1. All of the following are true about Kernicterus EXCEPT:

a) Kernicterus is due to Unconjugated Hyperbilirubinemia

b) Yellowish staining of Basal Ganglia is seen

c) Prematurity is a risk factor

d) Not associated with increased morbidity

Correct Answer - D

Not associated with increased morbidity REF: Nelson 17^{1h} edition page 687

KERNICTERUS OR BILIRUBIN ENCEPHALOPATHY:

- Kernicterus, or bilirubin encephalopathy, is a neurologic syndrome resulting from the deposition of unconjugated bilirubin in the basal ganglia and brainstem nuclei.
- The greatest risk associated with hyperbilirubinemia is the development of kernicterus (bilirubin encephalopathy) at high indirect serum bilirubin levels.
- The level of serum bilirubin associated with kernicterus is dependent in part on the cause of the jaundice. Kernicterus has developed when bilirubin levels exceed 30 mg/dL, although the range is wide (21-50 mg/dL).
- Its onset is usually in the 1st wk of life, but it may_be delayed to the 2nd-3rd wk.
- Kernicterus develops at lower bilirubin levels in preterm infants and in the presence of asphyxia, intraventricular hemorrhage, hemolysis, or drugs that displace bilirubin from albumin. The exact serum bilirubin level that is harmful for VLBW infants is unclear. Kernicterus does occur in patients with breast milk jaundice but is very uncommon.

- The surface of the brain is usually pale yellow. On cutting, certain regions are characteristically stained yellow by unconjugated bilirubin
- Overt neurologic signs have a grave prognosis; 75% or more of such infants die, and 80% of affected survivors have bilateral choreoathetosis with involuntary muscle spasms. Mental retardation, deafness, and spastic quadriplegia are common. Infants at risk should have screening hearing tests.

2. Definition of childhood is under what age?

a) 8 years

b) 10 years

c) 12 years

d) 16 years

Correct Answer - C
12 years REF: Nelson Textbook of Paediatrics 17th edition different pages

Infancy	0-1 yr
Toddlerhood	1-3 yr
Early childhood (toddlerhood and some time afterwards)	1-4 yr
Middle Childhood (School Age)	6-12 yr
Preschool	2-5 yr
Adolescence (onset of puberty to maturity)	12-20 yr
Adulthood (full physical and intellectual maturity)	20-21 yr onwards

3. **A baby has stated to get his first milk teeth. His age is approximately:**

a) 3 months

b) 6 months

c) 9 months

d) 12 months

Correct Answer - B

Most babies have their first primary (milk) teeth erupt at age 6 month of age and first secondary teeth erupt at age 6 years.

The teeth in the upper jaw erupt earlier than those in the lower jaw, except for lower central incisors. The lower central incisors appear, commonly, between the ages of 5 and 8 months. The upper central incisors appear a month later and the lateral incisors usually within the next three months. The first molar teeth appear around the age of 12-15 months, preceding the eruption of canine teeth by 6 months, which appear between the age of 18 and 21 months. The second molars are out at the age of 21 to 24 months.

Note: Permanent teeth eruption is in the following order: 1st molar - 6 years; central and lateral incisors - 6-8 years; canines and premolars - 9-12 years; second molars - 12 years; third molars - 18 years or later.

Ref: Ghai Essential Pediatrics by O P Ghai, 6th edition, Page 6 ; Nelson Textbook of Paediatrics 17th edition page 18 & 37

4. **Which of the following statement is true for physiological jaundice in neonate?**

a) Occurs in the first 6 hours of delivery

b) Neurological sequelae are common

c) Best treated by phototherapy

d) Starts on 2nd day of life

Correct Answer - D
Most neonates develop visible jaundice due to elevation of unconjugated bilirubin concentration during their first week.
This common condition is called Physiological jaundice.
It lasts for 5 days in term infants & 7 days in preterm infants.
It doesnot require any treatment & disappers spontaneously. In pathological jaundice clinical jaundice will appear in the first 24hrs of life.
Ref: Nelson, 18th Edition, Pages 760-761; O P Ghai, 6th Edition, Pages 170-171.

5. **Which of the following is not a feature of Juvenile Idiopathic Arthritis?**

a) Rheumatoid nodules

b) Spikes of high fever

c) Uveitis

d) Raynaud's phenomenon

Correct Answer - D

Raynaud's Phenomenon is not mentioned in association with Juvenile Idiopathic Arthritis (JIA).

Ref: Current Diagnosis and Treatment in Rheumatology, 2nd Edition, Pages 196-197; Nelson’s Textbook of Pediatrics, 18th Edition, Page 1003; Primer on The Rheumatic Diseases By John H. Klippel, Page 145

6. Which one of the following statements is false about Xanthogranulomatous pyelonephritis in children?

a) Often affects those younger than 8 years of age

b) It affects the kidney focally more frequently than diffusely

c) Clinical presentation in children is same as in adults

d) Boys are affected more frequently

Correct Answer - D
It is most frequently affected in females compared to males. It is an unusual form of chronic pyelonephritis characterized by granulomatous abscess formation, severe kidney destruction, and a clinical picture that may resemble renal cell carcinoma and other inflammatory renal parenchymal diseases.

Xanthogranulomatous pyelonephritis is a form of chronic pyelonephritis characterised by destruction of renal parenchyma and the presence of granulomas, abscesses and collection of lipid laden foamy macrophages (foam cells).

Xanthogranulomatous pvelonephritis in children

* Age of presentation ranges from infancy to 16 years.

* *Focal firm being more common in children* Appear healthy.

* Those who affected diffusely, present with *non-specific symptoms* of chronic infection.

i) Weight loss ii) Fever iii) Lethargy iv) Failure to thrive

* *Proteus* is the most common causative organism.

Ref: By James Pattison, David Goldsmith, Barrie Hartley, Fernando C. Fervenza and Joseph P. Grande (2004), Chapter 6, “Renal Infections and Structural Abnormalities”, In the book, “A Colour Handbook of Renal Medicine”, UK, Page 100.

7. Which of the following agents is most commonly associated with recurrent meningitis due to CSF leaks?

a) Meningococci

b) Pneumococci

c) Hemophilus Influenza

d) E. Coli

Correct Answer - B

Intracranial CSF leaks cause bacterial meningitis, about 80% are caused by S. Pneumoniae. Other causative organisms are meningococcus, Hemophilus species and S.aurues.

Ref: Clinical Pediatric Neurology By Ronald B. David, Page 217

8. **Which of the following is a marker for neural tube defects?**

a) ↑Phosphatidylesterase

b) ↑Pseudocholinesterase

c) ↑Acetylcholinesterase

d) ↑Butyrylcholinesterase

Correct Answer - C
Neural tube defects are associated with high levels of Acetylcholinesterase.

Ref: Genetic disorders and Fetus, 4th Edition, Page 673; Ian Donald's Practical Obstetric Problem By Renu Misra, 6th Edition, Page 44
* In intra embryonic life, neural tube is open at both end and freely communicate with amniotic cavity. Failure of closure of neural tube results in persistent of this communication. This allows excretion of following fetal substances into amniotic cavity ?
- Alpha - fetoprotein
- Acetylcholinesterase
* These serve as biochemical markers for NTDs for prenatal diagnosis.

9. Child draws triangle at what age ?

a) 3 years

b) 5 years

c) 6 years

d) 7 years

Correct Answer - B
Ans. is 'b' i.e., 5 years

Age	**Milestone**
12-24 months	Tries to scribble spontaneously
2 years	Draws a vertical or horizontal line
3 years	Draws a circle
4 years	Draws a cross (plus sign) and draws a rectangle
5 years	*Draws a triangle*

10. A child is able to build blocks of 5 Cubes developmental age is -

a) 12 months

b) 15 months

c) 18 months

d) 24 months

Correct Answer - C
Ans. is 'c' i.e., 18 month

Bang 2 cube - 8 month
Tower of 2 cubes - 15 month
4 cubes - 18 month
6 cubes - 22 month

11. A child is able to say short sentences of 6 words -

a) 2 years

b) 3 years

c) 4 years

d) 5 years

Correct Answer - C
Ans. is 'c' i.e., 4 years
o 2 word sentences = 19 month
o 6 word sentences = 48 month
o 10 word sentences = 60 month

12. Delayed dentition is seen in all/except *?*

a) Down syndrome

b) Congenital hypothyroidism

c) Rickets

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Causes of delay in tooth eruption :
1) Impacted teeth 4) Cong hypothyroidsm
2) Down syndrome 5) Gaucher
Cleidocranial dysplasia 6) Osteo petrosis

13. When ICF and ECF of child becomes equal to adult person -

a) 1 year

b) 2 year

c) 3 year

d) 4 year

Correct Answer - A
Ans. is 'a' i.e., 1 year
o In fetus, ECF is much larger than ICF.
o By the age of 1 year, ratio of ICF to the ECF volume approaches adult level.

14. Upper segment to lower segment ratio in 3 yr age child is -

a) 12

b) 1.3

c) 1.4

d) 1.6

Correct Answer - B
Ans. is 'b' i.e., 1.3
o The lower segment extends from the symphysis pubis to the heels.
o The lower segment grows rapidly after birth as compared to upper segment giving rise to the gradual reduction in the upper segment/lower segment ratio with the progression of age.

Age	***Upper segment : Lower segment ratio***
At birth	1.7 : 1.0
3 years	1.3 -1.0
At 7 years	1.0 : 1.0
Thereafter	1.0:1.1

15. A newborn baby has a head circumference of 35 ems. at birth, His optimal head circumference will be 43 ems at -

a) 4 months of age

b) 6 months of age

c) 8 months of age

d) 12 months of age

Correct Answer - B
Ans. is 'b' i.e., 6 months of age
o At 6 month of age head circumference is between 40.0-43.5cm.

16. Vocabulary of 1.5 year old child is -

a) 1-10 words

b) 10-20 words

c) 20-30 words

d) 30-40 words

Correct Answer - B
Ans. is 'b' i.e., 10-20 words

- At 18 months, the child can use 10 words with meaning.
  Other milestones asked in the question are achieved in children older than 18 months :?
- Making a tower of 9 cubes - 30 months
- Turn pages of book one at a time - 2 years
- Ride tricycle - 3 years

17. All of the following are essential features of attention deficit hyperactive disease (ADHD) except -

a) Lack of concentration

b) Impulsivity

c) Mental retardation

d) Hyperactivity

Correct Answer - C
Ans. is 'c' i.e., Mental Retardation
Inattentive

This must include at least 6 of the following symptoms of inattention that must have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

- Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- Often has difficulty sustaining attention in tasks or play activities
- Often does not seem to listen to what is being said
- Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
- Often has difficulties organizing tasks and activities
- Often avoids or strongly dislikes tasks (such as schoolwork or homework) that require sustained mental effort
- Often loses things necessary for tasks or activities (school assignments, pencils, books, tools, or toys)
- Often is easily distracted by extraneous stimuli

- Often forgetful in daily activities

Hyperactivity/impulsivity

This must include at least 6 of the following symptoms of hyperactivity-impulsivity that must have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

- Fidgeting with or tapping hands or feet, squirming in seat
- Leaving seat in classroom or in other situations in which remaining seated is expected
- Running about or climbing excessively in situations where this behavior is inappropriate (in adolescents or adults, this may be limited to subjective feelings of restlessness)
- Difficulty playing or engaging in leisure activities quietly
- Unable to be or uncomfortable being still for extended periods of time (may be experienced by others as “on the go” or difficult to keep up with)
- Excessive talking
- Blurting out answers to questions before the questions have been completed
- Difficulty waiting in lines or awaiting turn in games or group situations
- Interrupting or intruding on others (for adolescents and adults, may intrude into or take over what others are doing)

Other

- Onset is no later than age 12 years
- Symptoms must be present in 2 or more situations, such as school, work, or home
- The disturbance causes clinically significant distress or impairment in social, academic, or occupational functioning
- Disorder does not occur exclusively during the course of schizophrenia or other psychotic disorder and is not better accounted for by mood, anxiety, dissociative, personality disorder or substance intoxication or withdrawal

18. Drugs used in ADHD are -

a) Atomoxetine

b) Methylphenidate

c) Dextro-amphetamine

d) All

Correct Answer - D
Ans. is 'a' i.e., Atomoxetine; 'b' i.e., Methylphenidate; 'c' i.e., Dextro-amphetamine
Some common stimulants used to treat ADHD include:

- **Adderall** (**amphetamine**)
- **Ritalin** (**methylphenidate**)
- **Concerta** (**methylphenidate**)
- Focalin (dexmethylphenidate)
- Daytrana (**methylphenidate** patch)
- Metadate or **Methylin** (**methylphenidate**)
- Dexedrine or **Dextrostat** (dextroamphetamine)
- Vyvanse (lisdexamfetamine dimesylate)

19. A 3 year old boy with normal developmental milestones with delayed speech and difficulty in communication and concentration. He is not making friends. Most probable diagnosis is *?*

a) Autism

b) ADHD

c) Mental retardation

d) Specific learning disability

Correct Answer - A
Ans. is 'A' i.e., Autism
Delayed speech, difficulty in communication and concentration in a 3 year old child suggests the diagnosis of autism.
Autism is characterized by impaired social interaction and communication, and by restricted and repetitive behavior. These signs all begin before a child is three years old.
Autism affects information processing in the brain by altering how nerve cells and their synapses connect and organize
It is one of three recognized disorders in the autism spectrum, the other two being Asperger syndrome, which lacks delays in cognitive development and language, and pervasive developmental Disorder-not otherwise specified (commonly abbreviated as PDD-NOS)

20. The following are characteristic of autism except -

a) Onset after 6 years of age

b) Repetitive behaviour

c) Delayed language development

d) Severe deficit in social interaction

Correct Answer - A
Ans. is 'a' i.e., Onset after 6 years of age
Autism

- Autism is a neurologic disroder characterized by ?
1. Qualitative impairment in social interaction
2. Qualitative impairment in communication.
3. Restricted repetitive and streotyped patterns of behaviour, interests, and activities.

- *Onset of symptoms is usually before 3 years of age.*
- 3-5 times more common in boys, but more *severe* when occurs in girls.
- More common among *low socio-economic groups.*

21. 5 year old child bed wetting Rx of choice ?

a) No treatment

b) Imipramin

c) Desmopressin

d) Motivational therapy

Correct Answer - A
Ans. is 'a' i.e., No treatment
o *No treatment is given to children below 6 years of age because of high spontaneous cure rate. o* After 6 years treatment include.
t) Behavioral therapy : This is the treatment of choice.
it) Pharmacological treatment : It is used when non-pharmacological (behavioral) therapy fails. *Desmopressin is the drug of choice.* Other drugs used are *impramine and oxybutinin.*

22. What is thelarche -

a) Pubertal breast enlargement in boys

b) Breast enlargement in pregnancy

c) Hormone related breast enlargement in girls

d) Post hormonal therapy breast enlargement in postmenopausal females

Correct Answer - C
Ans. is 'c' i.e., Hormone related breast enlargement in girls
Thelarche
o Definition :- Begining of secondary (Post natal) breast development at onset of puberty in girls.
Tanner stage 2 breast development
Usually after 8 years of age
Because of rising level of estradiol
Breast development during puberty in male termed as gynaecomastia not thelarche.

23. Selenium deficiency is seen in -

a) Keshan disease

b) Wilson disease

c) Acrodermatitis enteropathica

d) None of above

Correct Answer - A
Ans. is 'a' i.e., Keshan disease
o Keshan disease ---> Disorder of Se metabolism
o Wilson's disease ---> Disorder of Cu metabolism
o Acrodermatitis enteropathica --> Disorder of Zn metabolism

24. Diarrhoea in *a* child of 12 month, dose of Zinc is ?

a) 1 mg / 10 - 14 day

b) 10 mg / 10 - 14 day

c) 15 mg/ 10- 14 day

d) 20 mg / 10 - 14 day

Correct Answer - D
Ans. is 'd' i.e., 20 mg/10-14 days
According to WHO guidlines
Dose of Zinc
2 month - 6 month = 10 mg / day x 14 days > 6 months = 20 mg/day x 14 days

25. Phrynoderma is due to ...deficiency-

a) Vitamin D

b) Niacin

c) Vitamin A

d) Essential fatty acid

Correct Answer - D
Ans. is 'd' i.e., Essential fatty acid
In vitamin 'A' deficiency there is toad like skin also known as phrynoderma.
o But this is due to associated deficiency of essential fatty acids.

26. All of the following are features of prematurity in a neonate, except -

a) No creases on sole

b) Abundant lanugo

c) Thick ear cartilage

d) Empty scrotum

Correct Answer - C
Ans. is 'c' i.e., Thick ear cartilage
The ears in a premature neonate are soft and flat with ear cartilage being deficient and pliant (and not thick)
Features of prematurity in a Neonate :
o Baby is small in size usually less than 47 cm long.
o Head is relatively large, sutures are widely separated and fontanelle are large
o Face is small and buccal pad of fat is minimal

- Skin is thin and pinkish and appears shiny due to generalized edema.
- *Skin is covered with abundant lanugo and there is little vernix caseosa.*
- Subcutaneous fat is reduced
  o The breast nodule is less than 5 mm wide
  o The ears are soft and flat with ear cartilage being deficient and pliant
  o Testes are not descended into scrotal sac. (Empty scrotum)
- Scrotal sac is poorly pigmented and has less rugosities.
  o In females labia majora appears widely separated, exposing the labia minora and the clitoris.
  o *Deep creases are not well developed in the sole.*

(There may be a single deep crease over the anterior one third of the sole) o Neonatal reflexes such as Moro, Suckling & Swallowing are sluggish.
o There is hypotonia with a poor recoil of flexed forearm when extended.

27. A baby is born at 27 weeks of gestation required mechanical ventilation for next 4 weeks & 0_2 for next 1 week. He maintained at room temperature subsequently. As per new Bronchopulmonary dysplasia definition, he has which of the following ?

a) Mild BPD

b) Moderate BPD

c) Severe BPD

d) No BPD

Correct Answer - A
Mild
Supplement O2 (for 28 days) and
< 32 weeks GA Breathing room air at 36 weeks at birth corrected GA or at discharge (whichever comes first).
. 32 weeks GA Breathing room air by 56 days at birth postnatal age or at discharge (whichever comes first).
• The baby in question falls in category < 32 weeks gestation age at birth.
• Simply looking at question, answer seems to be sever BPD as mechanical ventilation (positive pressure ventilation) has included only in diagnostic criteria of sever BPD.
• But, This baby was born at 27 weeks of gestation and required mechanical ventilation for 4 more weeks, i.e. upto 31 weeks corrected gestational age. After that he maintained at room air.

Thus, at 36 weeks corrected gestaional age, baby is breathing at room air —> diagnostic criteria of mild BPD.

28. Which of the following is the principal mode of heat exchange in an infant incubator ?

a) Radiation

b) Evaporation

c) Convection

d) Conduction

Correct Answer - C
Ans. is 'c' i.e., Convection
"Convection warmed incubators are being routinely used for thermal regulation of the premature neonate's ambient air" - Ghai 6'/e 154

29. Dose of i.v. adrenaline in term infant is during neonatal resuscitation -

a) 0.1 - 0.3 ml/kg in 1:1000

b) 0.3 - 0.5 ml/kg in 1:1000

c) 0.1-0.3 ml/kg in 1:10,000

d) 0.3 - 0.5 ml/kg in 1:10,000

Correct Answer - C
Ans. is c i.e., 0.1-0.3 mUkg in 1:10,000
Dose or adrenlaine ?
0.1 ml/kg to 0.3 inlikg diluted (1: I0,000)
Routs : (1) Intravenous (umbilical vein) or
(2) Endotracheal
Indication ?
HR < 60/min after 30 sec. of positive pressure ventilation & chest compression

30. Causes of conjugated hyperbilirubinemia is ?

a) Rotor syndrome

b) Breast milk jaundice

c) Crigler najjar

d) Gilbert syndrome

Correct Answer - A
Ans. is 'a' i.e., Rotor syndrome

- Conjugated hyperbilirubinemia is seen when ?
  i) Impaired secretion of conjugated bilirubin into bile -> *Dubin Johnson syndrome, Rotor syndrome.*
  ii) Impaired bile flow —> *Obstructive jaundice,* primary *biliary cirrhosis, Neonatal cholestasis, e.g. Extrahepatic biliary atresia/neonate idiopathic hepatitis, Choledocal cyst, Sclerosing cholangitis, Caroli disease, Metabolic* (Tyrosinemia, Wolman disease, Nieman pick disease, Galactosemia, Fructosemia).

31. Maximum concentration of dextrose that can be given through peripheral vascular line in neonate -

a) *5*

b) 10

c) 12.5

d) 25

Correct Answer - C
Ans. is 'c' i.e., 12.5
o Hypoglycemia in neonates is blood sugar < 40 mg/dl
o Common in preteen, IUGR, infant of diabetic mothers
o Treated by breast feed, formula feed & I.V. dextrose solution

- In symptomatic hypoglycemia 2 ml/g 10% Dx IV bolus given then increase dextrose contents of intravenous fluid.
- Don't give > 12.5% dextrose infusion through peripheral line because of risk of thrombophlebitis. (Prefer central line)

32. Hyperglycemia in Neonate if blood sugar is above ?

a) *150* mg/dl

b) 125 mg/dl

c) 180 mg/dl

d) 100 mg/dl

Correct Answer - B
Ans. is 'b' i.e., 125 mg/dl
o No established definition of neonatal hyperglycemia and upper safe limit of blood glucose has been determined
o Various researches has suggested
Whole blood glucose > 125 mg/dl
Plasma glucose > 150 mg/dl

33. Hypoxic Ischemic encephalopathy true is *?*

a) Lower limbs affected more than upper limbs

b) Prox. Muscles > distal muscles

c) Seizure

d) Trunk involved

Correct Answer - C
Ans. is 'c' i.e., Seizure
<u>Clinical features of hvpoxic ischemic encephalopath'</u>
o Encephalopathy progress over time *?*
1) Birth to 12 hours —> Decreased level of conciousness, poor tone, decreased spontaneous movement, periodic breathing or apnea, *seizures.*
2) 12-24 hours -4 *More seizuers,* Apneic spells, jitteriness, weakness.
3) After 24 hours —> Hypotonia, conciousness, poor feeding, brainstem signs (oculomotor) and pupillary disturbances.

34. Grasp reflex develops by -

a) 20 weeks

b) 24 weeks

c) 28 weeks

d) 32 weeks

Correct Answer - C
Ans. is 'c' i.e., 28 weeks

- Reflex- Age of appearance 32 - Age of disappearance (after birth)

35. Which of the following is best for transport of the newborn with maintainance of warm temperature *?*

a) Kangaroo Mother Care (KMC)

b) Transport incubator

c) Thermacol box

d) Hot bottle

Correct Answer - A
Ans is 'a' i.e., Kangaroo Mother Care (KMC)
"Preferably mother should accompany and baby can be transported in KMC position. Even father can provide KMC during transport if mother can not acompany."

36. Commonest type of cong. cyanotic heart disease is -

a) ASD

b) *SD*

c) TOF

d) PDA

Correct Answer - C
Ans. is 'c' i.e., TOF
Tetralogy of fallot is the commonest cyanotic congenital heart disease.
Cyanotic Congenitial heart diseases
o Cyanotic CHDs are *Right to Left shunts.*
o These are further divided into : ?
1) Cyanotic CHD with decreased pulmonary blood flow.
This group includes *TOF, Pulmonary atresia with intact septum, tricuspid atresia, total anomalous pulmonary venous return with obstruction.*
These lesions have following components : -
a)Obstruction to pulmonary blood flow at tricuspid right ventricular or pulmonary valve level.
b)A pathway by which systemic venous blood enters the systemic circulation via a patent foramen ovale or ASD or VSD.
Degree of cyanosis depends on the degree of obstruction to pulmonary blood flow : -
i) Mild obstruction
Cyanosis is precipitaed by stress, but may be absent at rest.
ii) Severe obstruction
Pulmonary blood flow is dependent on patency of the ductus

arteriosus. When the ductus closes (10-21 days), the neonate experience profound hypoxemia, cyanosis and shock.

2) Cyanotic CHD with increased pulmonary blood flow.

This group of lesions is not associated with obstruction to pulmonary blood flow.

Cyanosis caused by any of the following mechanisms.

i) Abnormal ventricular-arterial connection (e.g., Transposition of great vessels) In this, aorta arises from rt ventricle, So that systemic venous blood returning to the right atrium is pumped directly back to the body, and oxygenated blood returning from lung is pumped back into the lungs.

ii) Total mixing of systemic venous and pulmonary venous blood (e.g., total anomalous pulmonary venous return, truncus arteriosus, a common atrium or ventricle) Deoxygenated systemic venous blood and oxygenated pulmonary venous blood mix completely in the heart and, as a result, oxygen saturation is equal in the pulmonary artery and aorta. *If pulmonary blood flow is not obstructed, these infants have a combination of Cyanosis and heart failure. In Contrast, if pulmonary stenosis is present, these infants have cyanosis alone.*

37. ASD is associated with all except ?

a) Infective endocarditis

b) Stroke

c) Arrhythemia

d) Pulmonary hypertension

Correct Answer - A
Ans. is 'a' i.e., Infective endocarditis
o ASD is usually subtle and not having significant problem except mild growth disturbance.
o Ostium secundun ASD is M.C. type of ASD.
o Ostium secundum ASD usually associated with mitral valve prolopse or stenosis (Lutembacher's Syndrome). o Complication usually develop in 4^{th}clecade and include :
I) Pulmonary hypertension
2) Rt. sided heart failure
3) Stroke
4)Eisenmenger's syndrome
Infective endocarditis is very rare in ASD and not require any antibiotic prophylaxis.

38. The following features are true for tetralogy of Fallot, except -

a) Ventricular septal defect

b) Right ventricular hypertrophy

c) Atrial septal defect

d) Pulmonary stenosis

Correct Answer - C

Ans. is 'c' i.e., ASD

Tetralogy of Fallot

* The classical example of cyanotic patients with pulmonic stenosis is tetralogy of fallot.
* TOF is the commonest congenital heart disease.
* Constituents of TOF

Ventricular septal defect	Overriding or dextroposed aorta
Pulmonic stenosis	Right ventricular hypertrophy.

39. All of the following are characteristic features of Tricuspid Atresia except -

a) Left Axis deviation

b) Right ventricular hypoplasia

c) Pulmonary vascularity is diminished

d) Splitting of S_2

Correct Answer - D

Ans. is 'd' i.e., Spliting of S_2

Atresia of the tricuspid valve results in the absence of a communication between the right atrium and right ventricle therefore the right ventricle is underdeveloped the inflow portion being absent. The only exit for systemic venous blood coming to the right atrium is by way ofAtrial *Septa! defect.* Through this the blood goes to left atrium from where it enters left ventricle.

A *ventricular septal defect* provides communication between the left ventricle and the outflow portion of the right ventricle. The *left ventricle therefore maintain both the systemic as well as the pulmonary circulation* thus there is hypertrophy of the left ventricle which is reflected by *left axis deviation in ECG.*

The pulmonary blood flow *is dependent on the size of the ventricular defect,* the smaller the VSD, the lesser the pulmonary blood flow. *90% patients of Triscuspid Atresia have diminished pulmonary blood flow. o* Auscultatory finding in case of Tricuspid Atresia

S_1 -Normal S_2 - Single Murmur grade II to grade III / VI

40. True about Ebstein anomaly is?

a) Right ventricular dilatation

b) Right atrial dilatation

c) Left ventricular dilatation

d) Left atrial dilatation

Correct Answer - B

Ans. is 'b' i.e., Right atrial dilatation

Ebstein's anomaly

- Ebstein anomaly consists of downward displacement of an abnormal tricuspid valve into the right ventricle. o Normally tricuspid valve has three leaflets Anterior, posterior and septal.
- Fixed end of these leaflets is attached to valve ring in tricuspid area.
- In Ebstein anomaly, anterior leaflet is attached to valve ring as normal, but the other two leaflets (posterior and septal) are displaced downward and are attached to the wall of left ventricle.
- The portion of right ventricle above he tricuspid valve becomes a part of right atrium —÷ *atrialized right ventricle.* Hemodynamics
- The tricuspid valve anomaly results in obstruction of blood flow as well as regurgitation of blood from the right ventricle into the right atrium → Dilatation and hypertrophy of right atrium due to volume overload.
- Blood flows right atrium to left atrium through patent foramen ovale or ASD → Right to left shunt and cyanosis. Clinical manifestations

1. Cyanosis → Fatigue
2. Dyspnea on exertion → Paroxysmal attacks of tachycardia Signs
3. Cyanosis and clubbing → S., wider split but variable
4. Dominant V wave on JVP. → Right ventricular S3
5. Systolic thrill at the left sternal border → Right atrial S4.

S_i normal

- Systolic murmur due to regurgitation at tricuspid valve.
- Delayed diastolic murmur due to obstruction at tricuspid valve like tricuspid stenosis.
- Both systolic and diastolic murmur produced at the tricuspid valve have scratchy character like pericardial friction rib.

