1. **A child finds difficulty to spell and read, otherwise his IQ is normal, interacts well with parents and friends. Vision is normal. Most probable diagnosis of this condition is?**

a) ADHD

b) Dyslexia

c) Autism

d) Asperger syndrome

Correct Answer - B
Dyslexia REF: Kaplan and sadock 10' ed p. 1162
Reading Disorder:
Reading disorder is characterized by an impaired ability to recognize words, slow and inaccurate reading, and poor comprehension. The term developmental alexia was accepted and defined as a developmental deficit in the recognition of printed symbols. This term was simplified by adopting the term dyslexia in the 1960s. *Dyslexia* was used extensively for many years to describe a reading disability syndrome that often included speech and language deficits and right-left confusion. Reading disorder is frequently accompanied by disabilities in other academic skills, and the term dyslexia has been replaced by broader terms, such as learning disorder.
Differential diagnosis:

- A recent study indicates that children with reading disorder consistently present difficulties with linguistic abilities, whereas children with ADHD do not.

- Reading disorder must be differentiated from mental retardation syndromes in which reading, along with other skills, is below the achievement expected for a child's chronological age. Intellectual testing helps to differentiate global deficits from more specific reading difficulties.

2. Generalized 3-4 Hz spike and slow wave complexes on EEG are seen in?

a) Generalized tonic clonic seizure

b) Absent seizure

c) Temporal lobe epilepsy Simple partial seizures

d) Juvenile myoclonic epilepsy

Correct Answer - D
Juvenile myoclonic epilepsy REF: Clinical Electroencephalography by Misra Page 188
"In Juvenile myoclonic epilepsy the background activity of EEG is normal. Interictal EEG reveals generalised 4-6 Hz polyspikes and slow wave complexes"
In Generalized tonic clonic seizure EEG shows a normal background with generalized epileptiform discharges such as spike or polyspike wave complexes at 2.5 to 4 Hz.
On the EEG, typical absence seizures are associated with generalized, bilaterally synchronous, frontally predominant 3 Hz spike-and-wave discharges that begin suddenly from a normal background and end abruptly, without postictal slowing

3. Ductus dependent blood flow is required for all of these congenital heart diseases except

a) Persistent truncus arteriosus

b) Hypoplastic left heart syndrome

c) Pulmonary stenosis

d) TGA with intact ventricular septum

Correct Answer - A

Persistent truncus arteriosus *[ReP V. Mohan Reddy. Cardiac Surgery for Premature and Low Birth Weight Neonates, Pediatric Cardiac Surgery Annual of the Seminars in Thoracic and Cardiovascular Surgery 2003; 4; 271-76]*

- Congenital heart disease in the newborn can be broadly categorized by the relationship between the patient's cardiac defect and the patent ductus arteriosus and this categorization yields four distinct groups.
- *First are newborns dependent on a patent ductus arteriosus (PDA) for pulmonary blood flow.*
- *Second are newborns dependent on the PDA for systemic blood flow.*
- *Third are those dependent on the patent ductus for proper mixing of oxygenated blood*
- *Fourthly are neonates with a non- ductal dependent circulation.*
- *For the ductal dependent group, "intravenous prostaglandin" (E-1) is used as necessary to maintain ductal patency and is the single most important step in supporting these patients to diagnosis and definitive therapy.*

- *Nevertheless, all newborns ductal dependent for systemic or pulmonary blood flow require an intervention, surgical or cardiologic to eliminate ductal dependence prior to discharge.*

1. *Pulmonary flow ductal dependence*

- *Newborns with congenital heart disease who are dependent on the patency of their ductus for pubnonary blood .flow present with varying degrees of cyanosis.*
- Critical Pulmonary Valve Stenosis with Intact Ventricular Septum
- Tricuspid AtresiaQ
- *Tetralogy of Fallote*

2. *Systemic flow ductal dependence*

- *These newborns are dependent on their ducats arteriosus for systemic blood flow and unlike the babies who are pulmonary flow dependent, these newborns present with severely decreased cardiac output.*
- This decreased systemic ˙flow is characterized by pallor, diminished peripheral pulses, low urine output, cool extremities and varying degrees of metabolic acidosis.