41. Steroids are given in rheumatic fever when there is-

a) Carditis

b) Chorea

c) Subcutaneous nodules

d) All

Correct Answer - A
Ans. is 'a' i.e., Carditis
Suppressive therapy of RF
o If patient has carditis with CHF —> Steroids

- If patients has carditis without CHF —> Steroids or aspirin (steroids are preferred)
- If patient does not have carditis —> Aspirin *The total duration of suppressive therapy is 12 weeks.*

42. In which of the following differential cyanosis found?

a) VSD with reversal of shunt

b) PDA with reversal of shunt

c) ASD with reversal of shunt

d) Tetralogy of Fallot

Correct Answer - B
Ans. is 'b' i.e., PDA with reversal of shunt
Differential cyanosis
o When one extremity is pink and the other extremity is cyanotic, it is referred to as differential cyanosis.

43. In child, foreign body in lung -

a) Rigid bronchoscopy

b) Chest x-ray

c) Flexible endoscopy

d) Direct laryngoscopy

Correct Answer - A
Ans. is 'a' i.e., Rigid bronchoscopy
o Treatment of choice is removal of foreign body by rigid bronchoscope with appropriate antibiotics.

44. In which disease, symptoms improve with crying -

a) Tetralogy of fallot

b) Choanal atresia

c) Bronchial asthma

d) All of above

Correct Answer - B
Ans. is 'b' i.e., Choanal atresia
o Bilateral choanal atresia is a very serious life-threatening condition because the baby is unable to breath directly after birth as neonates are obligate nasal breathers.
o In some cases, this may present as cyanosis while the baby is feeding because the oral air passages are blocked by the tongue.
o *The cyanosis may improve when the baby cries, as the oral airway is used at this time.*
o These babies may require airway resuscitation soon after birth.

45. 3 month infants with abdominal palpable mass & non bilious vomiting -

a) Hypertrophic biliary stenosis

b) Hypertrophic pyloric stenosis

c) Tracheoesophageal fistula

d) Duodenal atresia

Correct Answer - B
Ans. is 'b' i.e., Hypertrophic pyloric stenosis
Hypertophic pyloric stenosis

- Most common cause of nonbilious vomiting is Hypertrophic pyloric stenosis.
- Male > female.
- Vomiting starts with 3 week of age.
- Palpable mass is seen in epigastric region.
- Visible peristalsis is seen soon after feeding.
- Confirmed by USG abdomen.
- Contrast study shows :
  . Shoulder sign
  . Double tract sign.
- Treatment surgery = Ramstedt procedure.

46. Hirschsprung disease is confirmed by *?*

a) Rectal biopsy

b) Per/Rectal examination

c) Rectal manometry

d) X-ray abdomen

Correct Answer - A
Ans. is 'a' i.e., Rectal biopsy
o Rectal suction biopsy is procedure of choice.

47. Skip granulomatous lesions are seen in ?

a) Ulcerative colitis

b) Crohn's disease

c) Whipple's disease

d) Reiter's disease

Correct Answer - B
Ans. is 'b' i.e., Crohn's Disease
Features of CD

- In the affected segment, mesentric fat wraps around the bowel surface —> creeping fat
  o The intestinal wall is rubbery and thick, as a consequence of edema, inflammation, fibrosis, and hypertrophy of the muscularis propria —> lumen is almost always narrowed --> string sign on barium meal.
  o A classic feature of CD is the sharp demarcation of diseased bowel segments from adjucent uninvolved bowel. **o** When multiple bowel segments are involved, the intervening bowel is normal —> skip lesions. **o** There are *serpentine* linear ulcer along the axis of bowel.
- As the intervening mucosa tends to be relatively spared, the mucosa acquires a coarsely textured Cobblestone appearance.
  o Narrow fissures develop between the folds of the mucosa.
- Fissures can penetrate deeply through the bowel wall and leading to bowel adhesions and serositis. o Further extension of fissures leads to fistula or sinus tract formation.
  o There is transmural inflammation affecting all layers of bowel wall. Sarcoid like noncaseating granulomas may be present in all tissue layers.
  o Neutrophilic infiltration into the crypts results in formation of crypt

o Neutrophilic infiltration into the crypts results in formation of crypt abscess.
o Fibrosis of the submucosa, muscularis propria, and mucosa eventually leads to stricture formation.
There is an increased incidence of cancer of GIT in patients with long-standing CD, but the risk of cancer in CD is considerably less than in patients with chronic UC.

48. Most common cause of severe hematemesis in a child is-

a) Portal hypetension

b) Peptic ulcer

c) Mallory weiss syndrome

d) None of the above

Correct Answer - A
Ans. is 'a' i.e., Portal hypertension
"Massive hematemesis in a child is almost always due to variceal bleeding".
Variceal bleeding is due to portal hypertension.

49. Chronic constipation in children *is* seen in all A/E?

a) Hirschspring disease

b) Jejunal polyp

c) Hypothyroidism

d) Stricture

Correct Answer - B
Ans. is **'b' i.e.,** Jejunal polyp

- *Organic causes of constipation are :*

i) *Intestinal:* Hirschprung disease, Anal/rectal stenosis, Anal fissure, anteriorly displaced anal opening, strictures.
ii) *Drugs:* Narcotics, vincristine, Psychotropics.
iii) *Metabolic/endocrine: Cystic fibrosis, hypothyroidism,* Panhypopituitrism
iv) *Neuromuscular:* Cerebral palsy, Psychomotor retardation, spinal cord lesions, Myotonic dystophy, Neuropathy or myopathy of GIT
v) *Other causes: Low fibre diet,* Milk protein allergy.

50. "Potter's syndrome" is associated with -

a) Renal anomalies

b) Severe oligohydramnio's

c) Flattened nose

d) All the above

Correct Answer - D
Ans. is 'd' i.e., All of the above
Potter syndrome
Potter syndrome is characterized by -
i) *Bilateral renal agenesis*
ii) *Pulmonary hypoplasia*
iii) *Potter facies* --> widely separated eyes with epicanthic folds, low set ears, *broad compressed flat nose,* receding chin.
* This condition is incompatible with life, death occurs shortly after birth from pulmonary hypoplasia.
* Maternal USG demonstrates -
i) Oligohydramnios ii) Nonvisulization of bladder iii) Absent kidney

51. Not true about chronic pyelonephritis in children -

a) Associated with Ureteric reflux

b) Associated with Intrarenal reflux

c) Associated with renal scarring

d) Males are more affected than female

Correct Answer - D
Ans. is 'd' i.e., Males are more affected than female
o 3 basic forms of UTI - (1) Pyelonephritis (2) Cystitis (3) Asymptomatic bacteremia
Chronic Pyelonephritis :-
Characterised by renal inflammation & fibrosts induced by recurrent or persistent renal infection, vesicoureteric reflux or other causes of UTI.
Progressive renal scarring which leads to end stage renal diseaes.
In reflex nephropathy, Intrarenal reflex of infected urine induces renal injury which heals by renal scarring.
Being - straight, short & wide urethra, recurrent UTI is more common in female, so CPN is also twice as common is female than male.

52. Drug of choice for infantile spasm is?

a) Vigabatrin

b) Adrenocorticotropic hormone (**ACTH**)

c) Ethosuximide

d) Carbamazepine

Correct Answer - A
Ans. 'a' i.e., Vigabatrin
Vigabatrin (drug of choice), ACTH (2nd choice) and corticosteroids are used for *treatment.*

53. Most common cause of neonatal meningitis -

a) Staphylococcus

b) E. coli

c) H. influenze

d) Pneumococcus

Correct Answer - B
Ans. is 'b' i.e., E. coli
"Group B streptococcus followed by E.coli are the two most common causes of neonatal meningitis".
Most common cause of neonatal meningitis —› Group B streptococcus (Str. agalactiae) Second most common cause of neonatal meningitis -- E.coli

54. The most common cause of meningitis in children aged 5 yrs is-

a) H influnzae

b) N. meningitides

c) Staphylococcus

d) E.coli

Correct Answer - B
Ans. is 'b' i.e., N. meningitides
Commonest causes of meningitis

- *Neonatal - Group B streptococcus most common, E.coli second most common.*
- *2 months to 3 years • Pneumococci > Meningococci > H. influenzae*
- *3 years to 20 years Meningococcus*
- ***>** 20 years • Pneumococci*

55. Which is MC genetic cause of mental retardation -

a) Tuberous sclerosis

b) Cri-du-chat syndrome

c) Fragile-x-syndrome

d) Angel's syndrome

Correct Answer - C
Ans. is 'c' i.e., Fragile-X-syndrome
o Down's syndrome is the most common genetic cause of mental retardation, and fragile-X is second to Down's.
Also know
o Most common inherited cause of mental retardation is fragile-X-syndrome (because down's syndrome is congenital cause but not inherited).

56. Decorticate child - Flase statement is *?*

a) Acute Brain injurys

b) Susthalamic, CT & frontal lobe lesion

c) More dangerous than decerebrate lesion

d) Flexion of arm & extension of lower limb

Correct Answer - C
Ans. is 'c' i.e., More dangerous than decerebrate lesion
Decortical Posture
o Also known as flexor posturing or Mummy baby
o Arms flexed/bent over chest, hand fisted, leg extended & rotated inward
o Damage to area in cerebral hemisphere, internal capsule, thalamus & upper part of brain.
o Decorticate posture is ominous sign of severe brain damage.
Decerebrate posture
o Also known as extensor posturing
o Extension of upper limb & lower limb (ELBOW EXTENDED)
o Indicates brain stem damage (Below level of red nucleus)
o Decerebrate posture is more ominous than decortical posture

57. Which one of the following is the most common tumor associated with type I neurofibromatosis *?*

a) Optic nerve glioma

b) Meningioma

c) Acoustic schwannoma

d) Low grade astrocytoma

Correct Answer - A
Ans. is 'a' i.e., Optic nerve glioma
Neurofibromatosis type I (Von-Recklinghewsen disease)
o NF-1 is diagnosed when any two of the following seven signs are present.
1. Six or more cafe-au-lait macules
> 5 mm in prepupertal individuals
> 15 mm in postpubertal individuals
Cafe-au-fait spots are the hallmark of neurofibromatosis and are present in almost 100% of the patient.
2. Axillary or inguinal freckling
3. Two or more Lisch nodules.
Lisch nodules are hamartomas located within the iris.
4. Two or more neurofibroma or one plexiform neurofibroma.
Typically involve the skin, but may be situated along peripheral nerves and blood vessels.
They are small, rubbery lesions with a slight purplish discoloration of the overlying skin.
5. A distinctive osseous lesion.
Sphenoid dysplasia or cortical thinning of long bones.
6. Optic glioma

6. Optic glioma
7. A first degree relative with NF-1

Other findings are : -

Pseudoarthrosis of tibia.

Scoliosis is the most common orthopaedic problem in NF-1, but is not specific enough to be included as a diagnostic criterian.

Short stature

58. All of the following are features of juvenile CML except -

a) Thrombocytopenia

b) Fetal Hb is increased

c) Philadelphia chromosome is positive

d) Lymphadenopathy

Correct Answer - C
Ans. is 'c' i.e., Philadelphia chromosome is positive
Juvenile CML is mostly seen in children below 2 years of age. Philadelphia chromosome is negative and leukocyte count is less than 100'000/mm3.

Features	Adult CML	Juvenile CML
Age	10-12 years	< 2 years
Bleeding manifestation	Absent	Frequent
Thrombocytopenia	Uncommon	*Frequent*
Rash	Absent	Frequent
Lymphadenopathy	Rare	*Frequent*
Splenomegaly	Marked	Variable
WBC count at diagnosis	> 100'000	< 100'000
WBC type		

Granulocyte	Monocyte
• Normoblastic	
Unusual	Common
• *HbF*	
Normal	*Increased*
• Immunoglobulins	
Normal	Increased
• Muramidase levels	
Normal	Increased
• Response to Busulphan	
Good	Poor
• Survival	2.5-3 years
9 months	

59. Commonest tumor of face in chidren is-

a) Rhabdomyosarcoma

b) Sq. cell carcinoma

c) Basal cell carcinoma

d) Mixed parotid tumor

Correct Answer - A
Ans. is 'a' i.e., Rhabdomyosarcoma
<u>Rhabdomyosarcoma</u>
o The most common soft tissue sarcoma in children is rhabdomyosarcoma.
o The common site of involvement are : -
o *Head & Neck (25%) 2"^{d} most common* Extremities
Genitourinary (22%) —> 2nd most common
Retroperitoneum

60. Highest cure rate is of -

a) Wilm's Tumor

b) Retinoblastoma

c) Rhabdomyosarcoma

d) All

Correct Answer - B
Ans. is 'b' i.e., Retinoblastoma
Tumor
5 years survival rate
Retinoblastoma
97%
Wilms
tumor
88%
Rhabdomyosarcoma
61%

61. Most common benign tumours during infancy is-

a) Lymphangioma

b) Hemangioma

c) Cystic hygroma

d) Lipoma

Correct Answer - B
Ans. is 'b' i.e., Hemangioma
o Hemangiomas, the most common benign tumors of infancy, occur in 10% of term infants.

62. Male pseudohermaphroditism is seen in *?*

a) 5-a reductase deficiency

b) 21 hydroxylase deficiency

c) 17 hydroxylase deficiency

d) a and c

Correct Answer - D

Ans. is 'a' i.e., 5-a reductase deficiency; 'c' i.e., 17 hydroxylase deficiency

***Male* pseudohermaphroditism**

Genotype is XY

External genitalia are female

Causes of Male Pseudohermaphroditism

A. *Defect in testicular differentiation*

.. Deletion of short ann Y chromosome 3. Mixed gonadal dysgenesis (MGD).

2. XY pure gonadal dysgenesis. 4. Dysgenetic male pseudohennaphroditism (DMP).

B. *Defect in testicular hormone synthesis*

1. Leydig cell aplasia

2. Inborn error of testosterone biosynthesis

i) 17-alpha hydroxyalse deficiency iv) 3 beta-hydroxy steroid dehydrogenase deficiency.

ii) 17-20 lyase deficiency v) 20-22 desmolase deficiency

iii) 17-ketosteroid reductase deficiency.

C. *Defect in mullerian inhibiting hormone action*

D. *Defect in androgen action*

.. 5-alpha reductase deficiency 4. Reifenstein

syndrome

2. Testicular feminization syndrome
5. Undertermined etiology
3. Incomplete testicular feminization syndrome

<u>True hermaphroditism</u>

Both ovarian and testicular tissues are present either in the same (ovotestis) or opposite gonads.

63. Gonads to testes differentiation -

a) SRY gene

b) WNT-4 gene

c) DAX1 gene

d) None

Correct Answer - A
Ans. is 'a' i.e., SRY gene
o 46 XX chromosome with genetic factor such as *DAX1* and signalling molecule *WNT-4* are necessary for development of ovary.
o Y chromosome contains SRY gene which differentiates gonads to testes.

64. What stimulates the gonads in male at 8 week to secret testosterone -

a) Inhibin from corpus luteum

b) GnRH from hypothalamus of baby

c) Placental HCG

d) All of above

Correct Answer - C
Ans. is 'c' i.e., Placental HCG
During embryogenesis, In male embryo, at 6-7 week of gestatin, secretion of first anti-mullerian hormone (also k/o mullerian inhibiting substance) causes regression of mullerian duct.
Then at 8-12 week, under influence of Placental HCG, testes started producing testosterone.

65. Precocious puberty is seen in -

a) Hypothyroidism

b) CNS irridation

c) Mc cune-Albright syndrome

d) All

Correct Answer - D
Ans. is 'a' i.e., Hypothyroidism; 'b' i.e., CNS irradiation; 'c' i.e., Mc Cune Albright syndrome
Precocious puberty
o Puberty before the age of 8 years in girls or 9 years in boys is considered precocious puberty. o Menarche before the age of 10 years in girls is also considered as precocious.
o Precocious puberty is of two types
1. Central or true precocious puberty
Results from excessive GnRH, gonadotropins and target sex hormone elaborated by premature activation of hypothlamic pituitary-gonadal (HPG) axis.
2. Peripheral or pseudo-precocious puberty
Due to increased sex steroid secretion from either the adrenal gland or the gonads.
It is independent of HPG axis activation
Causes of Precocious puberty
A. Central precocious puberty
1. Idiopathic : Sporadic or familial.
2. Central nervous system abnormalities
i) Congenital anomalies of CNS: Hypothalamic hamartoma, hydrocephalus, porencephaly, arachnoid cysts.
ii) Acquired lesions of CNS : Inflammation, granuloma, trauma,

surgery, radiation, chemotherapy.
iii) Tumors of CNS : Pineal tumors, optic glioma, ependymoma, camiopharyngioma.
iv) Hypothyroidism
B. Peripheral precocious puberty : Isosexual
Girls
1. Ovarian causes : McCune-Albright syndrome, benign follicular cysts, granulosa-theca cell tumors; Gonadoblastoma
2. Adrenal causes : Feminizing adrenal neoplasia
3. Exogenous estrogen administration
Boys
1. Testis : Leydig cell tumor, adrenal rest tumor, testotoxicosis.
2. Adrenal: CAH (21 or 11-(3 hydroxylase deficiency), virilizing tumors.
3. hCG secreting tumors : Hepatoma, hepatoblastoma, choriocarcinoma, chorionepithelioma, teratoma, dysgerminoma.
Exogenous testosterone
C. Heterosexual precocity
1. Girls : Virilization in girls due to virilizing CAH, ovarian or adrenal neoplasia, polycystic ovarian disease.
2. Boys : Feminization due to estogen producing adrenal tumors, exogenous estrogen, marijuana smoking.
Note - Hypothyroidism usually causes delayed puberty, but juvenile hypothyroidism some times can cause precocious puberty.

66. Features of hypothyroidism in infancy include the following except-

a) Premature closure of posterior fontanelle

b) Coarse facies

c) Umbilical hernia

d) Constipation

Correct Answer - A
Ans. is 'a' i.e., Premature closure of posterior fontanelle
o There is delayed closure of posterior fontanelle.

67. The sodium content of ReSoMal (rehydration solution for malnourished children) is -

a) 90 mmol/L

b) 60 mmol/L

c) 45 mmoUL

d) 30 mmol/L

Correct Answer - C
Ans. is 'c' i.e., 45 mmol/L

	Old WHO ORS	Standard (hypo-osmolar) WHO ORS	ReSoMal
Osmolarity (mOsm/L)	311	245	300
Sodium Mmol/l	90	75	45
Potassium Mmol/l	20	20	40
Chloride Mmol/l	80	65	76
Glucose Mmol/l	111	75	125

68. Turner syndrome is maximally associated with *?*

a) Horseshoe kidney

b) Coarctation of aorta

c) VSD

d) ASD

Correct Answer - B
Ans. is 'b' i.e., Coarctation of aorta
Among the given options Aortic coarctation is most common.

- Turner's syndrome is commonly associated with congenital heart diseases.
- The most common anomaly associated is bicuspid Aortic valves in one third to one half of the patients (50%).
  - *Other congential anomalies associated with Turner's syndrome —> Aortic coarctation (30%), Aortic stenosis, Mitral valve prolapse, Anomalous pulmonary venous drainage.*

69. Barr body is absent in female having ?

a) 46 XX genome

b) 45 X0 genome

c) 47 XXX

d) All of above

Correct Answer - B
Ans. is 'b' i.e., 45 X0 genome
Barr body (Sex - chromatin)
o It is a densely staining inactivated condensed 'X' chromosome that is present in each somatic cells of female.
o It is found in the *nucleus.*
o It is used as a test of genetic *femaleness* it is possible to determine the genetic sex of an individual according as to whether there is a chromatin mass present on the inner surface of the nuclear membrane of cells with resting or intermitent nuclei.
Remember following fact and the question will seem very easy.

- *Chromatid body (Barr body or sex chromatin) is derived from one of the two X-chromosomes which becomes inactivated.*
- *The numer of Barr bodies is thus one less than the number of X-chromosomes.*

Note -
o Barr body is found in female But -
o Kleinefelter syndrome is male with Barr body.
o Turner syndrome is female without Barr body.

70. Rubella causes all except

a) Microcephaly

b) VSD

c) Conduction defect

d) All

Correct Answer - B
Ans. is 'b' i.e., VSD

- *Organ of corti : Sensorineural hearing loss (Most common clinical finding of congenital rubella).*
- *Heart : PDA (Most common CHD in congenital rubella), PS, VSD, ASD* TOF, pulmonary artery hypoplasia.
- *Eye : Cataract,* retinopathy, microphthalmia, myopia, glaucoma.
- CNS : *Mental retardation,* spastic diplegia, *microcephaly,* seizures, behavioral disorders.
- *Other :* IDDM, thyroid disorders, inguinal hernia, cryptorchidism, interstitial pneumonia.

71. Dengue shock syndrome is characterized by the following except -

a) Hepatomegaly

b) Pleural effusion

c) Thrombocytopenia

d) Decreased haemoglobin

Correct Answer - D
Ans. is 'd' i.e., Decreased hemoglobin
Dengue hemorrhagic fever

Fever	Minor or Major hemorrhgic manifestations
Hepatomegaly	Thrombocytopenia 100,000/mm3
Hypoalbuminemia	Objective evidence of increased capillary permeability (hematocrit 20%.)

Pleural effusion (by chest radiograph) [Nelson, 17/e, p 1093]
Criteria for Dengue shock syndrome

- It includes those for dengue hemorrhagic fever plus, Hypotension or narrow pulse.

72. Retinopathy of prematurity is commonly predisposed by-

a) Less gestation age

b) Low birth weight

c) O_2 toxicity

d) Carbohydrate excess

Correct Answer - A
Ans. is 'a' i.e., Less gestation age

73. Head control/ neck holding is possible in an infant by:
September 2012

a) 1 month

b) 2 months

c) 3 months

d) 6 months

Correct Answer - C
Ans. C i.e. 3 months

- When a child is tried to pull to sit :-
  i) Head lag --> Age is less than 4 weeks
  ii) Partial head lag —> 2-3 months
  iii) Head (Neck) Control ---> 3 *months.*
  iv) Lifting of head up --> 5 months.

74. Nocturnal enuresis may be considered normal upto:

March 2005

a) 3 years

b) 4 years

c) 5 years

d) 6 years

Correct Answer - D

Ans. D: 6 years

Nocturnal enuresis is normal upto 6 years while its normal upto the age of 4 years for daytime.

75. Acute malnutrition in a child is clinically assessed by:
September 2005

a) Body mass index

b) Weight for age

c) Height for age

d) Weight for height

Correct Answer - D
Ans. D: Weight for height
An indicator known as weight-for-height is used to determine whether a child is acutely malnourished or not. The child's weight is compared to the 'normal' weight for that height.
Based on this information, the World Health Organisation (WHO) has developed charts known as international standards for expected growth.
If a child's weight falls within the range considered normal for his/her height, the child is found to be well-nourished. If the weight is less than the international standards, the child is considered acutely malnourished or wasted. WHO has created cut-off points to indicate the severity of the malnutrition.
If a child's weight-for-height is less than -2 z-scores (or standard deviations) of normal children, s/he is considered to suffer from moderate acute malnutrition or wasting.
If the child's weight-for-height is less than -3 z-scores (standard deviations) of normal children s/he suffers from severe acute malnutrition and is considered to be severely wasted.
Another measurement used to determine a child's nutritional status is the mid-upper arm circumference (MUAC) measurement.

is the mid-upper arm circumference (MUAC) measurement.
Because MUAC measurements require a simple, colour-coded measuring band rather than weighing scales and height boards, they are often used during crisis situations.
Useful for children between six months and five years of age, a MUAC measurement of less than 12.5 cm indicates that a child is suffering from moderate acute malnutrition.
If the MUAC measurement is under 11.0 cm, however, the under-five child's life may be in danger as he or she is suffering from severe acute malnutrition.
Although no anthropometric measure is a perfect marker of acute malnutrition, in the past, there has been a tendency to view W/H measures as the gold-standard anthropometric measure to diagnose acute malnutrition in emergencies. Discrepancies between MUAC and W/H have therefore been explained by MUAC being a poor indicator of nutritional status.
A third way of diagnosing acute malnutrition is by testing for the presence of oedema.
Oedema affects a child's appearance, giving him or her a puffy, swollen look in either lower limbs and feet or face.
It can be detected by small pits or indentations remaining in the child's lower ankles or feet, after pressing lightly with the thumbs.

The presence of oedema in both feet and lower legs is always considered a sign of severe acute malnutrition.

76. All of the following are true for Turners syndrome except:
March 2012

a) Height is more than 145 cm

b) Webbing of neck

c) Increased carrying angle

d) Coarctation of aorta may be seen

Correct Answer - A

Ans: A i.e. Height is more than 145

Turner syndrome

- Adult stature in Turner syndrome patients is less than 145 cm
- Associated congenital defects are common in heart (coarctation of aorta)
- Lymphedema,
- Short stature,
- Webbed neck,
- Low posterior hairline,
- Cubitus valgus (increased carrying angle),
- Finger deformities,
- Short 4th metacarpal,
- 45 X0 karyotype

Down syndrome

- MC trisomy,
- Brachycephalic skull,
- Hypotonia,
- Palpebral fissure slopes upwards,
- Marked epicanthic folds,

- Brushfield's spots,
- Increased nuchal fold thickness,
- Iliac index less than 60,
- Simian crease (single palmar crease),
- MC associated cardiac lesions: VSD
- Duodenal atresia, CML & transient myeloproliferative disorders are seen
- May be associated with Alzheimer's dementia,
- MC cause of down syndrome: Maternal non-disjunction

Klinefelter syndrome

- 47 XXY
- MC cause of hypergonadotrophic hypogonadism,
- Subnormal intelligence

Fragile X syndrome

- Large forehead,
- Large head,
- Macro-orchidism,
- Moderately to severely retarded

77. Prophylactic dose of vitamin K given to new born infants at delivery is ?

a) 1mg

b) 5mg

c) 10mg

d) 15mg

Correct Answer - A
Ans. is 'a' i.e., 1 mg
***Vitamin* K Deficiency in Newborns**

- The symptoms of vitamin K deficiency are due to hemorrhage
- Newborns are particularly susceptible to vitamin K deficiency because of low fat stores, low breast milk levels of vitamin K, sterility of the infantile intestinal tract, liver immaturity, and poor placental transport.
- Intracranial bleeding, as well as gastrointestinal and skin bleeding, can occur in vitamin K-deficient infants 17 days after birth.
- Thus, vitamin K (1 mg IM) is given prophylactically at the time of delivery.

78. Cat bites in child treatment - false is

a) Cleaning the wound thoroughly

b) Puncture wound most common

c) May require rabies vaccination

d) All of above

Correct Answer - D
Ans. is `d' i.e., All of above

- The most common type of injury from cat and rat bites is a puncture wound. *Cat* bites often penetrate to deep tissue
- Infection is the most common complication of any type of bite injuries.
  - Treatment includes cleansing of wound, debridement, wound culture, tetanus and antirabies immunization, and initiation of antibiotics.
  - A *moxicillin-clavulanate is an excellent choice for empirical oral therapy for human and animal bite wounds because of its activity against most of the strains of bacteria that have been isolated from infected bite injuries.*

79. Most common GI malignancy of childhood

a) Adenocarcinoma

b) Lymphoma

c) Sarcoma

d) carcinoid

Correct Answer - B
Ans. is 'b' i.e., Lymphoma

- Over all hemangioma is most common Tumor in infant.
- Hemangioma is usually benign in Nature.
- Leukemia is most common malignancy in pediatric age gyp.
- 2"' most common is CNS Tumor = Lymphoma is the most common malignancy of the gastrointestinal tract in children. About 30% of children with non-Hodgkin lymphoma present with abdominal tumors.

80. Swallowing breathing reflex - not seen in fetus for ?

a) 14 weeks

b) 12 weeks

c) 16 weeks

d) Appear in all above period

Correct Answer - B
Ans. is 'b' i.e., 12 weeks
Behavioural deveopment in intrauterine life

- Muscle contractions first appear around 8 wk, soon followed by lateral flexion movements.
- By 13-14 wk, breathing and swallowing motions appear and tactile stimulation elicits graceful movements. o The grasp reflex appears at 17 wk and is well developed by 27 wk.
- Eye opening occurs around 26 wk.
- During the 3rd trimester, fetuses respond to external stimuli with heart rate elevation and body movements

81. Most common site of extra - pulmonary TB in children is ?

a) Abdominal

b) Genitourinary

c) Lymphnode

d) Congenital

Correct Answer - C
Ans. is 'c' i.e., Lymphnode

- Most common site of extra pulmonary TB is lymphnode
- Most children who develop tuberculosis disease experience pulmonary manifestations 25 to 35 percent of children have an extrapulmonary presentation.
- The most common extrapulmonary form of tuberculosis is lymphatic disease accounting for about two thirds of cases of extrapulmonary tuberculosis. the second most common form is meningeal disease occurring in 13% of patients

82. Characteristics of SMR-2 in boys ?

a) Appearance of pubic hair

b) Appearance of axillary hair

c) Enlargement of scrotum

d) All of above

Correct Answer - C
Ans. is 'c' i.e., Enlargement of scrotum
Scanty & long pubic hair appear at SMR-2. Enlargement of scrotum is there at SMR-2.

83. Pedigree analysis chart?

a) Used for growth monitoring

b) To assess side effect during chemotherapy

c) Used to see gentic transmission

d) To assess developmental delay in infant

Correct Answer - C
Ans. is 'c' i.e., Used to see genetic transmission
Pedigree

- Provide graphic depiction of a family structure medical history.
- Person providing information is formed as **proband.**
- Special symbol is used for each designation.
- Three generation pedigree should be made.
- Closer the relationship of proband to the person, greater is change of shared genetic component.

84. 21-Hydroxylase deficiency - false is ?

a) Most common cause of congenital adrenal hyperlasia

b) Autosomal recessive

c) Femal pseudo hermaphroditism

d) Male pseudo hermephroditism

Correct Answer - D
Ans. is 'd' i.e., Male pseudo hermephroditism
<u>Congenital adrenal hvperplasia (CAH)</u>

- Group of AR disorder
- MC adrenal disorder in childhood
- Most common 21-hydroxylase deficiency =There is elevated level of pregenolone, 17 -OH pergenelone DHEA and decreas level of progesterone, deoxycortisol,and estradiol so 21 hydroxylase deficiency causes female pseudohermaphroditism.

85. AML best prognosis is seen with ?

a) Acute myelo monocytic leukemia.

b) Acute monocytic leukemia.

c) Acute promyeloblastic lukemia (M.3).

d) Erythro leukemia

Correct Answer - C
Ans. is 'c' i.e., Acute promyeloblastic leukemia (M.3)
Acute promycloblastic leukemia

- Also known as M-3
- Associated with t(15:17)
- DIC, chloromas common
- Very responsine to retinoic acid combined with anthracylines.
- M.7 (acute megakaryocytic leukemia) mostly seen in down syndrome.
- French-American-British (FAB) Classification of Acute Myelogenous Leukemia

86. Ideal time to start Iron therapy in a marasamic child with fever and hemoglobin 7 gm% is

a) Immedietly

b) At discharge

c) When fever goes down

d) At any time

Correct Answer - C

Ans. is 'c' i.e., When fever goes down

- Iron at 3 mg/kg 1 day should started when child gaining weight once stabilisation phase is over. o The core of the accepted WHO management protocol is 10 steps in two phases ?

.. Stabilization

2. Rehabilitation.

- These 10 essential steps are listed below:

.. Treat/prevent hypoglycemia;

2. Treat/prevent hypothermia;

3. Treat/prevent dehydration;

4. Correct electrolyte imbalance;

5. Treat/prevent infection;

6. Correct micronutrient deficiencies;

7. Start cautious feeding with F-75;

8. Achieve catch-up growth by feeding F-100 after appetite returns;

9. Provide sensory stimulation and emotional support; and

0. Prepare for follow-up after recovery

- F-75 is the "starter" formula used during initial management of malnutrition, beginning as soon as possible and continuing for 2-7

days until the child is stabilized. Severely malnourished children cannot tolerate normal amounts ofprotein and sodium or high amounts offat. They may die i f given too much protein or sodium. They also need glucose, so they must be given a diet that is low in protein and sodium and high in carbohydrate. F-75 has is specially mixed to meet the child's needs without overwhelming the body 's systems in the initial stage of treatment. Use of F-75 prevents deaths. F-75 contains 75 kcal and 0.9 g protein per 100 ml.

- As soon as the child is stabilized on F-75, F-100 is used as a "catch-up" formula to rebuild wasted tissues. F100 contains more calories and protein: 100 kcal and 2.9g protein per 100 ml.

87. Most common cardio vascular abnormality in down syndrome is ?

a) VSD

b) Endocardial cushion defect

c) TOF

d) COA

Correct Answer - B

Ans. is 'b' i.e., Endocardial cushion defect

- About 40% of down syndrome have CHD.
- Endocardial cushion Atrio ventricular septal defect account for 40-60% of cases.
- Other feature in down syndrome.
- Hypotonia, flat face, upward and slanted palpebral fissures and epicanthic folds, speckled irises (Brushfield spot);varying degrees of mental and growth retardation;dysplasia of the pelvis, cardiac malformations, and simian crease;short, broad hands, hypoplasia of middle phalanx of 5th finger, duodenal atresia, and high arched palate;5% of patients with Down syndrome are the result of a translocation-t(14q21q), t(15q21q), and t(13q21q)-in which the phenotype is the same as trisomy 21.

Other feature ?

1. Duodenal atresia
2. Annular pancreas
3. Tracheoesophageal fistula
4. Hirschsprung disease
5. Short stature
6. Short sternum
7. Brachycephaly

3. Delayed fontanel closure
9. Three fontanels
0. Frontal sinus hypoplasia
1. Peripheral joint laxity
2. Atlantoaxial instability (C1-C2 subluxation)
3. Exaggerated space between
4. Mottled skin in infancy
5. Dry coarse skin in adolescence 1st and 2nd toes

Increased Risk for Development of -

- Leukemia:AML, ALL
- Myelodysplasia
- Transient lymphoproliferative syndrome
- Celiac disease
- Hypothyroidism
- Diabetes mellitus
- Obesity
- Refractive errors
- Strabismus
- Mitral valve prolapse
- Conductive and/or
- Obstructive sleep apnea
- Epilepsy sensorineural hearing loss
- ADHD
- Alzheimer disease
- Conduct oppositional disorders

88. Most common cause of lower respiratory tract infection in 3 year old child is

a) Klebsella

b) H-influenza

c) Streptococcal pneumonia

d) Staphe aureus

Correct Answer - C

Ans. is 'c' i.e., Streptococcal pneumonia

- *Most common cause of paediatric pneumonia is respiratory syncytial virus (RSV).* Other viruses causing pneumonia are *influenza virus (2^d most common virus),* adenovirus, rhinovirus, and parainfluenza virus.
- *Most common bacterial cause of pediatric pneumonia is streptococus pneumoniae (pneumococcus).* Bacteria causing atypical pneumonia commonly are *mycoplasma and chlamydia.*

89. Non-obstructive hydrocephalus - true is ?

a) Also kin communicating hydrocephalus

b) Due to obliteration of subarachrod cistemae or malfunction of arachnoid villi

c) Dilatation of all 4 ventricle

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above

- H hy_LQggPllalus is not a specific disease; rather, it represents a diverse group of conditions that result from impaired circulation and absorption of CSF or, in the rare circumstance, from increased production by a choroid plexus papilloma
- flyLk.QCSPLlalus resulting from obstruction within the ventricular system is called obstructive or noncommunicating hydrocephalus
- The CSF circulates from the basal cisterns posteriorly through the cistern system and over the convexities of the cerebral hemispheres.
- CSF is absorbed primarily by the arachnoid villi through tight junctions of their endothelium by the pressure forces that were noted earlier.
- CSF is absorbed to a much lesser extent by the lymphatic channels directed to the paranasal sinuses, along nerve root sleeves, and by the choroid plexus itself.
- Hydrocephalus resulting from obliteration of the subarachnoid cisterns or malfunction of the arachnoid villi is called nonobstructive or communicating hydrocephalus

90. Prader willi syndrome, chromosomal defect?

a) Chromosome 15

b) Chromosome 5

c) Chromosome 10

d) Chromosome 21

Correct Answer - A
Ans. is 'a' i.e., Chromosome 15

- Prader-Willi syndrome is a complex genetic condition that affects many parts of the body.
- In infancy, this condition is characterized by weak muscle tone (hypotonia), feeding difficulties, poor growth, and delayed development. Beginning in childhood, affected individuals develop an insatiable appetite, which leads to chronic overeating (hyperphagia) and obesity.
- Some people with Prader-Willi syndrome, particularly those with obesity, also develop type 2 diabetes mellitus (the most common form of diabetes).
- People with Prader-Willi syndrome typically have mild to moderate intellectual impairment and learning disabilities. o Behavioral problems are common, including temper outbursts, stubbornness, and compulsive behavior such as picking at the skin. Sleep abnormalities can also occur.
- Additional features of this condition include distinctive facial features such as a narrow forehead, almond-shaped eyes, and a triangular mouth; short stature; and small hands and feet. Some people with Prader-Willi syndrome have unusually fair skin and light-colored hair.
- Both affected males and affected females have underdeveloped

genitals. Puberty is delayed or incomplete, and most affected individuals are unable to have children (infertile).

91. Minimum interval between 2 live vaccine immunization ?

a) 2 weeks

b) 4 weeks

c) 6 week

d) 8 weeks

Correct Answer - B
Ans. is 'b' i.e., 4 weeks
Basic principle of immunization

- Minimum 4 week interval recommended between 2 live vaccine administration except OPV and oral typhoid.
- Two or more killed vaccine may be administrated simultaneously or at any given interval
- A live and killed vaccine given simultaneously but at different site.
- If immunisation status unknown, give age appropriate vaccine
- Mixing of vaccine in same syringe not recommended
- Live vaccine should be avoided in AIDS,

92. Fanconi's anemia - false is ?

a) Autosomal recessive

b) Pancytopenia

c) Type I RTA

d) All are true

Correct Answer - C
Ans. is 'c' i.e., Type **I** RTA
Fanconi anemia

- Autosomal recessive
- Pancytopenia
- Hyper pigmentation of trunk, neck, and inlertriginous area.
- Growth failure
- Fanconi facies (small head, small eyes)
- Renal abormality
- Proximal RTA (type II RTA)

Renal tubular acidosis 3 types

- Distal RTA (type I)
- Proximal RTA (type II)
- Hyperkalemic RTA (type IV)

93. In marasmus wasting is due to ?

a) Prolonge dietery deficiency of calori

b) Prolonge dietery deficiency of protein

c) Excess catabolism of fat & muscle mass to provide energy

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Marasmus

- Prolonge deficiency of calory & protein due to starvation.
- Monkey facies- loss of buccal fat.
- Baggy pants appearance- loose skin of the buttocks hanging down.
- Loss of axillary fat.
- Appetite is preserved.
- No edema.

94. A child having H/0 profuse watery diarrhoea not taking oraly and not passed urine since 2 days, what to be given

a) Milk

b) ORS

c) I.V. fluid

d) I.V. antibiotic

Correct Answer - C
Ans. is 'c' i.e., I.V. fluid

- Child having history of profuse watery diarrhoea with poor oral intake and not passed urine since 2 days is suffering from diarrhoea with dehydration and probably acute renal failure of pre renal types.
- Here best choice is intravenous I.V. fluid
- If I.V. access not possible, then you can give feed through Ryle's tube or intra osseous fluid.

95. Febrile seizure most common - age groups?

a) 1 month to 1 year

b) 6 month to 5 year

c) 6 month to 2 year

d) 2 month to 5 year

Correct Answer - B
Ans. is 'b' i.e., 6 month to 5 year
Febrile convulsion :-

- Commonest provoked seizure
- Between 6 months to 5 year
- Neurologically normal child
- Occurs when temp rise abruptly

Simple benign febrile convulsion

- Fits occur within 24 hour of onset of fever.
- Duration less than 10 min.
- Usually single per febrile episode
- Generalised type of convulsion

Atypical febrile seizures

- Presence of family history of epilepsy
- Neurodevelopmental retardation
- Focal neurological deficit.

96. Erythroposis starts in fetal liver during ?

a) 2-4 weeks

b) 4-6 weeks

c) 6-8 weeks

d) 8-10 weeks

Correct Answer - C

Ans. is 'c' i.e., 6-8 weeks

- Developmental hematopoiesis occurs in three anatomic stages:?

1. Mesoblastic
2. Hepatic
3. Myeloid

- Mesoblastic hematopoiesis occurs in extraembryonic structures, principally in the yolk sac, and begins between the 10th and 14th days of gestation.
- By 6-8 wk of gestation the liver replaces the yolk sac as the primary site of blood cell production, and by 10-12 wk extraembryonic hematopoiesis has essentially ceased.
- Hepatic hematopoiesis occurs in the liver throughout the remainder of gestation, although production begins to diminish during the second trimester as bone marrow (myeloid) hematopoiesis increases.
- The liver remains the predominant hematopoietic organ through wk 20-24 of gestation

97. Fluid of choice in child with burn < 24 hour is

a) Fresh frozen plasma

b) Isolye-P

c) Ringer lactate

d) Platlet tranfusion

Correct Answer - C
Ans. is 'c' i.e., Ringer lactate
Fluid resuscitation in burn injury

- Parkland formulaa
  a. Initial 24 hours: Ringer's lactated (RL) solution 4 ml/kg/% burn for adults and 3 ml/kg/% burn for children. RL solution is added for maintenance for children:

a. 4 ml/kg/hour for children weighing 0-10 kg
b. 40 ml/hour +2 ml/hour for children weighing 10-20 kg
c. 60 ml/hour + 1 ml/kg/hour for children weighing 20 kg or higher

- This formula recommends no colloid in the initial 24 hours.
  b Next 24 hours: Colloids given as 20-60% of calculated plasma volume. No crystalloids. Glucose in water is added in amounts required to maintain a urinary output of 0.5-1 ml/hour in adults and 1 ml/hour in children.

98. Antiendomysial antibody is used in screening of ?

a) Myasthenia gravis

b) Auto immune hepatitis

c) Coeliac diseases

d) Graves disease

Correct Answer - A
Ans. is 'a' i.e., Coeliac diseases

- Coeliac disea.se (CD) is a permanent intolerance of the small intestine to gluten, characterized by gluten-dependent changes in villous morphology and/or signs of immunological activation detectable in the lamina propria of intestinal mucosa.
- The presence of serum anti-endomysial antibodies (EMA) is generally considered to be highly suggestive for CD because of their high values of sensitivity and specificity.
- Other antibodies used for diagnosis
- Tissue transglutaminase,
- Antigliadin antibodies
- Treatment is Gluten-free diet

99. In congenital adrenal hyperplasia precocious puberty in male is due to ?

a) 21 alpha hydroxylase deficiency

b) 11(3 hydroxylase deficiency)

c) Both

d) None

Correct Answer - C
Ans. is 'c' i.e., Both
21 hydroxylase and 3-13-HSD
• Salt losing
• Virilization of female (Female pseudohermaphroditism)
• Precocious puberty in male

100. First sign of puberty in female ?

a) Tanner stage I

b) Tanner stage II

c) Pubic hair

d) Axillary hair

Correct Answer - B
Ans. is `b' i.e., Tanner stage 11
Thelarche- first sign of puberty in Girl around age of 10 year in Girl

- Definition :- Begining of secondary (Post natal) breast development at onset of puberty in girls.
- Tanner stage 2 breast development.
- Because of rising level of estradiol
- Breast development during puberty in male termed as gynecomastia not thelarche.

101. True about bartter's syndrome are all except ?

a) Hyperkalemic alkalosis

b) Presents in neonate with ototoxicity have bartin gene mutation

c) Decreased K^+ assorption from thick descending loop

d) Autosomal recessive

Correct Answer - A
Ans. is 'a' i.e., Hyperkalemic alkalosis

- Antibodies in coeliac disease are *anti-endomysian, antigliadin* and *anti-transglutaminase.*

102. Drug used in congenital heart disease to keep PDA patent

a) PGE_i

b) PGE2

c) PGI_2

d) Indomethacin

Correct Answer - A
Ans. is 'a' i.e., PGE,

- Prostaglandin El (PGE1) infusion usually effective in keeping the ductus arteriosus open before surgical intervention to reduce hypoxemia and acidemia before surgery in ductus dependent lesion like.
- Pulmonary atresia
- TOF with severe PS
- TOF with pulmonary atresia
- Transposition of great arteries with VSD and PS
- Indomethacin is used for ductal closure

103. Figure of 8 in chest X-ray ?

a) Supracardiac TAPVC

b) Tetralogy of fallot

c) TGA

d) None of above

Correct Answer - A
Ans. is 'a' Supracardiac TAPVC

- Tertralogy of fallot—* boot shaped heart
- Transposition of great vessel-* egg on side
- TPVC (supracardioe) --> snownan or figure of 8 configuration

104. False regarding croup is ?

a) Disease include epiglottis, laryngitis, laryngotrachictis

b) Brassy cough is main presenting feature

c) Causes upper airway obstruction

d) All of above

Correct Answer - C

Ans. is 'c' i.e., Causes upper airway obstruction

- Croup is variety of condition which include acute epiglottis, laryngitis, trachiobronchitis.
- Infection of lower respiratory tract.
- Brassy cough main presenting feature.
- Treatment
- Humidified
- I.V. fluid
- Antibiotics
- Nebulisation
- Steroid.

105. Most common intra abdominal solid organ tumor in child is ?

a) Neuroblastoma

b) Rhabdomyoblastoma

c) Wilm's tumor

d) Hypernephroma

Correct Answer - A
Ans. is 'a' i.e., Neuro blastoma

- Most common abdominal cancer of childhood.
- Most common cancer of infancy.
- *Most common extracranial solid tumor of childhood* (most common solid tumor of childhood is brain tumor).

106. Koplik spot true is ?

a) Pathognomic of measls

b) Present on buccal mucosa opposite P' molar

c) Always present

d) All of above

Correct Answer - A
Ans. is 'a' i.e., Pathognomic of measls
Measle

- Caused by RNA virus.
- Highly contagious droplet spread from secretion of nose and throat 4 day before and 5 days after rash.
- Secondary attack rate >90% in contact.
- Prodromal phase - characterized by fever, rhinorrhea, conjuctival congestion and dry hackig cough.
- Koplik spots-bluish-gray specks or "grains of sand" on a red base-develop on the buccal mucosa opposite the second molars
- Generally appear 1-2 days before the rash and last 3-5 days
- Pathognomonic for measles, but not always present
- Rash appears on D4 first behind pinna on neck the spread of face, thrunk and abdomen.
- SSPE is long term complication seen in measls.

107. Exchange blood transfusion what is used ?

a) Whole blood

b) EPP

c) Serum

d) Pack cell

Correct Answer - A
Ans. is 'a' i.e., Whole blood

- Exchange transfusion is the process of slowly removing patient blood and replacing with fresh donor whole blood.

108. Large PDA leads to ?

a) Endocardial valvulitis

b) Eisenmenger syndrome

c) CHF

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Patent ductus arteriosus (PDA)

- Small PDA may not cause any complication but large defect if untread may leads to :
- Pulmonary hypertension Left to Right shunt leads to too much circulation of blood in lung which leads to pulmonary hypertension.
- Eisenmenger's syndrome - Large standing pulmonary hypertension leads to permanent lung damage and causes Right to Left shunt.
- Endocarditis.
- Arrhythmia Enlargement of heart due to PDA increase risk of arrhythmias

109. ITP false is ?

a) Plattet transfusion should be avoided

b) Anticedent history of febrile illness

c) Overactive immune system

d) Steroid should be avoided

Correct Answer - D
Ans. is 'd' i.e., Steroid should be avoided
Idiopathic thrombocytopenic purpura (ITP)

- Commonest bleeding disorder presenting in children between 1-7 year of age.
- ITP is proposed to be occur due to over active immune response.
- Antecedent H/o febrile illness present.

Treatment

- Platlet transfusion should be avoided
- IVIG or steroid.

110. Posterior urethral valve - true A/E ?

a) Palpable bladder

b) Hydronephrosis

c) Painful stress incontinence

d) Recurrent UTI

Correct Answer - C
Ans. is `c' i.e., Painful stress incontinence
Posterior urethral valve

- Most common cause of severe obstructive uropathy in children.
- 30% of children experienced end stage renal disease/CRF
- Dilated prostatic urethra.
- Hypertrophy of bladder muscle
- Vesicouretic reflux seen in 50% of cases.
- *Back pressure change:*
- Hydronephrosis
- Distended bladder
- Thin urinary stream
- Recurent UTI because of urinary stasis

111. In infant, bone marrow biopsy is done from ?

a) Sternum

b) Iliac crest

c) Tibia

d) All of above

Correct Answer - C
Ans. is 'c' i.e., Tibia
Sternum : —>

- Hematopoitically active
- Site in cooperative patient like adult

Ilium :

- Apprehesive patient
- Useful in older children & adult

Tibia :

- Useful in newborn & infant and children below 2 year of age.

112. Most common malignancy in children is ?

a) ALL

b) AML

c) Neuroblastoma

d) Wilm's tumor

Correct Answer - A
Ans. is 'a' i.e., ALL

- Leukemia is most common malignancy in pediatric age group. o Leukemia / lymphoma = 40% (ALL is more common than AML)
- CNS Tumor= 30%
- Embryonal & Sarcoma =10%
- 2nd most common is CNS Tumor (30%)

113. Alopecia thin brittle nail, sparse hair with thin enamel diagnosis is ?

a) Ectodermal dysplasia

b) Alopecia aerata

c) Alopica congenita

d) None of above

Correct Answer - A
Ans. is 'a' i.e., Ectodermal dysplasia
Ectodermal dysplasia

- Group of syndrome
- All derived from ectodemal structure
- Abnormalities of two or more ectodermal structure such as
- Hair
- Teeth
- Nail
- Sweat gland
- Cranio facial structure
- Digit

114. Most common ASD is ?

a) Ostium primum

b) Patent foramen ovale

c) Ostium secondum

d) Sinus venosus

Correct Answer - C
Ans. is 'c' i.e., Osteum secondum
ASD can occur in any portion of atrial septum -

- Secundum
- Primum
- Sinus venosus
- Absent atrial septum (leads to single atrium)
- Ostium secondum defect
- Defect in region of fossa ovalis
- Most common form of ASD

115. Most common ASD in down syndrome is ?

a) Ostium primum

b) Ostium secundum

c) Absent atrial septum

d) Sinus venosus

Correct Answer - A
Ans. is 'a' i.e., Ostium primum

- About 40% children with down syndrome have congenital heart disease.
- Endocardial cushion defect (ASD with ostium primum) account for 40-60% of cases.

116. Sitting without support is appear at which month

a) 5 month

b) 6 month

c) 7 month

d) 8 month

Correct Answer - B
Ans. is 'b' i.e., 6 month

3 month	Neck holding
5 month	Roll over
6 month	Sits in tripod position
8 month	Sitting without support
9 month	Stand with support

117. Weight of child is 70% of normal according to IAP classification, categorised in ?

a) Mild

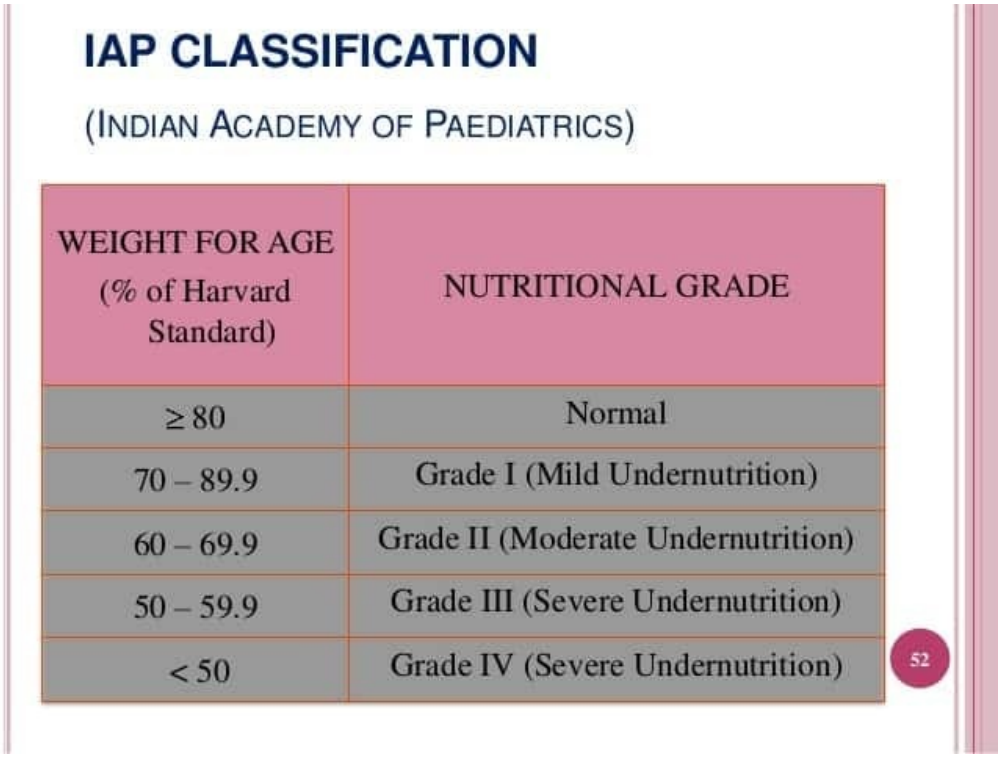
b) Moderate

c) Severe

d) Normal

Correct Answer - B

Ans. is `b' i.e., Moderate



IAP CLASSIFICATION

(INDIAN ACADEMY OF PAEDIATRICS)

WEIGHT FOR AGE (% of Harvard Standard)	NUTRITIONAL GRADE
≥ 80	Normal
70 – 89.9	Grade I (Mild Undernutrition)
60 – 69.9	Grade II (Moderate Undernutrition)
50 – 59.9	Grade III (Severe Undernutrition)
< 50	Grade IV (Severe Undernutrition)

52

118. Influenza vaccine cause ?

a) Local swelling

b) Fever

c) Itching

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Mild problems following inactivated flu vaccine:

- Soreness, redness, or swelling where the shot was given
- Hoarseness
- Sore, red or itchy eyes
- Cough
- Fever
- Aches
- Headache
- Itching
- Fatigue
- If these problems occur, they usually begin soon after the shot and last 1 or 2 days.

Moderate problems following inactivated flu vaccine:

- Young children who get inactivated flu vaccine and pneumococcal vaccine (PCV13) at the same time may be at increased risk for seizures caused by fever. Ask your doctor for more information. Tell your doctor if a child who is getting flu vaccine has ever had a seizure.

Problems that could happen after any vaccine:

- Brief fainting spells can happen after any medical procedure, including vaccination. Sitting or lying down for about 15 minutes can

help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.

- Severe shoulder pain and reduced range of motion in the arm where a shot was given can happen, very rarely, after a vaccination.
- Severe allergic reactions from a vaccine are very rare, estimated at less than 1 in a million doses. If one were to occur, it would usually be within a few minutes to a few hours after the vaccination.

119. Hair an syndrome is consists of ?

a) Hyperandrogenism

b) Acanthosis nigricans

c) Insulin resistance

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above

- HAIR-AN syndrome consists of hyperandrogenism (HA), insulin resistance (IR), and acanthosis nigricans (AN).
- It is a subset of polycystic ovary syndrome

120. Renal tubuler acidosis with ABG value pH = 7.24 $P0_2$=80; $PaCO_2$= 36 Na = 131; HCO_3 = 14 C1= 90; BE = -13 Glucose = 135 above ABG picture suggest ?

a) Metabolic acidosis

b) Respiratory acidosis

c) Respiratory alkalosis

d) Metabolic alkalosis

Correct Answer - A
Ans. is 'a' i.e., Metabolic acidosis

- The given values have low pH, and low HCo_2- Indicate metabolic acidosis
- PCO_2 in lower normal range (normal value 35-45 mm/hg)

121. Grimace with APGAR score -

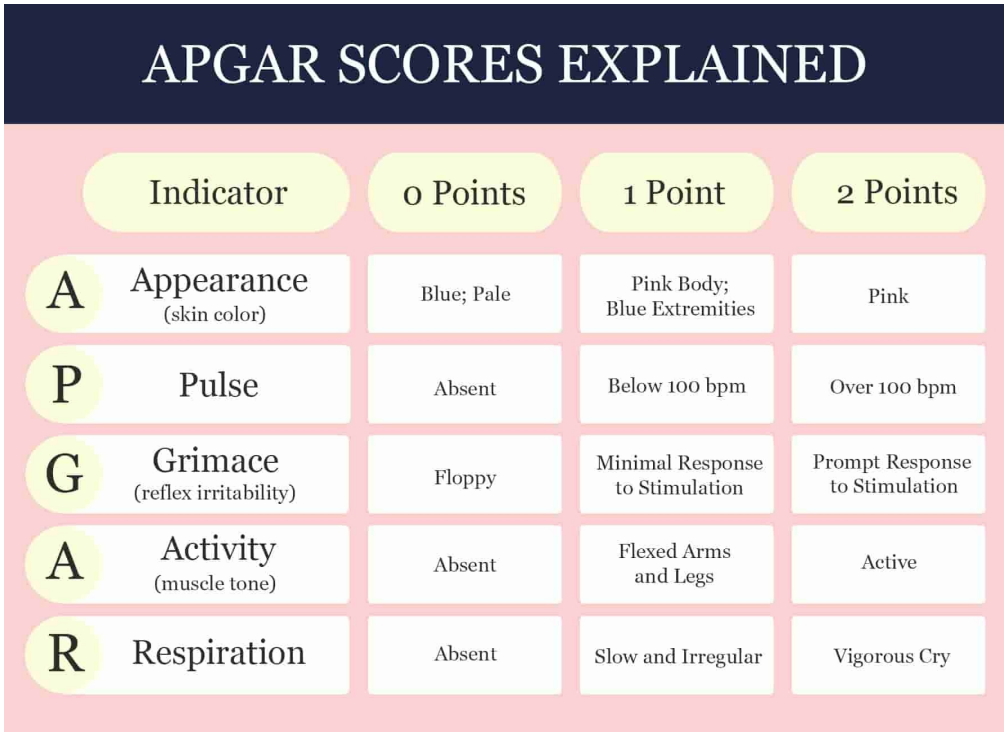
a) 0

b) 1

c) 2

d) 3

Correct Answer - B
Ans. is `b i.e., 1



122. PDA true is all except ?

a) More common in preterm baby

b) Left to right shunt

c) Acyanotic congenital heart disease

d) More common in term baby

Correct Answer - D
Ans. is 'd i.e., More common in term baby

- During fetal life, most of the pulmonary arterial blood is shunted through the ductus arteriosus into the aorta .
- Functional closure of the ductus normally occurs soon after birth, but if the ductus remains patent when pulmonary vascular resistance falls, aortic blood is shunted into the pulmonary artery.
- The aortic end of the ductus is just distal to the origin of the left subclavian artery, and the ductus enters the pulmonary artery at its bifurcation
- Female patients with PDA outnumber males 2 : 1.
- PDA is also associated with maternal rubella infection during early pregnancy.
- It is a common problem in premature infants, where it can cause severe hemodynamic derangements and several major sequelae

123. Most common presentation of wilm's tumor ?

a) Hematuria

b) Asymptomatic abdominal mass

c) Abdominal pain

d) Headache

Correct Answer - B
Ans. is `b' i.e., Asymptomatic abdominal mass
Wilm's tumor (Nephroblastoma)

- Most common malignant tumor of kidney.
- 80% of tumor present below 5 year of age.

Presention :?

- Asymptomatic abdominal mass (M.C.).
- Haematuria (10-25%).
- Hypertension (25%).
- Abdominal pain (30%).
- Fever (20%).

124. Confirmation of male intersex by?

a) USG abdomen

b) Genetic testing

c) Hormonal study

d) All of above

Correct Answer - B
Ans. is 'b' i.e., Genetic testing
Intersex :(DSD)

- Discrepancy between morphology of gonads and that of extemal genitalia
- Now Disorder of Sex development (DSD) is preferred instead of intersex
- Distinctly not defined as male or female
- Intersex trait not always manitest at both
- Some as not aware of intersex and it is confirned by Genetic testing
- Most common is virilisation of female 46 XX DSD.
- 46 XX DSD -
- Phenotype is xx & gonads are ovary but external genitalia is virilised. (due to lack of antimullerian hormone (AMH))
- Most common is congenital adrenal hyper plasia (CAH)
- Most commonly 21 a hydroxylase & 11[3 - Hydroxylase deficiency.

125. Post term baby with tachypnea - commonest cause?

a) Transient tachypnea of newborn

b) Meconium aspiration syndrome

c) Hyaline membrane disease

d) Infection

Correct Answer - B

Ans. is 'b' i.e., meconium aspiration syndrome

Transient Tachypnea of the Newborn

- *Tr*ansient tachypnea of the newborn is the most common cause of neonatal respiratory distress, constituting more than 40 percent of cases.1
- A benign condition, it occurs when residual pulmonary fluid remains in fetal lung tissue after delivery o Respiratory Distress Syndrome
- Respiratory distress syndrome of the newborn, also called hyaline membrane disease, is the most common cause of respiratory distress in premature infants
- Immature type II alveolar cells produce less surfactant, causing an increase in alveolar surface tension and a decrease in compliant
- Meconium Aspiration Syndrome
- Meconium-stained amniotic fluid occurs in approximately 15 percent of deliveries, causing meconium aspiration syndrome in the infant in 10 to 15 percent of those cases, typically in term and post-term infants

Infection

- Bacterial infection is another possible cause of neonatal respiratory distress.
- Common pathogens include group B streptococci (GBS),

Staphylococcus aureus, Streptococcus pneumoniae, and gram-negative enteric rods.

- Pneumonia and sepsis have various manifestations, including the typical signs of distress as well as temperature instability

126. Major criteria for rheumatic fever - AJE

a) Carditis

b) Arthralgia

c) Erythema marginatum

d) Subcutaneous nodule

Correct Answer - B
Ans. is 'b' i.e., Arthralgia
Jone's criteria
Major criteria are : *Carditis, arthritis, subcutaneous natule, chorea, and erythema marginatum*

127. 0.9% NaCl contains True as?

a) 0.9 gm of Nacl in 1000 ml of fluid

b) 77 meg of sodium is 1000 ml of fluid

c) 154 meg of chloride in 1000 ml of fluid

d) 30 meg of sodium in 1000 ml of fluid.

Correct Answer - C
Ans. is 'c' i.e., 154 meq of chloride in 1000 ml of fluid
Nomal saline (Isotonic saline)

- Contains - 9 gms of Nacl in 1000 ml of fluid
154 meq/sodium in 1000 ml of fluid
154 meq Chloride in 1000 ml of fluid

128. Handedness develops by age of?

a) 2 years

b) 3 years

c) 4 years

d) 5 years

Correct Answer - B
Ans. is 'b' i.e., 3 year

- Handedness is usually established by the 3rd yr. Frustration may result from attempts to change children's hand preference. Variations in fine motor development reflect both individual proclivities and different opportunities for learning. Children who are seldom allowed to use crayons, for example, develop a mature pencil grasp later

129. Drug used in neonatal resuscitation

a) Adrenaline

b) Soda bi carbonate

c) Naloxone

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Drug used during neonatal resuscitation

- Epinephrine./Adrenalin
- NS or RL
- Naloxone
- Sodium-by-carbonate

130. Delayed puberty in female?

a) No breast budding in 10 years

b) Menarche > 16 year

c) menarche > 1 year of brean budding

d) FSH

Correct Answer - B
Ans. is 'b' i.e., Menarche > 16 year
Delayed Puberty

- More common in boy than girl
- Most common cause in constitutional delay

Girls-Delayed puberty is defined as

- Lack of secondary sexual character by age of 17 years
- Absence of menarche by age of 16 year
- 5 year after pubertal onset.
- Boys-Lack of pubertal changes by the age of 14 years.

131. Reye syndrome false is?

a) Associated with salicylate ingestion

b) Hepatomegaly

c) Jaundice

d) Hypoglycemia

Correct Answer - C
Ans. is 'c' i.e., Jaundice
Reve syndrome

- Detrimental effects to many organs, especially the brain and liver, as well as causing low blood sugar and increase ammonia level.
- Secondary Mitochondria hepatopathy
- H/o viral injection (Influenza, varicella) & salicylate interactions.
- Higher mortality rate.
- The disease causes fatty liver with minimal inflammation and cerebral edema (swelling of the brain).
- Jaundice is not usually present. With raised enzyme with normal bilirubin.
- Children of ages 4 to 12 are most commonly afflicted.
- Early diagnosis is vital; although most children recover with supportive therapy, it may lead to severe brain injury and death

132. 3 year old child come in ER with H/o vomiting, loose watey motion for 3 days. on examination, child was drowsy, sunken eye. Hypothermia and skin pinch take time to revert back, diagnosis?

a) No dehydration

b) Mild dehydration

c) Some dehydration

d) Severe dehydration

Correct Answer - D
Ans. is 'd' i.e., Severe dehydration

- A child with severe dehydration will have at least two of the following four signs : sensorium is abnormally sleepy or lethargic, sunken eyes, drinking poorly or not at all, and a very slow skin pinch.
- A child with some signs of dehydration will have two of the following : restlessness or irritability, sunken eyes, drinking eagerly or slow skin pinch.
- A child with either one or none of these signs is classified as having no signs of dehydration.

133. In duschene the knee jerk ?

a) Exaggerrated

b) Decrease

c) May be normal initially lateron increase

d) May be normal initially lateron decrease

Correct Answer - D
Ans. is 'd' i.e., May be normal initially lateron decrease
Duchenne and Becker's muscular dystrophy.
X-like recessive So expression of gene is essentially confirmed in males.

- Females are affected only if X-chromosome carrying the normal allele is lost or inactivated
- Becker is milder form with late onset and slow progression.
- In duchenni, onset is early with deloyed misection.
- Pseudohypertrophy of calf muscle, glutei, deltiod,
- Gower sign may positive at age of 3 year.
- Cardiac involvement started at 10 year of age.
  Deep tendon reflexes remain normal or are decreased in patients with DMD.
  Ankle jerks are relatively preserved until the terminal stages, while the knee jerk reflex is less brisk than the ankles by age six, but is eventually lost.
- Histopathology shows diffuse degeneration & regeneration of muscle fibre.
- Serum CPX are markedly high.

134. Intra uterine hydronephrosis of 32-34 weeks-management?

a) Intrauterine drainage

b) Wait until 3 weeks

c) Immediate delivery

d) Require serial USG and other associated anomalies

Correct Answer - D

Ans. is `d' i.e., Require serial USG and other associated anomalies

- Antenatal hydronephrosis (ANH) is transient and resolves by the third trimester in almost one-half cases.
- The presence of oligohydramnios and additional renal or extrarenal anomalies suggests significant pathology. o All patients with ANH should undergo postnatal ultrasonography
- The intensity of subsequent evaluation depends on anteroposterior diameter (APD) of the renal pelvis and/or Society for Fetal Urology (SFU) grading.
- Patients with postnatal APD exceeding 10 mm and/or SFU grade 3-4 should be screened for upper or lower urinary tract obstruction and vesicoureteric reflux.
- Surgery is considered in patients with increasing renal pelvic APD and/or an obstructed renogram with differential renal function <35-40% or its subsequent decline.

135. Child knows his/her sex by age of?

a) 2 year

b) 3 year

c) 4 year

d) 5 year

Correct Answer - B
Ans. is 'b' i.e., 3 year
Rides tricycle
Stands momentarily on one foot.
Draws a circle
Can dress or undress himself completely
Builds tower of 10 cubes
Knows his age and sex.
Repeat a sentence of 6 syllables
Has a vocabulary of 250 words.
Counts 3 objects correctly.
Can withhold and postpone bowel movement.

136. True about SLE is?

a) Autoimmune disease

b) Childhood SLE had poor prognosis than adult SLE

c) Presence of ANA

d) All are true

Correct Answer - D
Ans. is 'd' i.e., All are true
SLE (sytemic lupus Erythematosus)

- Autoimmune disorder
- Inflammation of blood vessel
- Childhood SLE had poor pnognosis than adult SLE

Hall mark of SLE is presence of antinuclean antibody (ANA)

- More common in female.
- Malar rash in pathognomic of SLE
- Non - erosive arthritis
- Nephritis
- Encephalopathy
- Pleuritis / Pericarditis
- Cytopenia

137. Case of hemorrhagic disease of newborn bleed on 2nd day?

a) 2, 7, 9, 10

b) 3, 7, 9, 10

c) 2, 8, 9, 10

d) 2, 5, 9, 10

Correct Answer - A
Ans. is 'a' i.e., 2, 7, 9, 10

- Hemorrhagic disease of newborn is due to deficiency of Vitamin K dependent factors —> II, VII, IX and X.

138. 8 year old child with hematuria in 5 days after throat infection?

a) Post streptococcal nephropathy

b) Ig A nephropathy

c) Nephrotic syndrome

d) can be a or b

Correct Answer - B
Ans. is 'b'i.e., Ig A Nephnopathy
IgA nephropathy

- Predominant deposition of IgA in glomeruli.
- RECURRENT episode of gross rematuria that also precipitation by URTI in last 2-5 days.

PSGN

- Acute GN following infection by group A - -hemolytic streptococci.
- Common in school age children. o Streptococcal infection usually of throat (4 or 12 strain) or skin (strain 49) by 1-4 week prior to AGN.
- Edema, oliguria, hypertension, AR*F, hematurea of abrupt onset.*

139. Hemophilia X-linked?

a) Hemophilia A

b) Hemophilia B

c) Hemophilia C

d) Both A & B

Correct Answer - D
Ans. is 'D' i.e., Both a & b

- Hemophilia A (also known as classic hemophilia or factor VIII deficiency) and hemophilia B (also known as Christmas disease or factor IX deficiency) are inherited in an X-linked recessive pattern.
- Haemophilia C is caused by a deficiency of coagulation factor XI and is distinguished from haemophilia A and B by the fact it does not lead to bleeding into the joints. Furthermore, it has autosomal recessive inheritance

140. Kwashiorkor not true is?

a) Apathy

b) Flaky paint dermatosis

c) Increased transaminase

d) Voracious appetit

Correct Answer - D
Ans. is 'd' i.e., Voracious appetite

- There is decreased appetite in kwasiorkor (not varacious appetite).
Kwashiorkar
- Kwashiorkar represents the uncompensated phase of PEM.
It is characterized by classical 'triad' of edema (Due to hypoalbuminemia), markedly retarded growth, and psychomotor (mental) changes

141. Most common cardiac defect in Turner syndrome

a) Coartaction of aorta

b) VSD

c) ASD

d) TOF

Correct Answer - A
Ans. is 'a' i.e., Coartaction of aorta
Disorders Associated with Turner Syndrome

- Short stature
- Congenital lymphedema
- Horseshoe kidney
- Patella dislocation
- Increased carrying angle of elbow
- Madelung deformity (chondrodysplasia of distal radial epiphysis)
- Congenital hip dislocation
- Scoliosis
- Widespread nipples
- Shield chest
- Redundant nuchal skin (in utero cystic hygroma)
- Low posterior hairline
- Coarctation of aorta
- Bicuspid aortic valve
- Cardiac conduction abnormalities
- Hypoplastic left heart syndrome
- Gonadal dysgenesis (infertility, primary amenorrhea)
- Gonadoblastoma (if Y chromosome material present)
- Learning disabilities (nonverbal perceptual motor and visuospatial

skills) [in 70%]
- Developmental delay (in 10%)
- Social awkwardness
- Hypothyroidism (acquired in 15-30%)
- Type 2 diabetes mellitus (insulin resistance)
- Strabismus
- Cataract
- Red-green colorblindness (as in males)
- Recurrent otitis media
- Sensorineural hearing loss
- Inflammatory bowel disease
- Celiac disease

142. In HSP gross hematurea is seen in what % of children?

a) 5 - 10%

b) 10 - 20%

c) 20 - 30%

d) 30 - 40%

Correct Answer - C
Ans. is 'c' i.e., 20 - 30%
Henoch-schonlein purpura (HSP)

- Small vessel vasculitis
- Purpuric rash
- Arthritis
- Abdominal pain
- Glomerulonephritis
- Gross hematuria is seen in 20-30% of cases

143. Child has lesion on buttocks since 2 year spreading peripherally with central scarring non symptomatic diagnosis?

a) Erythema annular cetrifugam

b) Erythema migrains

c) Erythema marginatum

d) Erythema Gyratum

Correct Answer - A

Ans. is 'a' i.e., Erythema annulase cetrifugam

- Erythema annulare centrifugum : an asymptomatic or pruritic eruption of variable duration. The eruption may be associated with an underlying disease (eg, infection, malignancy, sarcoidosis, other systemic illness)
- The eruption begins as erythematous papules that spread peripherally while clearing centrally. These lesions enlarge at a rate of approximately 2-5 mm/d to produce annular, arcuate, figurate, circinate, or polycyclic plaques
- Lesions demonstrate a predilection for the thighs and the legs, but they may occur on the upper extremities, the trunk, or the face. The palms and the soles are spared.
- Erythema migrans: These lesions are typically less numerous, less circinate in configuration, and often accompanied by a history of a tick bite.
- Erythema gyratum repens: EAC can be distinguished from this condition by its slower rate of spread and by its less bizarre configuration. Also, erythema gyratum repens is almost always associated with an underlying malignancy.

- Erythema marginatum rheumaticum: This is a nonscaling gyrate erythema that by definition is found in association with rheumatic fever (10-18% of patients with rheumatic fever).

144. Infant has fever, one episode of febrile convulsions admitted for observation, fever than subsided and followed by rash on abdomen & chest, maculopapular erythematous-what is the cause?

a) Chickenpox

b) Measles

c) Typhoid

d) Dengue

Correct Answer - A

Ans. is 'a' i.e., Chickenpox

- In this question, infant had develop rash on first day offever & distribution of rash is in favour of chickenpox, or varicella.
- Mnemonic for Day of appearance of rash in a febrile patient is **Very Sick Person Must Take Double Tablets**
- Very - Varicella (day 1)
- Sick - Scarlet fever (day 2)
- Person - Pox-small pox (day 3)
- Must - Measles (day 4)
- Take - Typhus (day 5)
- Double - Dengue (day 6)
- Tablets - Typhoid (day 7)

Chicken pox (Varicella):

- Caused by virus
- Child develop fever with rash
- Rash are macular, maculo-papular, vesicular (pleomorphic)

- Distribution is usually centripetal
- Complication include - more seen in immunocompromised child.

a. Mild thrombocytopenia
b. Hematurea
c. GI Bledding
d. Encephalitis
e. Pneumonia

145. 7 year old boy is ill and has fever. what is the caloric requirement?

a) 1200 kcal/d

b) 1500 kcal/d

c) 1900 kcal/d

d) 2200 kcal/d

Correct Answer - C
Ans. is 'c' i.e., 1900 kcal/day
Children
6 year 7 -> 1690
9 year -> 1950

146. Boy power school preference no spoken at school, normal speech at other place, IQ assessment normal diagnosis is?

a) Selective mutism

b) ADHD

c) Autism

d) Dyslexia

Correct Answer - A
Ans. is 'a' i.e., Selective mutism

- Autism typically diagnosed before 36 month of age.
- Autism is a neurodevelopmental disorder of unknown etiology, but with a strong genetic basis.
- It develops and is typically diagnosed before 36 mo of age.
- It is characterized by a behavioral phenotype that includes qualitative impairment in the areas of language development or communication skills, social interactions and reciprocity, and imagination and play.
- Selective mutism is defined as a failure to speak in specific social situations, despite speaking in other situations; it is typically a symptom of an underlying anxiety disorder. Children with selective mutism can speak normally in certain settings, such as within their home or when they are alone with their parents, but do not speak in other social settings, such as at school or at other places outside their home.
- Attention-deficit/hyperactivity disorder (ADHD) is the most common neurobehavioral disorder of childhood, 1 of the most prevalent chronic health conditions affecting school-aged children.

ADHD is characterized by:

- Inattention, including increased distractibility and difficulty sustaining attention.
- Poor impulse control and decreased self-inhibitory capacity
- Motor overactivity and motor restlessness.
- Dyslexia is characterized by an unexpected difficulty in reading in children and adults who otherwise possess the intelligence, motivation, and opportunities to learn considered necessary for accurate and fluent reading. Dyslexia is the most common and most comprehensively studied of the learning disabilities

147. Kangaroo mother care - False is?

a) Can also be given by father

b) Especially for low birth weight body

c) Effective thermal control

d) All of above

Correct Answer - A
Ans.:A.)Can also be given by father
KANGAROO MOTHER CARE
• KMC is care of preterm or LBW infants by placing skin-to-skin contact with the mother
• Position: vertical position between the mother's breasts and under her clothes
• The position is maintained until the infant no longer tolerates it (indicated by sweating or baby refuses to stay in KMC position)
• Kangaroo nutrition: exclusive breast feeding
• Continuous KMC is an alternative to minimal care in an incubator for infants who have already overcome major problems while adapting to extra-uterine life

- Able to suck and swallow properly
- Thriving in neutral thermal environment

• Intermittent KMC (atleast 1-2 hour) when continuous KMC is not possible
• All mothers can provide KMC irrespective of age, parity, education, culture or religion
• Initiated in a facility and continued at home
Clinical benefits
• Significantly increases milk production in mothers
• Increases exclusive breast feeding rates

• Reduces incidence of respiratory tract and nosocomial infection
• Better cardiorespiratory stability
• Fewer apneic episodes
• Improved weight gain
• Improves thermal protection in infants and there is a reduced chance of hypothermia
• Improves emotional bonding between the infant and mothers
• Reduces the duration of hospital stay
• Improved survival in low resource setting

Criteria for eligibility for KMC

• Indicated in all stable LBW babies
• Very sick babies needing special care should be cared for under radiant warmer initially. KMC should be started after the baby is hemodynamically stable
• Short KMC sessions can be initiated during recovery with ongoing medical treatment
• KMC can be provided while the baby is being fed via orogastric tube or on oxygen therapy
• BW > 1800g: generally stable at birth and KMC initiated soon after birth
• BW 1200 — 1799 g: many babies have significant neonatal problems. It might take a few days to start KMC
• BW < 1200g: it might take days to weeks before initiating KMC

When to stop KMC

• When the baby attains a weight of 2500g and a gestation of 37 weeks
• A baby who upon being put in kangaroo position, tends to wriggle out, pull limbs out or cries, is not in need of KMC any more

148. Child having long history of hemoglobin 5 gm% next step?

a) Blood transfusion

b) CBC,reti count with periphesal smear.

c) Start Iron

d) Hb elechophoresis

Correct Answer - B

Ans. is 'b' i.e., CBC,reti count with peripheral smear

- In above question, if child is stable, then no need to give blood transfusion.
- Before starting Iron, we have to rule out types of anemia as Iron is indicated only in nutritioral anemia.
- Hb ele ctrophoresis is indicated if there is featuer of hemolytic anemia (thalassemia) so over all our next step is complete hemogram with manual peripheral smear examination. (obtion b).

149. 3 year old child with normal height for age, abnormal weight for age and abnormal weight for height, what It is not be?

a) Acute malnutrition

b) Chronic Malnutrition

c) Acute on chronic

d) None of above

Correct Answer - B

Ans. is 'b' i.e., Chronic malnutrition

- For this purpose wasting and stunting are measured :-

i) Wasting (deficit in weight for height) 4 Acute malnutrition.

ii) Stunting (deficit in height for age) - Chronic malnutrition.

iii) Wasting and stunting - Acute on chronic malnutrition.

150. Hypergonadotropic hypogonadism is sean in all except?

a) Turner syndrome

b) Down syndrome

c) Klinefelter syndrome

d) Swyer's syndrome

Correct Answer - B
Ans. is 'b' i.e., Down syndrome
Hypergonadotropic hypogonadism

- Also K/a primary or peripheral hypogonadism.
- Characterised by hypogonadism due to an impaired response of the gonads to the gonadotropin, FSH and LH.
- In turn a lack of sex steroid production and elevated gonadotropin level.

Causes :

- Chromosomal abnormalitis
- Turner's syndrome
- Klinefelter syndrome
- Swyer's syndrome
- Enzyme defect
- 17 , hydroxylase
- 17, 20 lyase deficiency

151. Turner syndrome - karyotyping is?

a) 45, X0

b) 46 X0

c) 47 XXX

d) Trisomy 21

Correct Answer - A
Ans. is 'a' i.e., 45 XO

- *4*5X0
- Lymphadema of dorsum of hand *&* fat
- Loose skin fold at nape of neck
- Short stature
- Short Neck (with webbing of neck)
- Anomalies ear
- Broad shield like chest with widely spaced small nipple
- Renal anomalies (Horse-shoe, souble or cleft renal pelvis)
- Coart of aorta

152. Not a finding in potter syndrome?

a) Bilateral renal agenesis

b) Polyhydromnios

c) Pulmonary Hyperplasia

d) Flat chain

Correct Answer - B
Ans. is 'b' i.e., Poly hydromnios
Potter syndrome

- Bilateral renal agenesis is incompatible with extrauterine life and is termed Potter syndrome.
- Death occurs shortly after birth from pulmonary hypoplasia.
- The newborn has a characteristic facial appearance, termed Potter facies. The eyes are widely separated withepicanthic folds, the ears are low set, the nose is broad and compressed flat, the chin is receding, and there arelimb anomalies.
- Bilateral renal agenesis should be suspected when maternal ultrasonography demonstrates oligohydramnios,nonvisualization of the bladder, and absent kidneys.

153. Drug used for absence seizure?

a) Lamotrigine

b) Carbamazepine

c) Phenytoin

d) Vigabatrine

Correct Answer - A
Ans. is 'a' i.e., Lamotrigine

- *Drug of choice for absence seizures is Valproate (Previously it was ethosuxamide).* Other drugs used are lamotrigine and *clonazepam.*

154. Most common cause of acquired heart disease in children

a) Acute rheuamatic fever

b) Kawasaki

c) Takayasu

d) Diabetes

Correct Answer - A
Ans. is 'a' i.e., Acute Rheumatic fever
Acute rheumatic fever

- *M*ost common cause of acquired heart disease in children.
- Caused by group A f3 hemolytic streptococci
- Usually seen in school going children
- Jones criteria = very impotrant
- Mitral valve most common followed by aortic valve
- In acute phase - MR seen
- In RI-ID MS seen

155. Mildly elevated bilirubin, normal liver enzymes are seen in?

a) Malaria

b) Thalassemia

c) G-6 PD deficie

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above

- Mildly elevated bilirubin especially indirect and normal liver enzyme seen in hemolytic anemia.
- In above question all causes hemolytic anemia.

156. Single umblical artery is associated with?

a) NTD

b) Hydrops fetalis

c) Congenital heart disease

d) In utero death

Correct Answer - C

Ans. is `c'i.e., Congenital heart disease

- Approximately 30% of infants with a single umbilical artery have congenital abnormalities.
- Trisomy 18 is one of the more frequent abnormalities.
- The most common congenital anomalies in chromosomally normal fetuses and neonates were.
- Genitourinary (6.48%)
- Cardiovascular (6.25%)
- Musculoskeletal (5.44%).

157. Hypocalcemia in a child may be associated with

a) Digeorge syndrome

b) Hypo parathyroidism

c) Magnesium deficiency

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Causes of hypocakemia

- Hypo parathyroidism
- Digeorge syndrome
- PTH receptor defect (pseudo hypoparathyroidism)
- Magnesium dificiency
- Exogenous organic phosphate excess
- Vit D difeciency

158. Female hermaphrodite is?

a) Female sexual characterstic with testes

b) Male sexual charaterstic with ovary

c) XY

d) Female sexual characteristic with both testes & ovary

Correct Answer - B
Ans. is 'b' i.e., Male sexual characteristc with ovary
Female pseudo hermaphroditism

- Have internal genitalia female type
- Katy() type XX
- Masculinisation of external genitalia
- Most common - CAN

Congenital adrenal hyperplasia
M-C. 21 hydroxylase deficiency

- Other cause excess maternal androgen due to - o Maternal ovarian tumor.
- Maternal drug intake
- Treatment
- Hormonal therapy

159. Baby '0* positive, blood group, mother Rh negative, cord bilirubin 7 mg%, conjugated I now treatment is?

a) Nothing

b) Stop breast feeding for 48 hours

c) Continue breast feeding and phototherapy

d) Stop breast feed and prepare for exchange blood transfusion

Correct Answer - D

Ans. is 'd' i.e., Stop breast tad and prepare for exchange blood transfusion

· In hemolytic disease, immediate exchange transfusion indication :

a) Cord bilirubin is > 4.5 mg/dl and Hb < 11 gm%

b) Bilirubin rising > 1 mg/dl/hour despite phototherapy

c) Hb level 11-13 gm/dl and bilirubin rising more than 0.5 mg/dl/hour

d) Bilirubin is rising inspite of phototherapy

160. 3 days old newborn with unknown inborn error of metabolism, hyperammonemia in blood.

a) Maple syrup urine disease

b) Urea cycle enzyme dificiency

c) Organic acidurea

d) Phenyl ketonuria

Correct Answer - B

Ans. is 'b' i.e., Urea cycle enzyme deficiency

Urea cycle enzyme defect

- Catabolism of amino acid leads to free ammonia which is highly toxic
- Free ammonia is converted into urea by group of 5 enzyme
- Newborn is usually asymphomatic but leter on become symptomatic after giving protein
- Treatment is dietery protein restriction

MSUD (maple syrup urine disease)

- Defective decorboxglation of branch chain amino acid (leucine, Isoleuvine, valine)
- Autosomal recessine
- Smell of maple syrup in urine.

Phenyl ketonuria

- Autosomal recessive
- Deficiency of phenylalanine hydroxylase.
- Defect in conversion of phenylalanine to tyrosine.
- This leads to increase level of phenylalanine.
- This increase phenlylalanine converted into phenylpyruvate and

phenyl acetate.

- This phenyl acetate gives mousy or musty odour in urine/body.

Other point to remember?

- Sweaty feat odour -Isovaleric academia
- In Alkaptanuria - Urine become darkish brown when exposed to air while purplish brown in porphyria.
- Smoky sweat - MSUD
- Mousy or Musty - Phenylketonuria
- Boiled cabbage - Tyrosinemia

161. 10 month old child can not perform?

a) Standing with support

b) Pincer group

c) Walking with suppor

d) Two words with meaning

Correct Answer - D
Ans. is 'd' i.e., Two words with meaning
o A child can transfer the objects from one hand to another by 5-7 months.
o A child can build a tower of 6 cubes by 21 months
o A child can pull himself up by the age of 10 months.
o A child makes a simple sentence first time by the age of 2 years.
o Pincer grasp develops by 9 months.

162. Child comes with blood sugar 32 mg/dl with convulsions Treatment is?

a) 5% dextrose 2 ml/kg

b) 10% dextrose 2 ml/kg bolus

c) 10% dextrose 4 ml/kg

d) 5% Dextrose 4 ml/kg

Correct Answer - C
Ans. is 'c' i.e., 10% Dextrose 4 ml/kg

- *Symtomatic Hypoglycemia (<40mg/d1) should be managed with 10% IV Dextrose.*
- In seizures, dose of 10% dextrose is 4 ml/kg.

163. Omalizumab True statement is?

a) Anti-IgE

b) Used as add on therapy in moderate to severe asthma prophylaxis

c) Givn subcutaneously

d) All o above

Correct Answer - D
Ans. is 'd' i.e., All of above

- Anti-IgE (Omalizumab).
- Omalizumab is a humanized monoclonal antibody that binds IgE, thereby preventing its binding to the high-affinity IgE receptor and blocking IgE-mediated allergic responses and inflammation.
- approved for patients >12 yr old with moderate to severe asthma,
- It is given every 2-4 wk subcutaneously based on body weight and serum IgE levels.
- Its clinical efficacy as an "add-on" therapy for patients with moderate to severe allergic asthma It is generally well tolerated, although local injection site reactions can occur

164. Pigmentation and growth retardation is seen in?

a) Zinc deficiency

b) Riboflavin deficiency

c) Niacin deficiency

d) Vit A deficiency

Correct Answer - A
Ans. is 'a' i.e., Zinc dificiency

Dwarfism (growth retardation)
Diarrhea
Dermatitis
Hepatosplenomegaly
Iron deficiency anemia
Acrodermatitis enteropathica
Hyperpigmentation

165. Not included in modified Jones criteria?

a) Polyarthalgia

b) Carditis

c) Chorea

d) Erythema marginatum

Correct Answer - A
Ans. is 'a' i.e., Polyarthalgia

- All the given options are included in modified Jones criteria. Carditis, *chorea and erythema marginatum are major criteria.* Only polyarthralgia (arthralgia) is minor criterian.

166. True about foremilk & hind milk?

a) Foremilk has fat

b) Hind milk relieve hunger

c) Fore milk relieve hunger

d) Hind milk is rich in protein

Correct Answer - B
Ans. is 'b' i.e., Hind milk relive hunger
The foremilk (the milk "in front"); is produced at the beginning of each feeding. It contains water, vitamins, and protein and relieve thurst.
The hindmilk ; is pushed out latter, it is heavier, richer in lipid and satisfy hunger.

167. 13 year old female having sudden onset high grade fever with delirium. CT. finding s/o involvement of limbic system & medial temporal lobe - Dx is

a) Subarachnoid hemorrhage

b) Herpes simplex encephalitis

c) Pyomeningitis

d) Cerebral malaria

Correct Answer - B
Ans. is 'b' i.e., Herpes simplex encephalitis
Herpes simplex encephalitis

- Acute necrotising infection involving frontal, temporal lobe & limbic system.
- Feature Non specific - fever, headache, nuchal rigidity. convulsion, altered sensorium.
- Confirmed by CSF examin & radio imaging.
- Treatment supportive and Acyclovir

168. Height of child acquire 100 cm in?

a) 2.5 year

b) 3.5 year

c) 4.5 year

d) 5.5 year

Correct Answer - C
Ans. is 'c' i.e., 4.5 year
1 Year- 75 cm
2 Year- 90 cm
4 1/2 Year- 100 cm

169. mental retardation can be proved if delayed milestones and slow or retarded growth seen upto which age (in year)?

a) 12

b) 16

c) 18

d) 20

Correct Answer - C
Ans. is 'c' i.e., 18 year
a) Significantly sub-average intellectual functioning:an IQ score of 70 *or below on an individually administered IQ test (for infants, a clinical judgment of significantly sub-average intellectual functioning).*

170. Most common organ involved in congenital Tb is?

a) Liver

b) Pancreas

c) Kidney

d) Lung

Correct Answer - A
Ans. is 'a' i.e., Liver
Congenital tuberculosis

- Although it is rare as mother having tuberculosis primarily present with infertility.
- Tuberculous bacilli sometimes pass throgh umblical vein and may develop focus in liver (hepatic complex).
- When neonate aspirate amniotic fluid containing bacilli then develop GI tuberculosis or lung infection.
- Neonate usually present as respiratory distress, hepatosplenomegaly lymphadenopathy.
- Overall liver is most commonly involved in congenital tuberculosis

171. Bivalent meningococcal vaccine is ?

a) A Y

b) A C

c) C y

d) A W-I35

Correct Answer - B
Ans. is 'b' i.e., A C
Two type of meningococcal vaccine develop

- Unconjugated polysaccharide vaccine.
- Conjugated group C vaccine.

Polysaccharide vaccines

- Internationally marketed meningococcal polysaccharide vaccines are o Bivalent (A and C),
- Trivalent (A, C and W-135)
- Tetravalent (A, C, Y and W-135).
- The vaccines are purified, heat-stable, lyophilized capsular polysaccharides from meningococci of the respective serogroups.
- A protective antibody response occurs within 10 days of vaccination.
- In schoolchildren and adults, one dose of these polysaccharide vaccines appears to provide protection for at least 3 years, but in children under 4 years of age the levels of specific antibodies decline rapidly after 2-3 years.

172. Apnea of prematurity ?

a) > 10 sec

b) > 15 sec

c) 20 sec

d) > 30 sec

Correct Answer - C
Ans. is 'c' i.e., 20 sec

- Apnea of prematurity defined as sudden stoppage of breathing that lasts for 20 sec or is associated with bradycardia or cyanosis.
- Apnea of prematurity should be differentiated from periodic breathing which is normal phenomenon is preterm neonate

173. Down syndrome - all are seen except -

a) t (14; 21)

b) t (11: 14)

c) Trisomy 21

d) t (15: 21)

Correct Answer - B
Ans. is 'b' i.e., t (11: 14)
In 95% of cases of Down syndrome-trisomy of 21:-

- Extra chromosome is of maternal in origin.
- I% have mosaic with some all have 46 chromosome.
- 4% have robertsonian translocation.
- t (13 : 21)
- t (14 : 21)
- t (15 : 21)
- Very rarely long arm of chromosome 21 is triplicate (Partial trisomy).

174. Bidextrous grip is seen at what age?

a) 4 months

b) 5 months

c) 6 months

d) 7 months

Correct Answer - A

Ans. A. 4 months

FINE MOTOR MILESTONES:

Age	Milestone
4 months	Bidextrous reach
6 months	Unidextrous reach
9 months	Immature pincer grasp
12months	Mature pincer grasp
15months	Imitates scribbling, tower of 2 blocks
18months	Scribbles, tower of 3 blocks
2 years	Tower of 6 blocks, vertical & circular stroke
3 years	Tower of 9 blocks, copies circle
4 years	Copies cross, bridge with blocks
5 years	Copies triangle

FINE MOTOR MILESTONES

- DR.AKIF A.B

175. Which vaccine to be given every year ?

a) Hepatitis A

b) Hepatitis B

c) Influenza

d) Chicken pox

Correct Answer - C

Ans. C. Influenza

Influenza (Flu): The flu vaccine is recommended every year for children 6 months and older:

- Kids younger than 9 who get the flu vaccine for the first time (or who have only had one dose before July 2017) will get it in two separate doses at least a month apart.
- Those younger than 9 who have had at least two doses of flu vaccine previously (in the same or different seasons) will only need one dose.
- Kids older than 9 only need one dose.
- The vaccine is given by injection with a needle (the flu shot) or by nasal spray. The flu shot is preferred for children of all ages because it has been shown to be safe and effective. Although the nasal spray was not used in recent years, a changed version of it is now recommended (for the 2018–2019 flu season) for kids who may otherwise not get a flu shot. The nasal spray is only for healthy people ages 2 through 49. People with weakened immune systems or some health conditions (such as asthma) and pregnant women should not get the nasal spray vaccine.

176. APGAR score 3 at 1 minute indicates:

a) Mildly depressed

b) Further resuscitation not needed

c) Severely depressed

d) Normal

Correct Answer - C
Ans. C. Severely depressed
APGAR CRITERIA:

	Score of 0	**Score of 1**	**Score of 2**	**Component of backronym**
Skin color	blue or pale all over	blue at extremities body pink (acrocyanosis)	no cyanosis body and extremities pink	Appearance
Pulse rate	absent	< 100 beats per minute	> 100 beats per minute	Pulse
Reflex irritability grimace	no response to stimulation	grimace on suction or aggressive stimulation	cry on stimulation	Grimace
Activity	none	some flexion	flexed arms and legs that resist extension	Activity
Respiratory effort	absent	weak, irregular, gasping	strong, robust cry	Respiration

INTERPRETATION:

The test is generally done at 1 and 5 minutes after birth and may be repeated later if the score is and remains low.

- Scores 7 and above are generally normal
- Score 4 to 6, fairly low
- Score:3 and below are generally regarded as critically low and cause for immediate resuscitative efforts.

177. Severe acute malnutrition as per WHO criteria-

a) Weight for age less than median plus – 2 SD

b) Weight for height less than median plus 2 SD

c) Weight for age less than median plus 3 SD

d) Weight for height less than median minus -3SD

Correct Answer - D

Ans. D.Weight for height less than median minus -3SD

- Severe acute malnutrition is defined by a very low weight for height (below -3z scores of the median WHO growth standards), by visible severe wasting, or by the presence of nutritional oedema.

World Health Organization (WHO) classification of nutritional status of infants and children:

Nutritional status	Age: birth to 5 years
Obese	Weight-for-length/height or BMI-for-age >3 standard deviations (SD) of the median
Overweight	Weight-for-length/height or BMI-for-age >2 SD and ≤3 SD of the median
Moderately underweight	Weight-for-age
Severely underweight	Weight-for-age
Moderate acute malnutrition	Weight-for-length/height or BMI-for-age ≤–2 SD and ≥–3 SD of the median, or mid-upper arm circumference ≥115 mm and
Severe acute malnutrition	Weight-for-length/height or BMI-for-age
Moderately stunted	

Moderately stunted (moderate chronic malnutrition)	Length/height-for-age ≤–2 SD and ≥–3 SD of the median
Severely stunted (severe chronic malnutrition)	Length/height-for-age
Moderately wasted	Weight-for-length/height ≤–2 SD and ≥–3 SD of the median
Severely wasted	Weight-for-length/height

178. Where to look for pre-ductal O2 saturation in PDA in a 3 minute born infant?

a) Fetal left Upper limb

b) Fetal left lower limb

c) Fetal right Upper limb

d) Fetal right lower limb

Correct Answer - C

Ans. C. Fetal right Upper limb

A simpler way to detect this right-to-left shunting is to use two pulse oximeters and measure **preductal** and postductal **SpO2.** In one study it was found that arterial saturation in the right arm **(preductal)** of at least 3%above the lower limb (postductal) is evidence of right-to-left ductal shunting.

179. True about Fragile X syndrome is-

a) Triple nucleotide CAG Sequence mutation

b) 10% Female carriers mentally retarded

c) Males have IQ 20-40

d) Gain of function mutation

Correct Answer - C

Ans. C. Males have IQ 20-40

Fragile X Syndrome

- Fragile X syndrome is associated with a fragile site on chromosome X (Xq 29.3)
- Triple nucleotide CGG Sequence mutation
- About 20% of women who are carriers for the fragile X premutation are affected by fragile X-related primary ovarian insufficiency.
- Individuals with FXS may present anywhere on a continuum from learning disabilities in the context of a normal intelligence quotient (IQ) to severe intellectual disability, with an average IQ of 40 in males who have complete silencing of the FMR1 gene.
- Fragile sites are regions of chromosomes that show a tendency to separation breakage or attenuation tinder particular growth conditions.

Inheritance

- Inheritance does not follow the usual Mendelian single gene patterns
- It is due to Allelic expansion.

Clinical Manifestations :

The main clinical manifestations are :

1. Mental Retardation

- In fact it is the commonest cause of mental retardation in males.

2. Macroorchidism.

3. Characteristic facial appearance with :

- Long face
- Large prominent ears
- Prominent Jaw

180. True about RETT Syndrome –

a) Macrocephaly

b) Cardiac arrhythmia

c) Seizures

d) Mental retardation

e) Autistic behaviour

Correct Answer - B:C:D:E

Ans. is'b'i.e., Cardiac arrhythmia,'c'i.e., Seizures,'d'i.e., Mental retardation &'e'i.e., Autistic behaviour

Rett's Syndrome

- This is the characteristic features, that they begin to loose their acquired skills, e.g., cognitive and head growth is normal during early period after which there is an arrest of growth.
- Acquired microcephaly
- Most children develop peculiar sighing respirations with intermittent periods of apnea that may be associated with cyanosis → Breath holding spells.
- Autistic behaviour → Impaired social interaction, language and communication.
- Generalized tonic-clonic convulsions occur in the majority.
- Feeding disorder and poor weight gain

181. True about Asperger syndrome:

a) More common in girl

b) Repetitive activity pattern

c) Subnormal intelligence is consistent feature

d) Severe language impairments is characteristic

e) All

Correct Answer - B

Ans. b. Repetitive activity pattern

Asperger syndrome:

- It is four times more likely to occur in males than in females and usually is first diagnosed in children between the ages of 2 and 6.
- The common characteristics include average or above average intelligence"
- There is no clinically significant general delay in spoken or receptive language or cognitive development. Self' help skills, adaptive behaviour, and curiosity about the environment during the first 3 years should be at a level consistent with normal intellectual development

182. Which of the following is present in a XY child but not in a XX child ?

a) Epoophoron

b) Paroophoron

c) Cowper's glands

d) Gartner's duct

Correct Answer - C
Answer- C. Cowper's glands
Bulbourethral gland (Cowper's gland) are found in males (XY) and are homologous to Bartholin's gland in females (XX).
[Ref : "Differentiation of the urogenital sinus in males". Embryology]

183. Therepeutic phlebotomy is not done in which of the following conditions ?

a) CML

b) Polycythemia vera

c) Hemochromatosis

d) Porphyria cutanea tarda

Correct Answer - A

Answer- A. CML

Indications for therepeutic phlebotomy-

- Polycythemia vera
- Hemochromatosis
- Secondary polycythemia
- Porphyria cutanea tarda

[Ref Current applications of therapeutic phlebotomy Tarek Bou Assi and Elizabeth Baz. Blood Transfus. 2014 Jan; 12(Suppl 1): s75-s83]

184. What is the IQ of a borderline deficiency?

a) 70 - 80

b) 50 - 69

c) 20 - 49

d) 0 - 20

Correct Answer - A
Answer- A. 70 - 80

IQ Range	**IQ Classification**
70 and Below	Extremely Low
71 -79	Borderline
80 -89	Low Average
90 -110	Average
111 -120	Bright
121 -130	Very Bright
131 and Over	Extremely Bright

185. Which is false about development milestones at 6 months of age?

a) Watching self in mirror

b) Sitting in tripod position

c) Pincer grasp

d) Monosyllable sounds

Correct Answer - A

Answer- A. Watching self in mirror

Milestones at 6 months of age

- In prone position lifts his head and greater part of his chest while supporting weight on extended arms.
- Produces monosyllable sounds like da, ma.
- Enjoys watching his own image in the mirror.
- Binocular vision develops (between 3-6 months).
- Purposeful movements in space (6-8 months).
- Sits in tripod position.

186. At what age child begins to use past and present tense

a) 1 Years

b) 2 Years

c) 18 Months

d) 30 Months

Correct Answer - D
Answer- D. 30 Months
Begin to identify objects from a group by their function and parts (ie. "which one has wheels", "which one can we eat")
Begin to use verbs with "ing" endings (i.e. "eating");
Early concepts such as "big, little" are identified;
Child will use "no, not" and answer "where" questions

187. Reduced osmolarity ORS does not contain which of the following ion -

a) Sodium

b) Potassium

c) Lactate

d) Citrate

Correct Answer - C

Answer- C. Lactate

Table 1: Composition of standard and reduced osmolarity ORS solutions

ORS →	**Standard**	**Reduced Osmolarity**
Contents↓	mEq/L	mEq/L
Glucose	111	75
Sodium	90	75
Choride	80	65
Potassium	20	20
Citrate	10	10
Osmoarity	311	245

30 mmol/l of bicarbonate instead of 10 mmol/l of citrate

188. Most common site for bone marrow aspiration in neonates is -

a) Anterior superior iliac crest

b) Posterior superior iliac crest

c) Sternum

d) Anteromedial tibia

Correct Answer - D
Answer- D. Anteromedial tibia
Preferred site for bone marrow aspiration in children - Posterior superior iliac crest.
In children < 18 month of age → Anteromedial tibia is preferred.

189. Milestones at 1 year of age are all except

a) Playing a simple ball game

b) Using 2 words that are meaningful

c) Spontaneous scribbling

d) Walking upstairs 1 step at a time

Correct Answer - D
Answer- D. Walking upstairs 1 step at a time
Tries to remove his coat and attempts to wear his socks or shoes without success.
Does mimicry.
Plays a simple ball game
Can use 2 words with meaning
Tries to build a Tower of 2 cubes
Tries to scribble spontaneously (between 12-24 months).

190. Floor of nasal cavity in children is made of -

a) Palatine bone and vomer

b) Sphenoid and ethmoid

c) Nasal bone and maxilla

d) Palatine bone and maxilla

Correct Answer - D
Answer- D. Palatine bone and maxilla
"The floor of the nasal cavities, which also form the roof of the mouth, is made up by the bones of the hard palate: the horizontal plate of the palatine bone posteriorly and the palatine process of the maxilla anteriorly."
[Ref Moore, Keith L; Dailey, Arthur F. (1999). Clinically Oriented Anatomy. Lippincott Williams er Wilkins.]

191. Stranger anxiety develops at

a) 3 months

b) 4 months

c) 7 months

d) 11 months

Correct Answer - C
Answer- C. 7 months
Milestones at month

- Holds the objects with crude grasp from palm (palmar grasp)
- Pivots
- Shows strangers anxiety
- Resists if a toy is pulled from his hand.
- Babbles

192. Consanguinous marriages increase risk of diseases -

a) Autosomal dominant disease

b) Autosomal recessive disease

c) X linked dominant diseases

d) Environmental diseases

Correct Answer - B
Answer- B. Autosomal recessive disease
Increases risk of - autosomal recessive disease
No change in risk of - autosomal dominant, X linked recessive (if neither parent affected)
Not Proven - complex late onset diseases like diabetes, schizophrenia, cardiovascular diseases

193. What is the average weight gain of the neonate per day

a) 5-10 g

b) 25-30 g

c) 50-60g

d) 100-150g

Correct Answer - B
Answer- B. 25-30 g
They gain weight at a rate of approximately 25 to 30 gm per day for the first 3 months of life. Thereafter they gain about 400 gm of weight every month for the remaining part of first year.
[Ref Ghai 7th/e p. 6]

194. Japanese encephalitis vaccine in routine schedule is given in how many doses -

a) Two doses 1 month apart with a booster after 1-2 years if needed

b) Single dose vaccine

c) Three doses 1 month apart followed by a booster if needed

d) Three doses with the second dose 1 month and 3' dose 6 months after the first dose

Correct Answer - A

Answer- A. Two doses 1 month apart with a booster after 1-2 years if needed

A Vero cell-derived, inactivated and alum-adjuvanted JE vaccine based on the SA 14-14-2 strain is used. The primary two doses are administered 4 weeks apart. A booster dose is recommended 1-2 years after the primary immunization

195. Newborn loses how much weight in first week?

a) 5 -10%

b) 1-2%

c) 10-20%

d) None

Correct Answer - A
Answer- A. 5 -10%
The average birth weight of neonates is about 3 Kg.
During first few days after birth, the newborn loses extracellular fluid equivalent to about 10% of the body weight.

196. In acute diarrhea following is used to decrease duration and severity -

a) Zn

b) Mg

c) Fe

d) Ca

Correct Answer - A
Answer- A. Zn
Recent studies suggest that administration of zinc along with new low osmolarity oral rehydration solutions / salts (ORS), can reduce the duration and severity of diarrheal episodes for up to three months.
[Ref Sachdev HP, Mittal NK, Yadav HS. Oral zinc supplementation in persistent diarrhea in infants. Ann Trop Paediatr. 1990;10:63-9.]

197. What is the cardiothoracic ratio in children is -

a) 30-35%

b) 40-45%

c) 50-55%

d) 60-65%

Correct Answer - C
Answer- C. 50-55%
" The cardiac silhouette occupies 50-55% of the chest width. Cardiomegaly is present when the cardiothoracic (CT) ratio is more than 55%."

198. Eyelid papules and hoarse cry in a child is suggestive of -

a) Congenital syphilis

b) Croup

c) Lipoid proteinosis

d) Acrodermatitis enterohepatica

Correct Answer - C
Answer- C. Lipoid proteinosis
Lipoid proteinosis also known as hyalinosis cutis et mucosa or Urbach-Weithe disease is a rare autosomal recessive disorder. characterized clinically by a myriad signs and symptoms that include hoarseness of the voice, beaded eyelid papules (Moniliform blepharosis), yellowish-white mucocutaneous infiltrates, and atrophic pock-like scars.

199. The fetal circulation changes to normal circulation at birth with

a) Closure of patent ductus arteriosus

b) Closure of ductus venosus

c) Increased activity of right Ventricle

d) Opening of fossa Ovalis

Correct Answer - A

Answer- A. Closure of patent ductus arteriosus

The increase in the concentration of oxygen in the blood leads to a decrease in prostaglandins, causing closure of the ductus arteriosus. These closures prevent blood from bypassing pulmonary circulation, and therefore allow the neonate's blood to become oxygenated in the newly operational lungs.

200. Most common cause of pneumonia in early onset sepsis a neonate is

a) Pnemococcus

b) S. Pyogens

c) E Coli

d) S. Aureus

Correct Answer - C
Answer- C. E Coli
Early onset sepsis

- It is caused by organisms prevalent in the genital tract or in the labor room and maternity operation theatre.
- In the west it is mostly caused by group B streptococcus and E.coli.
- In our country it is mostly due to gram negative organisms-E.coli, ldebsiella and enterobactor sp.

201. Test done to diagnose syphilis in newborn if mother is syphilitic -

a) Syphilis Capita M test

b) Detection of IgG

c) ZN staining

d) Fluoroescent antigen test

Correct Answer - A
Answer- A. Syphilis Capita M test
The tests to detect IgM are -
1. FTA-ABS (19S IgM FTA-ABS).
2. Syphilis Capita M test.

202. Inotropic support for severely dehydrated child with dopamine is done at what rate -

a) 0.1-0-5 microgram/kg/min

b) 1-5 microgram/kg/min

c) 1-5 mg/kg/min

d) 10-15 mg/kg/min

Correct Answer - B

Answer- B. 1-5 microgram/kg/min

In high doses, it acts on alpha-adrenergic receptors to increase systemic vascular resistance and raise blood pressure.

1-5 mcg/kg/min IV, increased to 5-20 mcg/kg/min; not to exceed 50 mcg/kg/min.

203. Neonatal resuscitation - which of the following drugs is used ?

a) Dopamine

b) Sodium Bicarbonate

c) Noradrenaline

d) Dobutamine

Correct Answer - B
Answer- B. Sodium Bicarbonate
Important drugs used for neonatal resuscitation are

- Epinephrine (adrenaline),
- Normal saline or ringer lactate,
- Naloxone and
- Soda bicarbonate.

204. Which of the following is correct about shock in child?

a) Tachycardia is a very sensitive indicator of depletion of intravascular volume

b) Mottling of extremities is seen in early shock

c) Confusion, stupor and coma are early signs

d) Respiratory rate is more sensitive than heart rate as an indicator of early shock

Correct Answer - A

Answer- A. Tachycardia is a very sensitive indicator of depletion of intravascular volume

Hypovolemic shock in children may have following stages : -

i) Early compensated

- Immediately after hypovolemia, body tries to maintain the BP to maintain adequate perfusion to vital organs through a compensatory mechanisms.
- An increase in heart rate (Tachycardia) is the earliest and most sensitive indicator for intravascular volume reduction

ii) Late uncompensated

- If shock state continues or the compensatory mechanisms are not enough to maintain the metabolic needs of the tissue, the shock, goes into uncompensated phase.

205. When does crying stop in cyanotic spells ?

a) Forced Expiration

b) Forced inspiration

c) Mid inspiration

d) Crying is continuous

Correct Answer - A

Answer- A. Forced Expiration

Cyanotic form (cyanotic spells)

- This is more common and is provoked in response to frustration and anger precipitated by upsetting or scolding infant/child.
- Cyanotic spells are due to central sympathetic overactivity.
- Clinical features include generalized cyanosis, apnea, forced expiration(crying stops) , opisthotonus, shrill cry and bradycardia. Seizures may occur due to cerebral hypoxia, but antiepileptics are not required.
- The only treatment is support and reassurance to parents

206. Abdominal pain in Henoch Schonlein purpura is due to -

a) Mucosal erosions and swelling of the GI mucosa

b) Gastrointestinal hemorrhage

c) Volvulus

d) Associated pancreatic inflammation

Correct Answer - A

Answer- A. Mucosal erosions and swelling of the GI mucosa

The second most frequent symptom of Henoch-SchOnlein purpura is abdominal pain, which occurs in up to 65 percent of cases. The most common complaint is colicky abdominal pain, which may be severe and associated with vomiting.

Endoscopic evaluation often shows mucosal erosions and swelling.

207. Treatment of choice for symptomatic neonatal hypoglycemia is

a) Dextrose normal saline

b) 5% dextrose

c) 10% dextrose

d) 25% dextrose

Correct Answer - C

Answer- C. 10% dextrose

Symptomatic or asymptomatic with blood glucose < 20 mg/dl

- Bolus 10% dextrose 2 ml/kg is given IV. Followed by continuous infusion of 6 mg/kg/minute. If normoglycemia is not achieved within 24 hours, glucocorticoids (prednisone or hydrocortisone) should be administered. For intractable hypoglycemia, glucagon, epinephrine or diazoxide can be given.
- In hypoglycemic seizures, dose of 10% dextrose is 4 ml/kg

208. ALL of the following are causes of neonatal bradycardia except

a) Hypoxia

b) Hypothermia

c) Head injury

d) BCG Vaccine

Correct Answer - D
Answer- D. BCG Vaccine
Neonatal bradycardia is defined as a decrease in heart by 30 bpm from baseline. Regarding neonatal resuscitation, bradycardia is concerning when the heart rate is less than 100 bpm.

209. Investigation of choice for CONFIRMING Henoch Schonlein purpura is -

a) Serum IgA levels

b) CRP levels

c) Renal Biopsy

d) DTPA

Correct Answer - C
Amswer= C. Renal Biopsy
Biopsy of the kidney may be performed both to establish the diagnosis or to assess the severity of already suspected kidney disease.

210. Which of the following is not a cause of neonatal anaemia?

a) Subgaleal Hemorrhage

b) Abruptio placentae

c) Diamond Blackfan syndeome

d) Wilson's Disease

Correct Answer - D
Answer- D. Wilson's Disease
Internal hemorrhage such as intracranial hemorrhage, subgaleal hemorrhage, cephalohematoma, adrenal hemorrhage, subcapsular hematoma of liver or ruptured viscus
Obstetrical causes: placental abruption, placenta previa, trauma to placenta or umbilical cord during delivery and rupture of anomalous placental vessels
Twin-twin transfusion
RBC destruction
RBC production

211. Autosomal recessive Polycystic kidneys - all are true except -

a) Seen in adults

b) Defective gene is PKHD1

c) Both kidneys show innumerable cysts

d) USG shows salt and pepper appearance

Correct Answer - A

Amswer- A. Seen in adults

Childhood polycystic kidney disease has autosomal recessive inheritance, therefore it is also known as autosomal recessive polycystic kidney disease.

Defective gene is the PKHD1 (Polycystic Kidney and Hepatic Disease1) which codes for a protein fibrocystin

Both kidneys are markedly enlarged and show innumerable cysts radiating from medulla the cortex.

MRI of kidney shows radially arranged fusiform dilated collecting ducts.

Prenatal USG shows a salt and pepper appearance of kidney.

212. 3 month old child with indrawing chest with respitratory rate 52/min classified as

a) SIRS

b) Respiratory distress

c) Tachypnoea

d) ARDS

Correct Answer - B
Answer- B. Respiratory distress
Tachypnea (fast breathing) : Fast breathing is defined as :-
1. Less than 2 months of age -› 60 breaths per minute
2. Child aged 2 months upto 12 months - 50 breaths per minute
3. Child aged 12 months upto 5 years -> 40breathsperminute

213. 45 day old infant presents with seizures. Examination reveals he is icteric, having bulging fontanelles and opisthotonic posture. Treatment is all except

a) Phototherapy

b) Exchange Transfusion

c) Phenobarbitone

d) Chlorpromazine

Correct Answer - D
Answer- D. Chlorpromazine
Chlorpromazine is not used in hyperbilirubinemia.
Treatment of hyperbilirubinemia includes
1. Pharmacological tharapy: Barbiturates (phenobarbitone), metallloporphyrins (Tin/Sn and Zinc/Zn)
2. Phototherapy
3. Exchange tronsfusion

214. Most common site for opening of TAPVC is -

a) Supracardiac

b) Cardiac

c) Infracardiac

d) Multiple

Correct Answer - A
Answer- A. Supracardiac
Type I (Supra Cardiac) TAPVC Most common 45%
Type II (Cardiac level) TAPVC - 25%
Type III (Infra Cardiac) TAPVC - 25%
Type IV (Multiple level) TAPVC 4 5%

215. Chronic lung disease in a infancy is defined as

a) Need for supplemental oxygen at 36 weeks after conception

b) Tachypnoea > 50 breaths/ min within 1 week of birth

c) Presence of bilateral infiltrates on chest Xray for 2 weeks

d) Reticulogranular pattern on chest Xray for 6 weeks

Correct Answer - A

Answer- A. Need for supplemental oxygen at 36 weeks after conception

Chronic lung disease of infancy was formerly called bronchopulmonary dysplasia.

Bronchopulmonary dysplasia is usually defined as a need for supplemental oxygen at 36 weeks after conception.

Bronchopulmonary dysplasia is usually defined as a need for supplemental oxygen at 36 weeks after conception. BPD is usually defined as a need for supplemental oxygen at 36 wk after conception.

BPD is a result of lung injury in infants requiring mechanical ventilation and supplemental oxygen.

216. Most common antigen involved in erythroblastosis fetalis is

a) C antigen in Rh group

b) D antigen in Rh group

c) E antigen in Rh group

d) Duffy antigen

Correct Answer - B
Answer- B. D antigen in Rh group
RBC antigens are capable of eliciting an antibody response, significant disease is associated primarily D antigen of Rh group and with ABO incompatibility

217. Eryhtematous blotchy rash is seen on the abdomen, trunk and face of a 3 day old child along with yellowish papules. However the child feels well. What is the management ?

a) Steroid and antibiotic lotion

b) No treatment

c) Steroid cream

d) Urgent intravenous antibiotics

Correct Answer - B

Answer- B. No treatment

Erythema toxicum neonatorum is a benign self-limited eruption occurring primarily in healthy newborns in the early neonatal period. It is characterized by Erythematous papules on trunk & face. They appear on 2nd & 3rd day and disappear spontaneously.

218. Further investigation is essential in a newborn with which condition?

a) Erythema toxicum

b) Vaginal bleed

c) Subconjunctival hemorrhage

d) Lens opacity

Correct Answer - D
Answer- D. Lens opacity
The problems are
1. Milia
2. Erythema toxicum
3. Stork bites
4. Peeling of skin
5. Subconjuctival hemorrhages
6. Breast engorgment
7. Epstein pearl
8. Pre-deciduous (natal teeth)
9. Vaginalbleeding
10. Vaginalmucoiddischarge
11. Hymenaltags
12. Physiologicalphymosis
13. Mongolian spots

219. A newborn presents with subconjunctival hemorrhage. The treatment is

a) No treatment

b) Antibiotic eye drops

c) Aspitation

d) Antibiotic and steroid drops

Correct Answer - A
Answer- A. No treatment
Subconjunctival hemorrhage in newborn is a normal phenomenom which disappears spontaneously.

220. What is the shape of caecum in the newborn ?

a) Ovoid

b) Trapezoid

c) Globular

d) Conical

Correct Answer - D
Answer- D. Conical
The shape of the caecum in an infant is conical with the appendix borne at the base of the cone.

221. Most common complication of Meckel's Diverticulum lit children

a) Abdominal pain

b) Peptic ulcers

c) Intestinal obstruction

d) Painless Rectal bleeding

Correct Answer - D
Answer- D. Painless Rectal bleeding
Most comnmon presentation of Meckel's Diverticulum in children is painless rectal Bleeding.
[Ref Alemayehu H, Hall M, Desai AA, St Peter SD, Snyder CL. Demographic disparities of children presenting with symptomatic Meckel's diverticulum in children's hospitals. Pediatric Surgery International. 2014 Jun 30. 6:649-653]

222. Which of the following is a X linked metabolic disorder?

a) Fabry's disease

b) Sandoff s disease

c) Pompe disease

d) Gaucher disease

Correct Answer - A
Answer- A. Fabry's disease
All lysosomal disorders are `autosomal recessive' except for Hunter's syndrome and Fabry's disease, which are X-linked recessive. Thus Hunter's syndrome and Fabry's disease affect only male.

223. Testes are not palpable in

a) SRY deletion

b) DAX 1 deletion

c) WNT- 4 gene mutation

d) RSPO-1 gene mutation

Correct Answer - A
Answer- A. SRY deletion
SRY gene is involved in development of male gonds (testes) from primitive (bipotential gonads).
DAX-1, WNT-4 and RSPO1 genes are involved in development of female gonads (ovary).

224. What is the maintainance fluid requirement in a 6 kg child ?

a) 240 ml/day

b) 600 ml/day

c) 300 ml/day

d) 1200 ml/day

Correct Answer - B

Answer- B. 600 ml/day

Fluid Requirements in: Infants and Children

HOLLIDAY - SEGAR METHOD

First 10 kgl	100ml/kg (4ml/kg/hr)	Na+3
10-20kg	1000ml + 50ml/kg for each Kg>10kg (40ml/hr+2ml/kg/hr(wt-10kg)	K+2
>20kg	1500ml + 20ml/kg for each Kg>20kg (60ml/hr + 1ml/kg/hr(wt-20 kg)	Cl-2

225. Kwashiorkor- Triad includes all except -

a) Psychomotor changes

b) Hypoglycemia

c) Edema

d) Growth retardation

Correct Answer - B
Answer- B. Hypoglycemia
Classical triad of kwashiorkor is markedly retarded growth, psychomotor (mental) changes and edema.

226. Child with 10 episodes of diarrhea in last 24 hours with sunken dry eyes, very slow skin pinch, and absent tears. Management is

a) ORS solution

b) breast feeding

c) Start 10% dextrose

d) Start Ringer's lactate

Correct Answer - D

Answer- D. Start Ringer's lactate

This is a case of severe dehydration.

Severe Dehydration

- Start IV fluids immediately
- Best IV fluid solution is Ringer lactate
- Normal saline can be used
- Dextrose is not effective

100 ml/kg is to be given as shown below:

AGE	FIRST	THEN
<12 months	30 nil/kg in I hours	70 ml/kg 5 hours
12 months to 5 yrs.	30 minutes	21/2 hrs

227. 1 year old child with multiple episodes of diarrhea presents with sunken dry eyes, depressed fontanelles, very slow skin pinch. The amount of fluid to be given in the first 6 hours is

a) 600 ml

b) 900 ml

c) 1200 ml

d) 1500 ml

Correct Answer - B
Answer- B. 900 ml
The approximate weight of a 1 year old child is 9kg (ie thrice the birth weight)
The description of dehydration given above is consistent with severe dehydration. T

228. A 6 year old child presents with an abdominal mass, fever, bone pain and IVC thrombosis , the diagnosis could be -

a) Wilm's tumour

b) Neuroblastoma

c) Langerhans cell Histiocytosis

d) Gastric lymphoma

Correct Answer - B
Amswer- B. Neuroblastoma
Renal vein invasion is more characteristic of neuroblastoma (it is rare in wilms tumor).

229. What is the first line treatment of a 4 year old child presenting with intussusception ?

a) Conservative management with wait and watch policy

b) Immediate attempt to reduction using barium edema

c) Surgical correction

d) Exploratory laparotomy with resection of the affected segment

Correct Answer - B

Answer- B. Immediate attempt to reduction using barium edema

Correction of intussusception by barium enema is the initial management of choice. If it fails, surgical correction is done.

230. Hutchison's Triad is seen in

a) Congenital Syphilis

b) Tertiary syphilis

c) Secondary Syphilis

d) Primary syphilis

Correct Answer - A
Answer- A. Congenital Syphilis
Hutchinson's triad is a common pattern of presentation of Congenital syphilis.
It consists of three phenomena :
1. Interstitial keratitis,
2. Hutchinson incisor,
3. Eighth nerve deafness

231. A 8 year old child presents with a mass in the lumbar region with abdominal pain with excruciating bone pain. Possible diagnosis is -

a) Neuroblastoma

b) Wilm's Tumour

c) Lymphoma

d) Angiomyolipoma

Correct Answer - A
Amswer- A. Neuroblastoma
This is a case of neuroblastoma that has metastatized
Metastasis is present in 60-70% at the time of diagnosis.
Commonest site of metastasis is skeletal system and neuroblastoma is the most common childhood malignancy metastasizes to bone.

232. Triad of normal pressure hydrocephalus includes all except -

a) Dementia

b) Gait disturbance

c) Urinary incontinence

d) Browache

Correct Answer - D
Answer- D. Browache
Triad of normal pressure hydrocephalus/Adam's triad/Hakim's triad

- Dementia
- Gait disturbance
- Urinary incontinece (wet, wacky and wobbly)

233. True about cephalhematoma is -

a) It is hemorrhage between the skull and periosteum

b) It is hemorrhage within the subcutaneous tissue around the skull

c) It is type of subdural hemorrhage

d) It is extraperiosteal bleeding in the skull

Correct Answer - A
Amswer- A. It is hemorrhage between the skull and periosteum
Cephalhematoma is subperiosteal bleeding, i.e. between skull bone and periosteum.

234. Medulloblatoma arises exclusively from the cells of

a) Immature embryonal cells

b) Ependymal cells

c) Neurons

d) Spindle shaped cells

Correct Answer - A
Answer- A. Immature embryonal cells
Medulloblastoma is the most common PNET (primitive neuroectodermal tumor) located in posterior cranial fossa.
[Ref Hinz, Chris; Hesser, Deneen. Focusing On Brain Tumors: Medulloblastoma. American Brain Tumor Association]

235. Which of the following is not true about encephalocoele?

a) It is a neural tube defect

b) Common in the frontal region

c) Can be associated with hydrocephalus

d) It is protrusion of neural tissue through a defect

Correct Answer - A
Answer- A. It is a neural tube defect
Perinatal asphyxia, more appropriately known as hypoxic-ischemic encephalopathy (HIE), is characterized by clinical and laboratory evidence of acute or subacute brain injury due to asphyxia. The primary causes of this condition are systemic hypoxemia and/or reduced cerebral blood flow (CBF)

236. Most common conotruncal anomaly

a) TGA

b) Tetralogy of fallot

c) Truncus arteriosus

d) Double oulet right ventricle

Correct Answer - A
Answer- A. TGA
Conotruncal defects are abnormalities of outflow tract septation or ectomesenchymal tissue migration abnormalities.
Most common conotructal defect is transposition of great arteries (TGA).

237. Meconium can passed upto → days in healthy bady -

a) 1

b) 3

c) 5

d) 7

Correct Answer - B
Answer- B. 3
Meconium is passed within → 24 hours of birth.
Meconium stools are passed → upto 3 days.
Transition stools are passed → zith & 5th days.
Regular milk stools are passed → After 5 days.

238. Fallot physiology includes all except

a) TOF

b) Eisenmenger complex

c) TGA

d) Tricuspid atresia

Correct Answer - B
Answer- B. Eisenmenger complex
These includes
1. TOF
2. Single ventricle with PS
3. TGA with VSD & PS
4. Corrected TGA with VSD & PS
5. TA
6. Double outlet right ventricle with PS

239. Pulmonary plethora is seen with - all except

a) TGA

b) Hypoplastic left heart syndrome

c) Ebstein anomalis

d) Double outlet right ventricle

Correct Answer - C
Answer- C. Ebstein anomalis
Pulmonary oligamia
TOF
TA
Ebstein's anomaly
Pulmonary atresia

240. Child with rash- wrong is

a) Typhus - day 5

b) Varicella - day 1

c) Typhoid - day 5

d) Measles - day 4

Correct Answer - C
Answer- C. Typhoid - day 5
Very Sick Person Must Take Double Tablets

- Very Varicella (day 1)
- Sick Scarlet fever (day 2)
- Person Pox-small pox (day 3)
- Must Measles (day 4)
- Take Typhus (day 5)
- Double Dengue (day 6)
- Tablets Typhoid (day 7)

241. What is recurrence of febrile seizure -

a) 10-20%

b) 20-30%

c) 30-50%

d) 50-70%

Correct Answer - C
Answer- C. 30-50%
Recurrent febrile seizures occur in 30-50% of cases.
More than 90% of febrile seizures are generalized.
Acute respiratory illness are most commonly associated with febrile seizures.

242. In neonate, intra muscular injection given at -

a) Deltoid

b) Gluteal

c) Thigh

d) Abdomen

Correct Answer - C
Answer- C. Thigh
Anterolateral aspect of thigh because of lack of important blood vessel & nerve is preferred site upto 12 month of age.

243. Sitting in Tripod position at which month ?

a) 5 months

b) 6 months

c) 8 months

d) 9 months

Correct Answer - B
Answer- B. 6 months
6 Month → Sit with support, sits in tripod position
8 Month → Sit without support
9 Month → Stand with support
12 Month → Stand without support Walk with support
15 Month → Walk alone, creep upstair

244. Weight of newborn quadruplets by -

a) 9 months

b) 12 months

c) 2 year

d) 3 years

Correct Answer - C
Answer- C. 2 year
Triple- 1 yr
Four times- 2 yrs
Five times- 3 yrs

245. From 6 weeks to 12 weeks... Infant weight increases at rate of -

a) 30 g/d

b) 40 g/d

c) 50 g/d

d) 60 g/d

Correct Answer - A
Answer- A. 30 g/d
Average weight of New born baby is 3 kg.
Newborn loses extracellular fluid about 10% of body weight and start gaining weight and become equal to birth weight at day 10 of life.
Subsequently, they gain weight at a rate of approximately 25 to 30 gm per day for the first 3 month of life.

246. Arm span and height become same at what age (year) -

a) 9

b) 11

c) 13

d) 15

Correct Answer - B
Answer- B. 11
In under-5 children , arm span is 1 to 2 cm smaller than body length.
During 10-12 years of age , arm span = height.
In adults arm span is more in adults by 2 cm.
Abnormally large arm span is seen in patients with : (1) Arachnodactyly (Marfan syndrome) (2) Eunuchoidism (3) Klinefelter's Syndrome (4) Coarctation of aorta.

247. In protein deficiency all are seen except -

a) Flaky paint like skin

b) Glossitis

c) Nail change

d) Cherry like skin

Correct Answer - D
Answer- D. Cherry like skin
redness on the skin, brittle nails, thin hair
Glossitis
Risk of infections
Fatty liver
Protein deficiency may leave its mark on the skin, hair and nails.

248. In a child having diarrhoea with perianal moist crust. The diagnosis is -

a) Acrodermatitis enteropathica

b) Riboflavin dificiency

c) Pellagra

d) None of above

Correct Answer - A
Answer- A' Acrodermatitis enteropathica
Acrodermatitis enteropathica is a rare autosomal recessive disorder caused by an inability to absorb sufficient Zinc from the diet.
Associated manifestations :- Chronic diarrhoea, stomatitis, glossitis, Paronychia, Nail dystrophy, Growth retardation, irritability, delayed wound healing, Bacterial & candidal infection.

249. Vitamin B6 is used in treatment of -

a) Homocystinuria

b) Xanthourenic aciduria

c) Cystathionuria

d) All of above

Correct Answer - D
Answer- D. All of above
Vit B6 dependent convulsion.
Vit B6 responsive anemia.
Xanthurenic acidmia
Cystathioninuria
Homocystinuria

250. Prostaglandin analogue used in PDA is -

a) Anaprastone

b) Misoprost

c) Danaprostone

d) PGE-2

Correct Answer - B
Answer- B. Misoprost
Prostaglandin inhibitor such as indomethacin and special form of ibuprofen are used for duct closure in preterm.
PGE-1 used to keep open duct are Alprostadil or misoprostol.

251. Drug used to keep PDA open -

a) PGE1

b) PGI2

c) PGE

d) PGH2

Correct Answer - A
Answer- A. PGE1
Prostaglandin nt 1fbe,; infusion usually efective in keeping the ductus arteriosus open before surgical intervention to reduce hypoxemia and acidemia before surgery in ductus dependent lesion like.

252. WPW syndrome is associated with -

a) Ebstein anomaly

b) TOF

c) VSD

d) TAPVC

Correct Answer - A
Answer- A. Ebstein anomaly
Wolff-Parkinson-White syndrome (WPW) is one of several disorders of the conduction system of the heart that are commonly referred to as pre-excitation syndromes.
People with WPW may have more than one accessory pathway seen in individuals with Ebstein's anomaly.

253. Most common syndrome associated with A-V canal defect -

a) Down syndrome

b) Klinfilter syndrome

c) Turner syndrome

d) Marfan syndrome

Correct Answer - A

Answer- A. Down syndrome

It is also called as atrioventricular canal defect (AVCD) or endocardial cushion defect.

It covers a spectrum of congenital heart malformation characterized by contiguous atrial and ventricular septal defects with markedly abnormal AV valve.

AVSD may be :-

1. Incomplete AVSD: It is the simplest form and nothing else but ostrium primum type of ASD in which there is a common atrioventricular junction but separate valvular orifices for right and left ventricles. It is more common in Down syndrome.
2. Complete AVSD : There is a common atriventricular junction and single common valvular orifice.

254. % of children with simple febrile seizure developing epilepsy is -

a) 1-2 %

b) 2-5 %

c) 5-10 %

d) 10-15 %

Correct Answer - A
Answer- A. 1-2 %
Between 2% to 7% of all children with febrile seizures develop epilepsy if followed upto the age of 25 years. Risk depends on type of febrile seizure :
1. Simple febrile seizures 4 2% of all children with simple febrile seizures.
2. Complex febrile seizures - 6-8% of all children with complex febrile seizures.

255. Common deformity in chiari H malformation is -

a) Syringomyelia

b) Meningo myelocele

c) Hydrocephalus

d) All of above

Correct Answer - D

Answer- D. All of above

Chiari malformation is divided into :

1. Type I : Produce symptoms during adolescence or adulthood is usually not associated with hydrocephalus. The deformity consists of displacement of cerebellar tonsils into the cervical canal.
2. Type II : It is characterized by progressive hydrocephalus with a myelomeningocele in newborns. There is a failure of pontine flexure during embryogenensis, which results in elongation of 4th ventricle; kinking of brainstem and breaking of quadrigeminal plate (tectum); along with displacement of inferior vermis, pons and medulla into cervical canal. This causes widening of cervical canal (syringomyelia).
3. Type III : Usually associated with occipital encephalocele and causes abundant neurological deficit.
4. Type IV : Characterised by lack of cerebeller development and usually not compatable with life.

256. A child of less than one year with asthma treatment -

a) MDI with Spacer

b) MDI with Mask

c) MDI with Spacer with Mask

d) MPI with mask

Correct Answer - C
Answer- C. MDI with Spacer with Mask
MDI alone require better press and breath co-ordination so used above 12 years of age.
MDI with spacer overcome breath co-ordination so used above 4 years of age.
MDI with spacer with mask can be used successfully in children below 4 years of age.

257. Treatment of bronchiolitis includes all except -

a) Macrolides

b) Humid oxygen

c) Bronchodilator

d) All of above

Correct Answer - A
Answer- A. Macrolides
Bronchiolitis is predominantly a viral disease.
1. RSV (most common)
2. Parainfluenza virus 3, 1, 2
3. Adenovirus
4. Influenza virus
5. Mycoplasma pneumoniae

Treatment is mainly symptomatic which includes humid atmosphere, bronchodilators (n-agonist, ipratromium, epinephrine nebulized) and antipyretics. Though antibiotics have no role, ribavarin, when indicated, is the antiviral agent of choice.

258. Most common pulmonary tumor in children is -

a) Carcinoid

b) Small cell carcinoma

c) Adeno carcinoma

d) Squamous cell carcinoma

Correct Answer - A
Answer- A. Carcinoid
The most common tumor types are carcinoid , inflammatory myofibroblastic tumor , and pleuropulmonary blastoma
Rare pediatric lung tumors including small cell carcinoma, adenocarcinoma, and pulmonary capillary hemangiomatosis were also seen.

259. Most common cause of per rectal bleeding in infant is -

a) Anal fissure

b) Rectal polyp

c) Intussusception

d) Hypertension

Correct Answer - A
Answer- A. Anal fissure
Anal fissures are the most common cause of rectal bleeding in infants and children.

260. Most common anomaly of upper urogenital tract is -

a) Uretero pelvic junction stenosis

b) Ectopic uretheral opening

c) Ureterocele

d) Ectopic ureter

Correct Answer - A
Answer- A. Uretero pelvic junction stenosis
Most common cause of urinary tract obstruction in children - Posterior urethral valves.
Most common cause of lower urinary tract obstruction in children -> Posterior urethral valves.
Most common cause of upper urinary tract obstruction in children 4 PUJ obstruction.

261. Features of cystinuria are

a) Impaired proximal tubular reabsorption of cystine

b) Autosomal recessive

c) Recurrent renal stone

d) All of the above

Correct Answer - D

Answer- D. All of the above

Cystinuria

- **Biochemical Defect**: An autosomal recessive disorder that results in the formation of a defective amino acid transporter in the renal tubule and intestinal epithelial cells.
- **Pathophysiology**: The amino acid transporter is responsible for transporting cystine, ornithine, lysine, and arginine. Defective tubular reabsorption of these amino acids in the kidneys results in increased cysteine in the urine, which can precipitate and cause kidney stones.
- **Clinical Manifestations**: Cysteine kidney stones presenting with severe, intermittent flank pain and hematuria.
- **Lab findings**: Increased urinary excretion of cystine, ornithine, arginine, and lysine on urine amino acid chromatography; hematuria and cysteine crystals (hexagonal) on the cooling of acidified urine sediment.
- **Imaging**: Radiopaque kidney stones on CT scan. The most specific test is the cyanide–nitroprusside test

Treatment: Low-methionine diet; increased fluid intake; acetazolamide to alkalinize the urine. If this fails then patients are usually started on chelating therapy with penicillamine.

262. Second degree consanguineous marriage, baby with diarrhoea, perianal diaper area redness -

a) Lactose intolerance

b) Shigella diarrhoea

c) Salmonella

d) Fungal

Correct Answer - A
Answer- A. Lactose intolerance
In Lactose intolerance, there is deficiency of enzyme lactase.
So No natural breakdown of lactose - a carbohydrate present in milk.
This causes diarrhoea.
Stool contains reducing sugar which causes perianal excoriation.

263. On USG a mass was found in abdomen which was displacing the kidney laterally in 1 year old child -

a) Neuroblastoma

b) Nephroblastoma

c) RCC

d) All of the above

Correct Answer - A
Answer- A. Neuroblastoma
The commonest intra-abdominal tumor in first two years of life
Neuroblastoma

264. Drugs used in ALL in child are all except -

a) Methotrexate

b) Vincristine

c) Vinblastine

d) Cyclophosphamids

Correct Answer - C

Answer- C. Vinblastine

Treatment of ALL is divided into 4 stages. The total duration of treatment ranges between 2 and 2% years.

1. Induction of remission

- Induction therapy is used to attain remision, i.e., to eradicate the leukemic cells from bone marrow.
- Drugs used are 4 Vincristine, Prednisolone, L - Asparginase, Anthracycline. Duration of therapy is 4-6 weeks..

2. CNS therapy

- Most children with leukemia have subclinical CNS involvement at the time of diagnosis. Moreover, CNS acts as a sanctuary site where leukemic cells are protected from systemic chemotherapy because of blood brain barrier. So, treatment to keep leukemia cells from spreading to the CNS is often started with induction.
- Treatment include 4 Intrathecal methotrexate plus cranial radiation.

3. Intensification

- If the patient goes into remission, the next step is to intensify the therapy for a short period.
- Drugs used are 4 Methotrexate, L - Asparginase, Epipodophyllotoxin, Cyclophosphamide, Cytarabine.

4. Maintenance therapy

- After consolidation, the patient is generally put on a maintenance therapy to maintaine the remission state and prevent relapse.
- Drugs used are 4 6-mercaptopurine, Methotrexate, Prednisolone, Vincristine. Duration of maintenace therapy is 2-2.5 years.

265. 34 week primigravida punjabi khatri comes with history of consanguineous marriage, with history of repeated blood transfusion to her sibling since 8 months of age. The first diagnostic test is -

a) HPLC

b) Blood smear

c) Bone marrow

d) Hb electrophoresis

Correct Answer - B

Answer- B. Blood smear

Type of hemoglobin is detected by Hb electrophoresis.

In this case, Hb electrophoresis of the woman should be done. If she comes positive for abnormal hemoglobin, she should be counselled about termination of pregnancy.

266. 3 beta hydroxysteroid dehydrogenase deficiency causes increase production of -

a) DHEA

b) Progesterone

c) Deoxycortisol

d) Estradiol

Correct Answer - A
Answer- A. DHEA
There is elevated level of pregenolone, 17a-OH pergenelone DHEA and decreas level of progesterone, deoxycortisol and estradiol.

267. 2-5 year old child with DM, target HbA, C is -

a) < 8 %

b) < 7 %

c) < 9 %

d) < 6 %

Correct Answer - C
Answer- C. < 9 %
In children below 5 year of age, target HBA1C is 7.5 - 9%.

268. Prenatal diagnosis of Down Syndrome is by -

a) Karyo typing

b) Triple test

c) Fetal ultrasonography

d) All of above

Correct Answer - D

Answer- D. All of above

Following methods are used :

1. Triple test : It includes (i) Unconjugated estrogen (estriol) : decreased; (ii) Maternal serum alpha-feto protein (MSAFP): decreased; and (iii) hCG : increased (Note : All these three markers are decreased in Edward syndrome)
2. New markers : These are (i) Increased inhibin A in maternal blood; and (ii) Decreased PAPA (pregnancy associated plasma protein).
3. USG : It shows : (i) Increased nuchal translucency (increased nuchal fold thickness) in first trimester; (ii) Ductus venous flow reversed; and (iii) Nasal bone hypoplasia.
4. Karyotyping : It can be done by chorionic villus sampling at 10-12 weeks or aminocentesis at 16-18 weeks.

269. 5 year old child develop fever and rash on first day and rash disappear, after few days develop child develop ataxia. Most probable diagnosis is -

a) Measles

b) Fifth disease

c) Chicken pox

d) Rocky mountain spotted fever

Correct Answer - A
Answer- A. Measles
Information :
1. Rash on 1st day
2. Complication like ataxia
3. Diagnosis is chicken pox.

270. MC symptom of AIDS in infant is -

a) GI infection

b) Persistent cough

c) Failure to thrive

d) Lymphadenopathy

Correct Answer - A
Answer- A. GI infection
Features in older children -

- Growth failure
- Fever
- Diarrhea
- Secondary infection

271. Baby borne to patient suspected of chlamydial infection sample to be taken for diagnosis -

a) Conjunctival

b) Urethral

c) Urine sample

d) Blood

Correct Answer - A
Answer- A. Conjunctival
About 70% of baby born to positive chlamydal infection develop conjuctivitis at day 5 of life so sample taken for diagnosis is conjuctival.
Chlamydal infection is most common cause of conjuctivitis in newborn.
Chlamydal infection causes watering dischange form eye (unlike purulent dischange in Gonococcal).
[Ref Debbie-Metal Newborn & Infant Nursing Review (NAINR 2004)]

272. Features of Refsum disease are all except -

a) Ataxia

b) CCF

c) Ichthiois

d) Retinitis pigmentosa

Correct Answer - B
Answer- B. CCF
Peroxisomal disorder.
Defective enzyme - phytonoyl CoA oxidase.
Clinical feature includes
1. Impaired vision (retinitis pigmentosa).
2. Icthyosis
3. Peripheral neuropathy.
4. Ataxia

273. Young child with laughing spells. Diagnosis -

a) Hypothalamic hamartoma

b) Tetralogy of fallot

c) Nitrous oxide poisoning

d) None of the above

Correct Answer - A
Answer- A. Hypothalamic hamartoma
Laughing spills (also know as Gelastic seizure)
Gelastic seizures are epileptic events characterized by bouts of laughter. Laughter-like vocalization is usually combined with facial contraction in the form of a smile. Autonomic features such as flushing, tachycardia, and altered respiration are widely recognized. Gelastic seizures have been associated classically to hypothalamic hamartomas.

274. Thirteen pair of Ribs are seen in ?

a) Down syndrome

b) Holt oram

c) Turner

d) Fibrous dysplasia

Correct Answer - A
Answer- A. Down syndrome
7 pair Trisomy 21, cleidocranial dysplasia
11 pair Trisomy 18,21
13 pair Trisomy 21
14 pair VATER Syndrome
[Ref Abnormal number of fetal ribs in USG by Liat Gindes et.al.]

275. What is the age of the child who draws a circle and builds tower of 7 cubes?

a) 1 year

b) 2 years

c) 21/2 years

d) 3 years

Correct Answer - D

Answer- D. 3 years

Age	**Milestone**	**Age**	**Number of cubes of tower**
12-24	Tries to scribble spontaneously	12 months	2
		months	3
2 years	Draws a vertical or horizontal line	15 months	4
3 years	Draws a circle	18 months	6
4 years	Draws a cross (plus sign) and draws a rectangle	21 months	7
		24 months	
5 years	Draws a triangle	30 months	9
		36 months	10

276. By what age is the milestone of climbing steps with alternate feet achieved?

a) 2 years

b) 3 years

c) 4 years

d) 5 years

Correct Answer - B
Answer- B. 3 years
Walk independently- 1 year
unwell, climbing upstairs and going downstairs with one step at a time- 2 years
Ride tricycle; climbing upstairs with alternate feet- 3 years
Hopping; going downstairs with alternate feet- 4 years
Skipping- 5 years

277. Mature finger grip comes at what age?

a) 5 months

b) 7 months

c) 9 months

d) 1 year

Correct Answer - C
Answer- C. 9 months
6 months → Drops one object when another is offered
7 months → Transfers object & unidextrous approach
9 months → -p Pincer grasp
12 — 13 months → Casting appear, mouthing disappear
15 months → Feeds himself with cup, slight spillage

278. Social smile is attained at what age?

a) 2 months

b) 5 months

c) 9 months

d) 1 year

Correct Answer - A
Answer- A. 2 months
Social smile develops at 2 months.

279. Arrange the following milestones in the correct order of their attainment

I. Build tower of 4 cubes
II. Make simple sentences
III. Drawing a circle
IV. Drawing a rectangle

a) II → III → IV → I

b) I → II → III → IV

c) II → I → III → IV

d) I → II → IV → III

Correct Answer - B
Answer- B. I → II → III → IV
The age of attainment of the milestones is :-

- Builds a tower of 4 cubes →18 months
- Makes simple sentences → 2 years
- Drawing a circle → 3 years
- Drawing a rectangle → 4 years

280. By what age can a newborn recognize mother?

a) 2 months

b) 3 months

c) 6 months

d) 7 months

Correct Answer - B
Answer- B. 3 months
Head control
Starts cooing
Recognizes mother
Can follow an object upto 180°
On pulling the child to sit, head lags partially (between 2-3 months).
After 3 months head control develops.

281. Which of the following can be done by an 18 months old baby?

a) Making tower of 9 cubes

b) Can use 10 words with meaning

c) Ride tricycle

d) Turn pages of book one at a time

Correct Answer - B
Answer- B. Can use 10 words with meaning
At 18 months, the child can use 10 words with meaning.

282. A child of 5 years can use sentences of around how many words?

a) 6 words

b) 10 words

c) 100 words

d) 250 words

Correct Answer - B
Answer- B. 10 words
Although a child has a vocabulary of 250 words at 3 years, the child can use sentence of 10 words at 5 years.

283. Milestones achieved by a 10 months old child are all except -

a) Pincer grasp

b) Waving bye - bye

c) Standing without support

d) Plays a peek - a - boo game

Correct Answer - C
Answer- C. Standing without support
Baby stands without support by 1 year of age.
Pincer grasp → 9 months
Waving bye - bye → 9 months
Plays a peek - a - boo game → 10 months

284. What is the age of a child who can identify 4 colours and draw a triangle?

a) 21/2 years

b) 3 years

c) 4 years

d) 5 years

Correct Answer - D
Answer- D. 5 years
A child learns to draw a triangle at the age of 5 years.
Identification of four colours is attained at the age of 4 years.

285. Weight of an infant doubles by what age?

a) 6 months

b) 1 year

c) 2 years

d) 3 years

Correct Answer - C
Answer- C. 2 years
Weight of an infant doubles by 5 months and quadruples by 2 years of age.

286. Growth of head circumference in 1st 3 months of life is by

a) 2 cm

b) 3 cm

c) 5 cm

d) 10 cm

Correct Answer - C

Answer- C. 5 cm

Head circumference is measured from the occipital protuberance to the supraorbital ridge of forehead which is the maximum occipito frontal diameter of skull. The head circumference in utero grows by 0.5 cm in first 2 weeks, 0.75 cm in 3rd week and after that 1 cm/week till birth.

287. Delayed eruption is failure of teeth to appear by

a) 6 months

b) 13 months

c) 25 months

d) 37 months

Correct Answer - B
Answer- B. 13 months
Delayed eruption is usually considered when there are no teeth by approximately 13 months of age (mean + 3 SD).
Common causes of delayed eruption of teeth include :-
Idiopathic (Most common).
Hypothyroid
Hypoparathyroid
Familial

288. Breast milk protects from infections as it contains all of the following except:

a) IgE

b) Lactoferrin

c) Bifidus factor

d) PABA

Correct Answer - A

Answer- A. IgE

Breast milk contains several antiinfective factors

1. Antibodies -3 secretory IgA, IgM
2. Lysozyme
3. Antistaphylococcal factor
4. Specific inhibitory substances against viral infections.
5. Lactoferrin → Inhibits growth of E. coli.
6. Bile stimulated lipase → kills entamoeba histolytica and Giardia lamblia.
7. Bifidus factor → Inhibits growth of E. coli
8. Para-amino-benzoic acid (PABA) → Provides protection against malaria ix) Phagocytic macrophages and lymphoid cells

289. Which of the following is true regarding premature milk as compared to mature milk?

a) Less lactose

b) Less iron

c) Less immunoglobulins

d) Less sodium

Correct Answer - A

Answer- A. Less lactose

Preterm milk

- The milk of mother who delivers prematurely differs from the milk of a mother who delivers at term.
- Preterm milk contains : Less lactose (in comparison to term milk).
- Contains more protein S, sodium, iron, immunoglobins and calories as they are needed by the preterm baby.

290. All of the following are true regarding breast milk as compared to cow's milk except

a) Contains more lactose

b) More amount of proteins

c) Less amount of fat content

d) Minerals and salts is less

Correct Answer - B

Answer- B. More amount of proteins

In comparison to cow milk, human milk contains less amount of : Proteins (1 gm/ 100 ml), salts (sodium, chloride, potassium), fat (3.4 gm/100 ml), and minerals (calcium, phosphate) & more : Lactose (7g/100 ml or 7%).

291. Which of the following is the best reference for growth monitoring in children?

a) ICMR

b) NCHS

c) Boston

d) IAP

Correct Answer - B

Answer- B. NCHS

WHO reference values (NCHS standards)

- These are most commonly used and best available reference values for international use.
- These values are based on the data assembled by United States National Centre for Health Statistics (NCHS).
- Classification of PEM is based on these standards

292. Kwashiorkar is due to deficiency of

a) Calories

b) Minerals

c) Vitamins

d) Zinc

Correct Answer - A
Answer- A. Calories
Marasmus and kwashiorkor are due to deficiency of proteins and calories.
It is characterized by classical 'triad' of edema (Due to hypoalbuminemia), markedly retarded growth and psychomotor (mental) changes.

293. Features of marasmus are all except :

a) Absence of anasarca

b) Increased appetite

c) Excessive catabolism of adipose tissue and muscle protein

d) Uncompensated phase of PEM

Correct Answer - D

Answer- D. Uncompensated phase of PEM

It is due to prolong deficiency of calories and proteins. Thus there is exessive catabolism of adipose tissue and muscle protein.

It is characterized by gross wasting of muscle and subcutaneous tissues resulting in emaciation and marked stunting.

Child may show voracious appetite.

Marasmus represents the compensated phase of PEM.

294. All of the following are causes of pseudoparalysis except

a) Osteomyelitis

b) Scurvy

c) Septic arthritis

d) Polio

Correct Answer - D
Answer- D. Polio
Causes of pseudoparalysis
1. Scurvy (vitamin C deficiency)
2. Osteomyelitis
3. Septic (arthritis)
4. Congenital syphilis

295. Which of the following can lead to regression of developmental milestones

a) Rett's syndrome

b) Autism

c) Neuromuscular diseases

d) All of the above

Correct Answer - D
Answer- D. All of the above
The hallmark of many degenerative disorders is neurological regression.
Loss of only language skills – autism – suspected.
Regression of both language and motor milestones → Rett's syndrome.

296. All of the following are features of Rett's syndrome except

a) Microcephaly

b) Regression of milestones

c) Cardia arrhythmias

d) Focal Convulsions

Correct Answer - D
Answer- D. Focal Convulsions
This is the characteristic features, that they begin to loose their acquired skills, e.g., cognitive and head growth is normal during early period after which there is an arrest of growth.
Acquired microcephaly (Decleration of head growth due to significantly reduced brain weight).
Most children develop peculiar sighing respirations with intermittent periods of apnea that may be associated with cyanosis -4 Breath holding spells.

297. Child while playing has sudden loss of consciousness and appears pale. There is no significant medical history and the child was otherwise healthy. Which of the following is the most probable diagnosis?

a) Attention deficit hyperkinetic disorder

b) Breath holding spell

c) Autism

d) Rett's syndrome

Correct Answer - B

Answer- B. Breath holding spell

Pallid form (Pallid spells)

- These are initiated by painful experience, e.g falling and striking the head.
- Pallid spells are due to excessive central parasympethetic activity.
- Clinical features include pallor, apnea, loss of consciousness, hypotonia, seizures and bradycarda.
- Treatment includes support and reassurance of parents. Atropine may be used in refractory cases

298. Infantile body proportion in adults is seen in all except-

a) Achondroplasia

b) Hypothyroidism

c) Klinefelter's syndrome

d) Cretinism

Correct Answer - C
Answer- C. Klinefelter's syndrome
Infantile type body porportion

- Achondroplasia
- Juvenile myxedema (hypothyroidism)
- Cretinism

299. If chronological age > skeletal age with normal growth velocity, then the final height that is expected to be achieved is

a) Normal

b) Less because of small bones

c) More than expected

d) Less because of epiphyseal closure due to accelerated growth velocity

Correct Answer - A

Answer- A. Normal

If the growth velocity is normal but the chronological age is more than the bone age, then the diagnosis is Constitutional delay in growth.

Constitutional delay in growth

- It is the most common cause of short stature in mid childhood period but the ultimate height is normal.
- Their birth weight and height are normal. Strong family history of parents having short stature in childhood with delay in onset of puberty is usually present.

300. Which of the following about hormone levels in a malnourished child is true?

a) Increased insulin levels

b) Decreased cortisol levels

c) Increased growth hormone

d) All of the above

Correct Answer - C
Answer- C. Increased growth hormone
changes in PEM

- Decreased insulin levels
- Increased cortisol
- Increased growth hormone

301. A 9 month old child with respiratory rate 53/min and presence of cough is classified as :

a) SIRS

b) Respiratory distress

c) Tachypnoea

d) ARDS

Correct Answer - C

Answer- C. Tachypnoea

Tachypnea (fast breathing) : Fast breathing is defined as:

1. less than 2 months of age -> 60 breaths per minute
2. Child aged 2 months upto 12 months - 50 breaths per minute
3. Child aged 12 months upto 5 years - 40 breaths per minute

302. A newborn after prolonged labour is not breathing well and after 30 seconds of receiving 100% oxygen by bag and mask, heart rate is 88 beats per min, what is the next step in management?

a) Discontinue oxygen and ventilation

b) Discontinue oxygen, continue ventilation

c) Continue oxygen and ventilation

d) Start chest compressions

Correct Answer - C

Answer- C. Continue oxygen and ventilation

After the infant has received 30 seconds of ventilation with 100% oxygen by bag and mask, evaluation of heart rate should be done -

- HR >100 → Discontinue ventilation if spontaneous respiration is present.
- HR 60 to 100 → Continue ventilation
- Below 60 → Continue ventilation + chest compressions

  After 30 seconds of chest compressions, the heart rate is checked.
- HR < 60 → Continue chest compression and bag & mask ventilation + initiate medications.
- HR > 60 → Discontinue chest compression but continue bag & mask ventilation until the heart rate is above 100.

[Ref: O.P.Ghai 7th/e p. 98]

303. How are chest compressions given in a newborn?

a) Using palm on the lower third of sternum

b) Using two fingers on the middle third of sternum

c) Using the two thumbs on the lower third of sternum

d) Using three fingers on the lower third of sternum

Correct Answer - C

Answer- C. Using the two thumbs on the lower third of sternum

Two - finger technique

- The tips of the middle finger and either the index finger or ring finger of one hand are used to compress the sternum.
- The other hand is used to support the infant's back, unless the infant is on a very firm surface.

304. Asymmetric tonic neck reflex disappears at what age?

a) 2 months

b) 3 months

c) 6 months

d) 8 months

Correct Answer - C
Answer- C. 6 months
Assymmetic tonic neck- wks of gestation 4-6 → 6-7 months

305. True about tonic neck reflex is

a) Extension of arm on ipsilateral side, flexion on contralateral side

b) Extension of arm on contralateral side, flexion on ipsilateral side

c) Extension of arms on both sides

d) Flexion of arms on both sides

Correct Answer - A

Answer- A. Extension of arm on ipsilateral side, flexion on contralateral side

The tonic neck reflex is produced by manually rotating the infant's head to 1 side and observing for the characteristic fencing posture (extension of the arm on the side to which the face is rotated and flexion of the contralateral arm).

An obligatory tonic neck response, in which the infant becomes "stuck" in the fencing posture, is always abnormal and implies a CNS disorder.

306. Closure of patent ductus arteriosus is stimulated by?

a) Prostaglandin F2a

b) Cycloxygenase

c) Increase in 02 tension at birth

d) Hypercarbia

Correct Answer - C

Answer- C. Increase in 02 tension at birth

The mechanism producing the initial constriction of ductus arteriosus is not completely understood, but the increase in arterial 02 tension plays an important role.

One more factor which helps in closure of the ductus arteriosus is the decrease in concentration of prostaglandins at the time of birth.

307. False about PDA is

a) More common in females

b) Anatomical closure takes 21 hours after birth

c) PGE maintains patency of ductus

d) Dilatation of ascending aorta

Correct Answer - B
Answer- B. Anatomical closure takes 21 hours after birth
Patent ductus arteriosus is a communication between the pulmonary artery and aorta.
'Functional closure' takes place within 15 hours of birth. 'Anatomic closure' of ductus arteriosus occurs 10-21 days after birth.
Prostaglandins maintain the patency of ductus.
The persistence of function of ductus arteriosus beyond 24 hours after birth is considered as PDA in term neonate, i.e. if functional closure does not take place in 24 hours after birth, it is considered as PDA.

308. Which of the following is not seen in patent ductus arteriosus?

a) Left atrial hypertrophy

b) Left ventricular enlargement

c) Continuous murmur

d) Attenuated SI

Correct Answer - D
Answer- D. Attenuated SI
Increased flow after passing through lung reaches the left atrium and causes volume overload → Left atrial dilatation and hypertrophy.
Increased blood volume passes from left atrium to left ventricle through mitral valve, i.e., increased flow through mitral valve → Accentuation of S1 and delayed diastolic murmur.
Left ventricle receives larger amount of blood that results in volume overload → Left ventricle enlargement.

309. Which of the following congenital anomalies leads to heart failure at birth?

a) Total anomalous pulmonary venous connection

b) Transposition of great arteries

c) Pulmonary atresia

d) Coarctation of aorta

Correct Answer - C
Answer- C. Pulmonary atresia
Timing of CHF in congenital heart diseases- Pulmonary, mitral and aortic atresias
Hypoplastic left and right heart syndromes, transposition and malposition of great ate ries.

310. Most important prognostic marker of tetralogy of fallot

a) VSD

b) Pulmonary stenosis

c) Overriding of aorta

d) Right ventricular hypertrophy

Correct Answer - B
Answer- B. Pulmonary stenosis
Tetrology of fallot has 4 components:
1. Obstruction to right ventricular outflow (pulmonary stenosis),
2. A mal-alignment type of ventricular septa] defect (VSD),
3. Dextro position of the aorta so that it overrides the ventricular septum, and
4. Right ventricular hypertrophy

[Ref Nelson 20th le p. 2211]

311. Microcephaly is common in children of mothers with all except

a) Alcohol intake

b) Warfarin intake

c) Warfarin intake

d) Varicella

Correct Answer - B

Answer- B. Warfarin intake

Secondary

- Structural defects : Neural tube defects (anencephaly, encephalocele).
- Metabolic disorders : Rhenylketonuria, citrullinemia, methylmalonic aciduria.
- Congenital infections : Rubella, CMV, HSV, toxoplasmosis, syphilis, varicella.
- Teratogens : Alcohol, tobacco, cocaine, heroin.
- Others : Maternal diabetes, maternal phenylketonuria, hypothyroidism, hypopituitrism, adrenal insufficiency.

312. What is the capacity of stomach at birth

a) 5 ml

b) 25 ml

c) 50 ml

d) 100 ml

Correct Answer - C
Answer- C. 50 ml
Day 1 5 - 7 ml. Size of cherry
Day 3 22 - 27 ml. Size of walnut
One week 45 - 60 ml. Size of an apricot
One month 80 - 150 ml. Size of a large egg

313. Colour of stools in breastfed new born is -

a) Red

b) Green

c) Black

d) Golden

Correct Answer - D
Answer- D. Golden
Colour of stools in neonate

- Meconium (first stool) is passed within 24 hours. After that meconium stools (black tarry) can be passed upto 3 days.
- On 4th-5th days transitional stools (greenish) are passed. After 5 days regular milk stools (golden yellow) are passed.
- There is golden discoloration of stool.

314. Trigonocephaly is due to premature closure of which suture?

a) Sagittal suture

b) Metopic suture

c) Lambdoid suture

d) Coronal suture

Correct Answer - B
Answer- B. Metopic suture
Trigonocephal- Metopic suture
Keel shaped forehead

- Hypotelorism
- Abnormalities of forebrain

315. Which of the following is not a feature of Minimal change disease?

a) Hypertension

b) Edema

c) Proteinuria

d) Responsive to steroid therapy

Correct Answer - A
Answer- A. Hypertension
Minimal Change Disease is the most common cause of Nephrotic syndrome in children.
Edema and Selective proteinuria are features of nephrotic syndrome. Fever may be present on account of increased susceptibility to infection.
Minimal change disease prsents with insidious onset of nephrotic syndrome in children below 6 years of age.
Hypertension is not a feature of nephrotic syndrome and is rare in Minimal change disease.
Hematuria (a finding of nephritic syndrome) is also rare.

316. What is the rate of CSF formation in children?

a) 0.3 ml/min

b) 1 ml/min

c) 3 ml/min

d) 20 ml/min

Correct Answer - A
Answer- A. 0.3 ml/min
The rate of CSF formation in children and adults is :-

- 0.3 to 0.4 ml/min OR
- 18 to 20 ml/hour

317. Most common cause of cranial irradiation in children is

a) Small cell lung Ca

b) ALL

c) AML

d) Craniopharyngioma

Correct Answer - B
Answer- B. ALL
ALL and small cell lung Ca are two major indications for cranial irradiation, even prophylactically to prevent brain metastasis.
In children, ALL is the most common cause.

318. Which of the following is not a feature of physiological anaemia of infancy?

a) Term infant hemoglobin 7 gm%

b) Preterm infant hemoglobin 7 gm%

c) Term infant hemoglobin 9 gm%

d) Preterm infant hemoglobin 9 gm%

Correct Answer - A

Answer- A. Term infant hemoglobin 7 gm%

Physiologic Anemia of Infancy

1. Hemoglobin drops to low point at age 6 to 8 weeks
2. Erythropoietin nadir drops Hemoglobin
3. Term Infants: Hemoglobin drops to 9-11 g/dl
4. Preterm Infants: Hemoglobin drops to 7-9 g/dl

[Ref Anemia in infancy, pediatric in review American academy of pediatrics 2012]

319. Mean hemoglobin in a 1 year old child is

a) 18.5 g/dl

b) 16.5 g/d1

c) 14 g/c11

d) 12 g/dl

Correct Answer - D

Answer- D. 12 g/dl

		Hb level (g/L)		Prevalence (%)	
Age (mo)	**N**	**Meam**	**SE**	**Mild anemia (Hb<110 g/L)**	**Moderate to Severe anemia (Hb<80 g/L)**
0-5	56	9.8	0.21	78.1	5.2
6-11	88	10.08	0.17	75.3	5.8
12-23	128	10.04	0.21	63.3	11.9
24-60	251	10.18	0.13	68.3	8.1
Totel	523	10.09	0.09	69.3	8.3

Hb, hemoglobin

a. Means and frequencies are weighted.

320. Amino acid metabolism is implicated in which disease?

a) Maple syrup urine disease

b) Reye's syndrome

c) Von Gierke's disease

d) McArdle's disease

Correct Answer - A
Answer- A. Maple syrup urine disease
It is due to deficiency of enzyme that catalyzes the second reaction in these amino acids metabolism i.e. branched chain-a keto acid dehydrogenase which catalyses decarboxylation of branched chain amino acids.

321. A 3 months old child was started on supplemental foods alongwith breastmilk. The child was fed with fruit pulp and sweetened cereals. Soon the child developed bloating of abdomen, vomiting, lethargy, irritability. On investigation, there was hyperbilirunemia and elevated transaminase levels. The child is suffering from which of the following enzyme deficiencies?

a) Fructokinase

b) Aldolase B

c) Gal actokinase

d) Galactose - 1 - phosphate uridyl transferase

Correct Answer - B
Answer- B. Aldolase B
Symptoms occur when foods or formulas containing these sugars are introduced into the diet.
Clinical manifestations resemble galactosemia and include jaundice, hepatomegaly, vomiting, lethargy, irritability, and convulsions.
Laboratory findings include a prolonged clotting time, hypo-albuminemia, elevation of bilirubin and transaminase levels, and proximal tubular dysfunction.

322. All are true about sacrococcygeal teratoma except

a) Not associated with increased serum markers

b) In most cases is not visible externally

c) If associated with hydrops, should be resected antenatally

d) Most common tumor of fetus

Correct Answer - B
Answer- B. In most cases is not visible externally
Ureters may be partially obstructed resulting in hydro-ureter and hydronephrosis.
Sacrococcygeal Teratoma (SCT) is the most common neoplasm in the fetus and newborn
Most common tumor in fetus and neonate sacrococcygeal teratoma
Most common tumor in infancy neuroblastoma.
They are not associated with elevated markers unless malignancy is present.
Sacrococcygeal teratoma with hydrops :- Treatment - Inutero resection or catheter directed vessel obliteration

323. Most common sign of LRTI [Lower respiratory tract infection] in children is

a) Chest indrawing

b) Tachypnea

c) Nasal flaring

d) Failure to feed well

Correct Answer - B

Answer- B. Tachypnea

Tachypnea is the most consistent manifestation of pneumonia. Pneumonia is an inflammation of the parenchyma of lungs, and mostly caused by bacterial or viral infection.

Most common cause of paediatric pneumonia is respiratory syncytial virus (RSV). Other viruses causing pneumonia are influenza virus (2"° most common virus), adenovirus, rhinovirus, and parainfluenza virus.

324. Which of the following is not a sign of severe dehydration?

a) Tachycardia

b) Anuria

c) Increased thirst

d) Delayed capillary refill [>3 sec]

Correct Answer - C
Answer- C. Increased thirst
Peripheral pulses either rapid and
weak or absent
Decreased blood pressure
No urine output
Very sunken eyes and fontanel
No tears
Parched mucous membrane
Delayed elasticity (poor skin turgor)
Very delayed capillary refill (> 3 sec)
Cold and mottled
Limp
Depressed consciousness

325. What is the grade of dehydration if a child demonstrates excessive thirst and decreased urine output?

a) No dehydration

b) Mild dehydration

c) Moderate dehydration

d) Severe dehydration

Correct Answer - B
Answer- B. Mild dehydration
Normal or increased pulse
Decreased urine output
Thirsty
Normal physical findings

326. Which of the following cannot be used to detect HIV status in early infancy?

a) DNA - PCR

b) HIV culture

c) ELISA

d) P - 24 antigen assay

Correct Answer - C
Answer- C. ELISA
ELISA or Western blot test are not as reliable in young infants.
In older infants (> 6 months), detection of anti-HIV IgA antibodies by ELISA is diagnostic.
In children (> 18 months) demonstration of anti-HIV IgG antibodies by ELISA is used.

327. Teratology is a study of

a) Congenital heart defect

b) Congenital abnormalities

c) Wounds and injuries

d) None of the above

Correct Answer - B
Answer- B. Congenital abnormalities
Study of Congenital heart defects is a part of the broad spectrum of congenital abnormalities, the study of which is known as Teratology

328. Russell silver syndrome is associated with which of the following?

a) Autosomal inheritance

b) X - linked inheritance

c) Sporadic gene mutation

d) Uniparental disomy

Correct Answer - D
Answer- D. Uniparental disomy
Angelman syndrome
Prader Willi syndrome
Pseudohypoparathyroidism Ib
Transient neonatal diabetes mellitus
Beckwith - Wiedemann syndrome
Russell silver syndrome
Wang syndrome
Temple syndrome

329. Which of the following is not a feature of Down's syndrome?

a) Hypotonia

b) Infections

c) Female infertility

d) Early onset Alzheimer's disease

Correct Answer - C
Answer- C. Female infertility
GIT :- Anal atresia, Duodenal atresia, Hirschsprung disease, annular pancreas.
Increased incidence of leukemia (1%). Leukemias common are ALL (most common), AML (M7-AML) transient myeloproliferative disorders, and Juvenil CML.
Others : Early onset of Alzheimer's disease, Decreased immunity with recurrent infections, obesity, DM, Hypothyroidism (most common endocrine abnormality).

330. Which of the following is not a feature of Turner's syndrome?

a) Cubitus valgus

b) Cryptorchidism

c) Short fourth metacarpal

d) Shield chest

Correct Answer - B

Answer- B. Cryptorchidism

Clinical features in adolescents are short stature, webbed neck, low posterior hair line, widely spaced nipples with broad chest (shield chest), hypertelorism, epicanthus, slanted palpebral fissure, ptosis, micrognathia, cubitus valgus (increared carrying angle), sensorineural hearing loss, short fourth metacarpal, hypothyroidism, streak ovaries, and sexual infantilism. Turner syndrome is the most important cause of primary amenorrhea.

331. Which of the following is true regarding Turner's syndrome?

a) Cubitus valgus

b) Autosomal dominant

c) Monosomy of chromosome 12

d) Sensorineural hearing loss

Correct Answer - A
Answer- A. Cubitus valgus
Turner syndrome is a monosomy of sex chromosome (not autosomal dominant). Cubitus valgus is a feature of Turner syndrome. SNHL is not a feature.

332. Most common cause of shock in child

a) Septic shock

b) Hypovolemic shock

c) Cardiogenic shock

d) Anaphylactic shock

Correct Answer - B
Answer- B. Hypovolemic shock
Hypovolemia is the most common cause of shock in children.
The 2nd most common cause - Septic or distributive shock .
3rd most common - Cardiogenic shock

333. Which is the prognostic scoring system for head injury in children?

a) CCS

b) AUDIT

c) Injury severity score

d) Pediatric Trauma Score

Correct Answer - A

Answer- A. CCS

Table 1: Children Coma Score (CC S) < 2 years"

Ocular Response	
4	Pursuit
3	Extra ocular muscles intact reactive pupils
2	Fixed pupils and EOM impaired
1	Fixed pupils and EOM paralyzed
Verbal response	
3	Cries
2	Spontaneous respiration
1	Apneic
Motor responses	
4	Flexes and extends
3	Withdraws from painful stimuli
2	Hypertonic
1	Flaccid
Total Max. Score	11
Total Min Score	

334. Which of the following is a criteria for clinical Stage II of AIDS in children?

a) Lymphadenopathy

b) Oral candidiasis

c) Hepatosplenomegaly

d) Oesophageal candidiasis

Correct Answer - C
Answer- C. Hepatosplenomegaly
Clinical Stage 2

- Hepatosplenomegaly
- Papular pruritic eruptions
- Seborrhoeic dermatitis
- Extensive human papilloma virus infection
- Extensive molluscum contagiosum
- Fungal nail infections
- Recurrent oral ulcerations
- Lineal gingival erythema (LGE)
- Angular cheilitis
- Parotid enlargement
- Herpes zoster

335. Which of the following is closed at birth?

a) Foramen ovale

b) Posterior fontanelle

c) Ductus venosus

d) Anterior fontanelle

Correct Answer - B
Answer- B. Posterior fontanelle
Posterior fontanelle

- Posterior fontanelle generally closes by 2-4 months after birth.
- Posterior fontanelle usually closes by the age of 1-4 months. But sometime it may be ossified (closes) at birth. Thus, it is the best answer among the given choices.

336. Harlequin skin change is seen due to mutation of which gene?

a) ABCA 12

b) FAD

c) Keratin 1

d) ALOXE 3

Correct Answer - A
Answer- A. ABCA 12
Harlequin ichthyosis (HI) is caused by mutations in the ABCAl2 gene.
Mutation in the gene leads to defective lipid transport and ABCAl2 activity is required for the generation of long-chain ceramides that are essential for the development of the normal skin barrier. It is inherited by autosomal recessive mode of inheritance.

337. Ritter disease is a disease caused by -

a) Infection

b) Autoimmune

c) Genetic

d) Metabolic disorder

Correct Answer - A
Answer- A. Infection
Staphylococcal scalded skin syndrome is caused predominantly by phage group 2 staphylococci, particularly strains 71 and 55, which are present at localized sites of infection.

338. Pink color in the IMNCI chart is suggestive of

a) Normal zone of weight for age

b) Undernutrition (Upto - 2SD)

c) Severely underweight zone (Upto - 3SD)

d) Very severely undernourished (Upto - 5SD)

Correct Answer - C
Answer- C. Severely underweight zone (Upto - 3SD)
Green - Normal zone of weight for age
Yellow - Undernutrition (upto - 2SD)
Pink - Severely underweight zone (upto - 3 SD)

339. 5DHT is necessary for development of which of the following?

a) External genitalia

b) Internal genitalia

c) Mullerian structures

d) Wollfian structures

Correct Answer - A
Answer- A. External genitalia
Virilization of the wolffian duct is caused by the action of testosterone itself.
Masculinization of the urogenital sinus and external genitals depends on the action of DHT (Dehydrotestosterone) during the critical period of fetal masculinization.

340. Prevalence of omphalocele at birth is

a) 1 in 100 live births

b) 1 in 2000 live births

c) 1 in 4000 live births

d) 1 in 10,000 live births

Correct Answer - C
Answer- C. 1 in 4000 live births
Incidence of omphalocele at 11 - 14 weeks gestation - 1 in 1100 pregnancies.
Prevalence at birth - 1 in 4000 - 6000 live births.
This indicates sudden mortality most likely due to in utero fetal demise from associated chromosomal anomalies as well as elective termination after the diagnosis

341. Pectus excavatum is

a) Protrusion of sternum

b) Sternal depression

c) Sternal cleft

d) Lateral displacement of sternum

Correct Answer - B
Answer- B. Sternal depression
Pectus excavatum (funnel chest) is midline narrowing of thoracic cavity due to sternal depression.
May occur in isolation or may be associated with a connective tissue disorder, Marfan or Ehlers-Danlos syndrome. Secondary to chronic lung disease, neuromuscular disease, or trauma.

342. A child aged 7 years has how many teeth

a) 15

b) 20

c) 26

d) 32

Correct Answer - C
Answer- C. 26
Permanent teeth that appear :

- 1st molars :- 4
- Central incisors :- 2
- Temporary teeth :- 20 (since molars are superadded permanent teeth and central incisors are replaced).
- So in all 26 teeth (Range 24 to 26) - at 7 years of age.

343. Child starts monosyllables speech in which age

a) 4 months

b) 6 months

c) 8 months

d) 10 months

Correct Answer - B
Answer- B. 6 months
3 months- Starts cooing
6 months- Produces monosyllable sounds like da, ma
9 months- Produces bisyllable sound like baba, mania

344. Nocturnal enuresis best t/t is

a) Positive reinforcement

b) Punishment

c) Bed alarm

d) Desmopressin

Correct Answer - A
Answer- A. Positive reinforcement
Consistent dry bed training with positive reinforcement has a success rate of 85% and bed and pad alarm systems have a success rate of approximately 75% with relapse rate that are lower than those with pharmacotherapy.

345. Neonatal lupus -

a) Heart block

b) Thrombocytopenia

c) Cutaneous lesion

d) All of above

Correct Answer - D
Answer- D. All of above
Neonatal lupus
Age of onset newborn to 6 month
Skin lesion include :

- Annular erythematous scaly plaque.
- Seen on sun exposed = head, neck
- May be associated with heart block/thrombocytopenia

Diagnosed by:

- ANA
- Anti RO antibodies

346. In Precocious puberty age limit of girls is-

a) 8 year

b) 10 year

c) 9 year

d) 11 year

Correct Answer - A
Answer- A.�8 year
Precocious puberty�in a girl is the appearance of any of the secondary sexual characteristics before the age of 8 years or the occurrence of menarche before the age of 10 years.
Precocious puberty�in boys is the onset of secondary sexual characteristics before the age of nine years.�

347. Malnourished child minimum weight gain

a) 5 gm/kg/day

b) 10 gm/kg/day

c) 15 gm/kg/day

d) 20 gm/kg/day

Correct Answer - A
Answer- A. 5 gm/kg/day
In malnourish child if there

- > 10 gm/kg/day = good weight gain
- 5-10 gm/kg/day = moderate weight gain
- < 5 gm/kg/day = poor weight gain

348. CPR with 2 candidate is done at rate of (in infant) -

a) 15 : 2

b) 30 : 2

c) 1 : 3

d) 1 : 5

Correct Answer - A
Answer- A. 15 : 2
In infant children with two resuscitator = 15 : 2
In adult with two resuscitator - 30 : 2
In single resuscitator chest compresion ventilation ratio in all age group i.e. Infant, children & adult = 30 :

349. Preterm baby have

a) Continue extramedullary hematopoesis

b) Greater risk of hypothermia

c) Greater risk of hypoglycemia

d) All of above

Correct Answer - D

Answer- D. All of above

Preterm baby (< 37 week of gestation). Have high risk for

- RDS (HMD)
- Broncho pulmonary dysplasia (BPD)
- PDA
- Anemia (early & late)
- IVH
- Sepsis
- NEC
- Jaundice
- Hypoglycemia, hypokalemia, hypothermia
- IVH
- ROP (Retinopathy of prematurity).

350. Pica refers to -

a) Ice sucking

b) Thumb sucking

c) Foreign object being put in the mouth

d) None of above

Correct Answer - C
Answer- C. Foreign object being put in the mouth
Pica involves repeated or chronic ingestion of non-nutritive substances, which include plaster, charcoal, clay, wool, ashes, paint & earth.

351. Low glucose level in premature

a) Increased brain to body ratio

b) Decreased glycogen stores

c) Decreased action of pyruvate carboxylase

d) All of above

Correct Answer - D
Answer- D. All of above
Hypoglycemia is common in pretem & IUGR babies b/c all three reason
1. Increased brain to body ratio.
2. Decrease action of pyruvate carboxylase.
3. Decrease glycogen store.

352. Temperature of NICU is

a) 20-22° C

b) 22-26° C

c) 26-30° C

d) 30-35°C

Correct Answer - B
Answer- B. 22-26° C
Standards for NICU thermal invornment

- Specify 72-76° F (22-26° C) as acceptable range for air temperature.

353. GBS in a child treatment -

a) IV Ig

b) Ventilation

c) Plasmapharesis

d) All of above

Correct Answer - D

Answer- D. All of above

Treatment of Guillain-barre syndrome -

- Self limited in majority of cases.
- Intravenous immunoglobin shows good response.
- Plasma pharesis - Removal of autoantibodies.
- Assisted ventilation - If patient had respiratory muscle paralysis.
- Physiotherapy.

354. Anemia of prematurity - True is

a) Marginal reticulocytosis

b) <10 gm criteria (Hb level)

c) 10 ml/kg packed cell

d) Microcytic hypo chromic type

Correct Answer - B

Answer- B. <10 gm criteria (Hb level)

Normocytic, normochromic, hyporegenerative anemia with EPO level.

AOP usually resolve spontaneously within 3-6 months.

Aetiology

1. RBC production (Reti. count)
2. RBC life span
3. Blood loss

- Low hemoglobin (below 10 gm%)
- Reticulocyte count is low.

Treatment :

- Require blood transfusion if needed.
- Observe if neonate is asymptomatic.

355. LEOPARD syndrome includes all except -

a) Growth retardation

b) ECG changes

c) Hypertelorism

d) Hypergonadism

Correct Answer - D
Answer- D. Hypergonadism
LEOPARD syndrome
Lentigines
Electrocardiographic conduction abnormalities
Ocular hypertelorism
Pulmonary stenosis
Abnormal genitalia
Retarded growth
Deafness

356. Blood transfusion to neonate rate of

a) 1-5 ml/min-5 ml/min.

b) 5-10 ml/min

c) 10-15 ml/min

d) 15-20 ml/min

Correct Answer - B

Answer- B. 5-10 ml/min

A) Exchange transfusion

- For term infant = 80-160 ml/kg
- For pre term = 100-200 ml/kg

B) Top-up transfusion

- Desired Hb (glds) - actual hb x kg x 3 (usually 10-20 ml/kg).
- Rate of transfusion 5-10 ml/min.

357. TB in children, most common is -

a) Abscess

b) Consolidation

c) Hilar adenopathy

d) CNS tuberculosis

Correct Answer - C
Answer- C. Hilar adenopathy
"Most common form of primary TB in children is pulmonary TB. This could be in the form of hilar lymphadenopathy with or without lung parenchymal involvement".

358. In children, CHF (congestion heart failure) is diagnosed by

a) Raised JVP

b) Pedal edema

c) Tender hepatomegaly

d) Basal crepts

Correct Answer - C

Answer- C. Tender hepatomegaly

Heart failure in infants & children results some degree of hepatemegaly which is usually tender & sometimes splenomegaly.

Peripheral edema is age dependent :

- In infants, edema usually eye & over flank.
- Older childern & adolescent shows both periorbital edema & pedal edema and occurs late.

359. Double arch aorta is seen in

a) CATCH 22

b) Digeorge syndrome

c) Sphrintzen velo cardio facial syndrome

d) None of above

Correct Answer - A
Answer- A. CATCH 22
CATCH 22 stands for

- Cardiac defect - double arch aorta. VSD, pulmonary atresia.
- Cleft palate
- Abnormal facies
- Hypocalcemia
- Thymic hypoplasia

360. Simian crease is not seen in -

a) Down

b) Trisomy 13

c) Atopic dermatitis

d) Noonan syndrome

Correct Answer - C
Answer- C. Atopic dermatitis
Simian crease
Single transverse palmer crease
Resembles non-human-simian so known as simian crease.
It is seen in :
1. Down syndrome
2. Fetal alcohol syndrome
3. Cri-du chat syndrome (Chr. 5)
4. Klinefelter (XXY)
5. Noonan (Chr. 12)
6. Patau (Chr. 13)
7. Edward (Chr. 18)

361. Treatment of simple febrile convulsion is based on

a) Control of fever

b) Rectal diazepam

c) CSF finding

d) Blood reports

Correct Answer - A

Answer- A. Control of fever

Prompt reduction of temperature by hydrotherapy (sponging) and antipyretics (paracetamole, ibuprofen) is the most important measure. If seizures lasts for more than 5 minutes, diazepam (rectal or IV) is the anticonvulsant of choice. Phenobarbitone is an alternative

362. Rehydration therapy in a 2 year old severely dehydrated child is -

a) 30 ml/kg in 1 hour, 70 ml in 5 hours

b) 30 ml/kg in 30 min, 70 ml/kg in 2'/2 hours

c) 20 ml/kg in 30 min, 80 ml/kg in 2'/2

d) 75 ml/kg in 4 hours

Correct Answer - B
Answer- B. 30 ml/kg in 30 min, 70 ml/kg in 2'/2 hours
12 Month - 5 year 30 ml/Kg in 30 min 70 ml/Kg in 2.30 hour

363. What is correct about febrile seizures

a) Normal EEG

b) Focal deficits

c) Repeated seizure

d) Abnormal EEG

Correct Answer - A
Answer- A. Normal EEG
Spontaneous remmission occurs with no postictal neurological deficit and EEG changes few days after the seizure is normal.
Recurrent febrile seizures occur in 30-50% of cases.
More than 90% of febrile seizures are generalized.
Acute respiratory illness are most commonly associated with febrile seizures.

364. Cause of neonatal hyperbilirubinemia ?

a) Inefficient erythropoiesis

b) RBC hemolysis

c) Immature liver enzyme

d) All of above

Correct Answer - D
Answer- D. All of above
Impaired bile flow → Obstructive jaundice, primary biliary cirrhosis, Neonatal cholestasis, e.g. Extrahepatic biliary atresia/neonate idiopathic hepatitis, Choledocal cyst, Sclerosing cholangitis, Caroli disease, Metabolic (Tyrosinemia, Wolman disease, Nieman pick disease, Galactosemia, Fructosemia).

365. Dosage of intravenous fluid for 2 month old child in diarrhoea with severe dehydration -

a) 100 ml/Kg in 6 hour

b) 50 ml/Kg in 6 hour

c) 75 ml/Kg in 6 hour

d) 80 ml/Kg in 6 hour

Correct Answer - A
Answer- A. 100 ml/Kg in 6 hour
So total fluid to be given 100 ml/Kg in 6 hour.

366. In Diapragmatic Hernia. Most common anomaly is seen in

a) Cardiovascular anomalies

b) Urinary tract

c) Craniofacial anomaly

d) Skull anomaly

Correct Answer - A
Answer- A. Cardiovascular anomalies
Diaphragmatic Hernia is defined as a communication between abdominal & thoracic cavities with or without abdominal contents in thorax.
Females are affected more than males.
More common on left side and is posterolateral.
Associated anomalies may be seen 30% of cases CNS lesions, esophageal atresia, omphalocele and CVS lesions. Most cases are sporadic.
Cardiac anomalis is MC anomalis.

367. Causes of mental retardation in congenital hypothyroidism is -

a) Decrease cerebral growth

b) Decrease myelination of CNS neuron

c) Decrease growth hormone by pitutary glands

d) Decreae production of neurotransmitters

Correct Answer - A
Answer- A. Decrease cerebral growth
is 'a' i.e., Decrease cerebral growth [Ref : Ghai 7h/e p. 481; Jornal of Americal Physiological Review]
Thyroid hormone has major effect on brain in utero & neonatal period, deficiency cause diminsh axonal growth, dendritic arborisation, delay proliferation & migration of granule cell so it decrease cerebral growth.

368. Mousy urine in a child due to defect in phenylalamine to

a) Tyrosine

b) Homogentisic acid

c) Phenyl acetate

d) Phenylpyruvate

Correct Answer - A
Answer- A. Tyrosine
Phenylketonuria:

- Autosomal recessive
- Deficiency of phenylalanine hydroxylase.
- Defect in conversion of phenylalanine to tyrosine.
- This leads to increase level of phenylalanine.
- This increase phenlylalanine converted into phenylpyruvate and phenyl acetate.
- This phenyl acetate gives mousy or musty odour in urine/body.

369. Most common site of extramedullary relapse of ALL in 6 year old is

a) Testes

b) Liver

c) Lung

d) None

Correct Answer - A
Answer- A. Testes
The common sites of relapse of ALL after complete remission are : Bone marrow (mc), CNS (2 mc) and testis.

370. Male pseudohermaphrodism most common cause -

a) Congenital adrenal hyperplasia

b) Adrenocortical tumor

c) Chromosomal abnormalities

d) Cytogenetic abnormalities

Correct Answer - D
Answer- D. Cytogenetic abnormalities
Most common cause of female pseudohermaphroditism - CAH due to 21 hydroxylase deficiency.
Most common cause of male pseudohermaphroditism - Gonadal dysgenesis and defect in androgen action.

371. Enzyme used as treatment for sickle cell anemia

a) Chymotrypsin

b) Glucose 6-phosphatase

c) Trypsin

d) None of above

Correct Answer - A
Answer- A. Chymotrypsin
Chymotrypsis used in Sickle cell disease.

372. XX baby presenting with penis & scrotum cause -

a) High level of testosterone in maternal blood

b) Klinfilter syndrome

c) Turner syndrome

d) None of above

Correct Answer - A

Answer- A. High level of testosterone in maternal blood

This is a case of female pseudohermaphroditism i.e. XX karyotype with virilized external genitalia.

Maternal androgen (testosterone) is the cause of this.

Female pseudohermaphroditism

- Genotype is XX. Internal gonad is ovary but external genitalia are virilized (male differentiation).
- Congenital adrenal hyperplasia (CAH) due to 21-hydroxylase deficiency is the commonest cause.
- Other causes are maternal virilizing tumor (arrhenoblastoma),maternal androgen administration, CAH due to 11-beta hydroxylase deficiency, fetal placental aromatase deficiency, and WNT-4 gene mutation.

373. Which of the fontanelle is the last to close?

a) Anterolateral

b) Anterior

c) Lateral

d) Occipital

Correct Answer - B
Ans. B. Anterior
The posterior fontanelle normally closes 2 to 3 months after birth
The sphenoidal fontanelle is the next to close around 6 months after birth
The mastoid fontanelle closes next from 6 to 18 months after birth;
The anterior fontanelle is generally the last to close between 18–24 months.

374. Which enzyme deficiency causesLesch–Nyhan syndrome ?

a) Hypoxanthine-guanine phosphoribosyltransferase (HGPRT)

b) Xanthine oxidase

c) Adenine phosphoribosyltransferase (APRT)

d) AMP deaminase

Correct Answer - A

Ans. A.Hypoxanthine-guanine phosphoribosyltransferase (HGPRT)

Lesch–Nyhan syndrome (LNS), also known as juvenile gout, is a rare inherited disorder caused by a deficiency of the enzyme hypoxanthine-guanine phosphoribosyltransferase (HGPRT), produced by mutations in the HPRT gene located on the X chromosome

375. Which vaccine is not include in indradhanush mission?

a) Tuberculosis

b) Measles

c) Japanese Encephalitis

d) Diphtheria

Correct Answer - C

Ans. C. Japanese Encephalitis

The Mission Indradhanush, depicting seven colours of the rainbow, targets to immunize all children against seven vaccine preventable diseases namely:

- Diphtheria
- Pertussis
- Tetanus
- Childhood Tuberculosis
- Polio
- Hepatitis B
- Measles.

376. Which among the following is the Most common cause for neonatal blindness?

a) Neisseria gonorrhoeae

b) Chlamydia trachomatis

c) Klebsiella

d) Enterobacter

Correct Answer - A

Ans. A. Neisseria gonorrhoeae

Ophthalmia neonatorum (ON) is defined as a purulent conjunctivitis occurring during the first four weeks of life.

The two most common causative agents are Neisseria gonorrhoeae and Chlamydia trachomatis, the former being of more concern here because of its propensity to cause blindness.

377. True hermaphroditism karyotype:

a) 45 X0 streaked gonads

b) 46 XX Ovotestis

c) 47 XY+9

d) 47 XX

Correct Answer - B
Ans. B.46XX Ovotestis
True hermaphrodite or ovotesticular disorder of sexual differentiation (OVO-DSD) is one of the rarest variety of all inter sex anomalies.
In about 90% of cases, patients have 46 XX karyotype.
Rarely, 46 XY/46 XX mosaicism may occur.

378. When can one diagnose acute respiratory distress in a child ?

a) Within 7 days of known clinical insult

b) Respiratory failure not fully explained

c) Left ventricular dysfunction

d) All of the above

Correct Answer - D

Ans: D. All of the above

Pediatric Critical Care Medicine 2015

Age	Exclude **patients with 1:m11-natal related lung disease**			
Iiming	**Within 7 days of known clinical Insult**			
origin of Edema	Respiratory failure not fully explained by cardiac failure or fluid overload Chest			
Chest Imaging	imaging findings of new infiltrate(siconsi[g]ent with acute pulmonary			
	Non invasive mechanical ventilation	lovas i ve mechanical ventilation-		
	PARRS (No severity gratification)	Mild	Moderate	Severe
Oxygenation	Full face-mask bi-level ventilation or CPAP z5 crn HA *a* **PF ratios 300 SF ratio 5 2E4 I**	4501**c8 Ss09.c7.51**	**EK 01 < 16 7.5 OSI <12.31**	**O1 t16 CiSt 1233**

Specia- l Populations

tandard Criteria above for age, timing, origin of edema

Cyanotic Heart Disease	and chest imaging with an acute deterioration In oxygenation not explained by underlying cardiac disease.
Chronic Lung Disease	standard Criteria above for age, timing, and origin of edema with chest imaging consistent with new infiltrate and acute deterioration in oxygenation from baseline which meet oxygenation criteria above_
Left Ventricular dysfunction	Standard Criteria for age, timing and origin of edema with chest imaging changes consistent with new infiltrate and acute deterioration in oxygenation which meet criteria above not explained by left ventricular dysfunction.

379. New born baby with heart rate less than 60 beats per minute can be resuscitated by all except

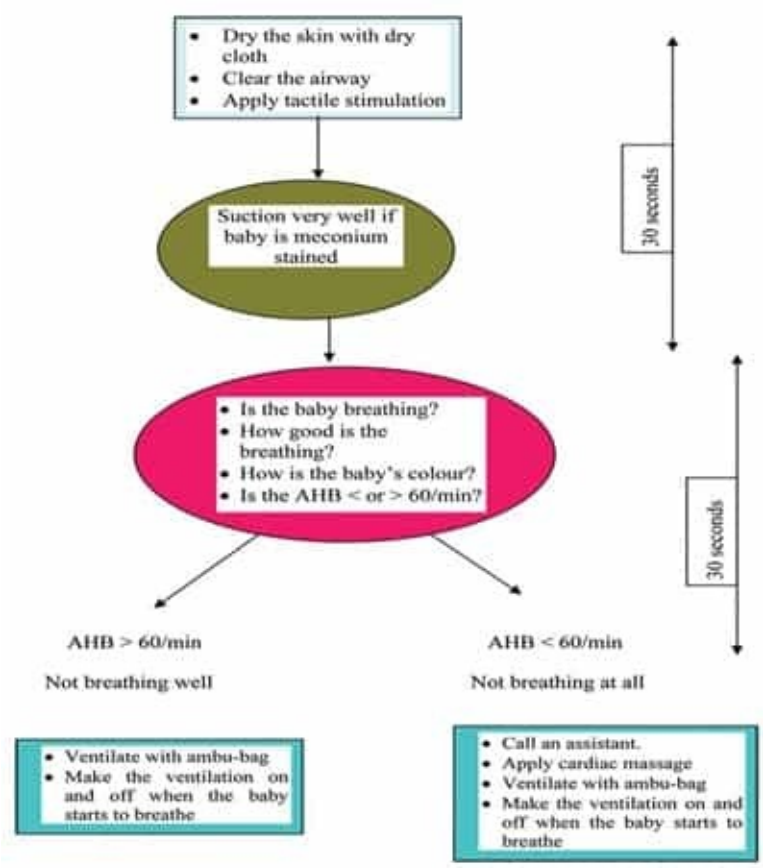
a) chest compression

b) oxygen therapy

c) tactile stimulation

d) slapping the back

Correct Answer - D
Ans: D.slapping the back
The first three s are indicated while slapping the back is not recommended in a newborn who has
Heart rate less than 60 beats per minute.


Dry the skin with dry cloth
Clear the airway
Apply tactile stimulation
Suction very well if baby is meconium stained
30 seconds
Is the baby breathing?
How good is the breathing?
How is the baby's colour?
Is the AHB < or > 60/min?
30 seconds
AHB > 60/min
Not breathing well
AHB < 60/min
Not breathing at all
Ventilate with ambu-bag
Make the ventilation on and off when the baby starts to breathe
Call an assistant.
Apply cardiac massage
Ventilate with ambu-bag
Make the ventilation on and off when the baby starts to breathe

380. Which condition is associated with Congenital adrenal hypoplasia?

a) Male pseudohermaphroditism

b) Female pseudohermaphroditism

c) True pseudohermaphroditism

d) Sequential pseudohermaphroditism

Correct Answer - B

Answer - B -

Congenital Adrenal Hyperplasia:

- This is the most common cause of androgenic excess in fetuses with female pseudohermaphroditism.
- The hyperplastic glands synthesize defective enzymes that cause impaired cortisol synthesis.
- This leads to excessive pituitary ACTH the secretion of the fetal adrenal glands with secretion of large amounts of cortisol precursors, including androgenic prehormones.
- These prehormones, for example, androstenedione, are converted to testosterone in fetal extra-adrenal tissues.

381. 1 yr child weighing 6 kg is suffering from Acute Gastroenteritis along with signs of sunken eyes & skin pinch going back to normal very rapidly. What will be your management?

a) RL infusion 120 ml in the first hour followed by 360 ml in the next 5 hours

b) RL INFUSION 180 ml in the first hour followed by 420 ml in the next 5 hours

c) RL INFUSION 180 ML IN the first hour followed by 480 ml in the next 5 hours

d) RL INFUSION 240 ml in the first hour followed by 360 ml in the next 5 hours

Correct Answer - B

Ans. B.RL INFUSION 180 ml in the first hour followed by 420 ml in the next 5 hours

Severe dehydration constitutes a medical emergency requiring immediate resuscitation with intravenous fluids.

Intravenous access should be obtained, and patients should be administered a bolus of 20-30 mL/kg lactated Ringer's (LR) or normal saline (NS).

If pulse, perfusion, and/or mental status do not improve, a second bolus should be administered.

After this, the patient should be given an infusion of 70 mL/kg LR or NS over 5 hours (children < 12 months) or 2.5 hours (older children).

If no peripheral veins are available, an intraosseous line should be placed. Serum electrolytes, bicarbonate, urea/creatinine, and

glucose levels should be sent.

382. Which parameter conclusively rules out malnutrition?

a) Edema

b) Lean body mass

c) Skinfold thickness

d) Normal ECF volume

Correct Answer - B

Ans. B. Lean body mass

Measuring weight and height is the most common way of assessing malnutrition in a given population. Such use of measurements of dimensions of the human body is known as anthropometry. Anthropometry is a widely used, inexpensive and noninvasive measure of the general nutritional status of an individual or a population group. The three commonly used anthropometric indices are :

- Weight-for-Age {WFA).
- Length-for-Age or Height-For-Age (HFA).
- Weight-for-Length or Weight-for-Height {WFH).

PEM reduces growth in children

- Energy expenditure in excess of consumption leads to metabolizing nutrition reserves in the form of stored body fat.
- Lean body mass in the form of muscle and even organ tissue will also be consumed if PEM persists. it serves as a reliable indicator for PEM
- Weight loss accompanies the initial stages of inadequate energy intake but, if prolonged, is followed by wasting, called in its severe clinical form, marasmus.
- In children, PEM delays or permanently stunts growth and increases

morbidity and mortality.
Ref. Park PSM ed. 24th Page no. 677

383. A 2 years baby with 6.7 kg, Hb%- 6 mg/dl total protein 3mg/dL, low albumin with distended stomach but no proteinuria. What will be the diagnosis?

a) Marasmus

b) Kwashiorkor

c) Indian childhood cirrhosis

d) None

Correct Answer - B

Ans. B. Kwashiorkor

Kwashiorkor is a form of severe acute malnutrition (SAM) characterized by edema and apathy.

- Edema is most likely to appear first on the feet and then in the lower legs. It can develop into generalized edema affecting the hands, arms, and face.
- Moon face
- Skin changes include depigmentation of skin, dermatoses, dark, cracked peeling patches (flaky paint dermatosis) with pale skin underneath that is easily infected.
- Hair is sparse, easily pulled out, and may turn reddish.
- Flag sign: alternating bands of hypopigmented and normal pigmented areas on the hair strand
- The liver is often enlarged with fat (fatty Liver).
- The children are miserable and apathetic and often refuse to eat.
- Muscle wasting and growth failure are seen.
- Villous atrophy of small intestine and diarrhea.

Kwashiorkor	Marasmus
It develops in children whose diets are deficient of protein.	It is due to deficiency of proteins and calories.
It occurs in children between 6 months and 3 years of age.	It is common in infants under 1 year of age.
Subcutaneous fat is preserved.	Subcutaneous fat is not preserved.
Oedema is present.	Oedema is absent
Enlarged fatty liver.	No fatty liver.
Ribs are not very prominent.	Ribs become very prominent.
Lethargic	Alert and irritable.
Muscle wasting mild or absent.	Severe muscle wasting
Poor appetite.	Voracious feeder.
The person suffering from Kwashiorkor needs adequate amounts of proteins.	The person suffering from Marasmus needs adequate amount of protein, fats and carbohydrates.

Nelson Textbook of Pediatrics 20th Edition Page:301

384. In RDS in a child, which cells are found defective?

a) Type 1 pneumocytes

b) Type 2 pneumocytes

c) Bronchial epithelium

d) None

Correct Answer - B
Ans. B. Type 2 pneumocytes
Type I cells form the alveolar wall while the Type II cells synthesize and secrete surfactant DPCC.
The defect in the biosynthesis of Dipalmitoylphosphatidylcholine (DPPC), also known as dipalmitoyl lecithin leads to Respiratory distress syndrome.
Ref. **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2880575/**

385. Cause of greenish-black stool in a neonate -

a) Meconium

b) Biliverdin

c) Bilirubin

d) Urochrome

Correct Answer - B
Ans. B. Biliverdin
Fetal bowel contents consist of various products of secretion, such as glycerophospholipids from the lung, desquamated fetal cells, lanugo, scalp hair, and vernix. It also contains undigested debris from the swallowed amnionic fluid. The dark greenish-black is caused by pigments, especially biliverdin.
Ref. Williams Obstetrics Ed. 24th Page no. 141

386. A term baby on breastfeeding with bilirubin 14mg/dL which of the following is true?

a) Exchange transfusion

b) Continue to breastfeed

c) Phototherapy

d) None

Correct Answer - B

Ans. B. Continue to breastfeed

Compared with formula-fed newborns, breastfed infants are three to six times more likely to experience moderate jaundice (total serum bilirubin level above 12 mg per dL) or severe jaundice (total serum bilirubin level above 15 mg per dL.

In a breastfed newborn with early-onset hyperbilirubinemia, the frequency of feedings needs to be increased to more than 10 per day. If the infant has a decline in weight gain, delayed stooling, and continued poor caloric intake, formula supplementation may be necessary, but breastfeeding should be continued to maintain breast milk production.

Phototherapy usually not recommended when the total serum bilirubin level is below 15 mg per dL.

Ref: **https://www.aafp.org/afp/2002/0215/p599.html**