Included are newborns born with left ventricular outflow tract obstruction at various levels.

Congenital Valvular Aortic Stenosis

Coarctation of the Aorta

- *Interruptued Aortic Arch*

Hypoplastic Left Heart Syndrome (HLHS)

3. *Oxygenation ductal dependence*

- *These are babies who are born with congenital heart disease that requires a patent ductus ˛for adequate mixing of saturated and desaturated blood.*
- Transposition of great arteries

4. *Ductal independence*

-These are neonates who are not dependent on a patent ductus but still require urgent operation

- *Total anomalous pulmonary venous return (TAPVR)*
- *Truncus Arteriosus*
- *Anomalous origin of the left main coronary artery from the pulmonary artery.*

4. A mother brought her 7 year old daughter complaining of breast development. Thelarche occurs normally at?

a) 7-11 years

b) 8-13 years

c) 11-13 years

d) 12-14 years

Correct Answer - B

- Breast development, termed thelarche, begins in most girls between the ages of 8 and 13 years. Thelarche prior to age 8 or lack of breast development by age 13 is considered abnormal and should be investigated.
- Pubertal changes before the age of 8 years in girls and 9 years in boys are considered as precocious.
- Although the *most common cause of precocious puberty in girls is idiopathic,* it is essential to ensure close long-term follow-up of these patients to ascertain that there is no serious underlying pathology, such as tumors of the ovary or CNS.
- Only 1-2% patients with precocious puberty have an estrogen-producing ovarian tumor as the causative factor.

Ref: Hoffman B.L., Schorge J.O., Schaffer J.I., Halvorson L.M., Bradshaw K.D., Cunningham F.G., Calver L.E. (2012). Chapter 14. Pediatric Gynecology. In B.L. Hoffman, J.O. Schorge, J.I. Schaffer, L.M. Halvorson, K.D. Bradshaw, F.G. Cunningham, L.E. Calver (Eds), Williams Gynecology, 2e.

5. Microscopy of a specimen shows “pawn ball megakaryocytes”. This patient may have:

a) Myelodysplastic syndrome

b) Idiopathic thrombocytopenic purpura

c) Thrombotic thrombocytopenic purpura

d) Chloramphenicol toxicity

Correct Answer - A

Myelodysplastic syndromes (MDS) are a group of clonal stem cell disorders characterized by maturation defects associated with ineffective erythropoiesis and a high risk of transformation to AML. The most characteristic finding is disordered differentiating affecting all three lineages i.e., erythroid, myeloid, and megakaryocytic.

- Erythroid lineage effects:
  - Ringed sideroblasts,that is erythroblasts with iron-laden mitochondria visible as perinuclear granules on Prussian blue stain
  - Megaloblastoid maturation, resembling that seen in vitamin B12 or folate deficiency
  - Nuclear budding abnormalities, producing misshapen nuclei
- Granulocyte lineage effects:
  - Neutrophils with decreased numbers of secondary granules, toxic granulations, or Dohle bodies
  - Pseudo-Pelger-Huet cells (neutrophils with only two nuclear lobes)
  - Myeloblasts may be increased but account for less than 20% of overall marrow cellularity
- Megakaryocytic lineage effects:
  - Megakaryocytes with single nuclear lobes or multiple separate nuclei (“**pawn ball**” **megakaryocytes**

Ref: Pocket Companion to Robbins & Cotran Pathologic Basis of Disease By Richard Mitchell, Vinay Kumar, Nelson Fausto, Abul K. Abbas, Jon C. Aster, 8th edition, Page 334-335.

6. **A child is diagnosed to have atypical pneumonia.**

Assertion: Diagnosis can be made by demonstration of IgM antibody by ELISA during acute stage.

Reason: It is useful for detecting viruses which are the most common etiologic agent of atypical pneumonia.

a) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion

b) Both Assertion and Reason are true, and Reason is not the correct explanation for Assertion

c) Assertion is true, but Reason is false

d) Assertion is false, but Reason is true

Correct Answer - C

Primary atypical pneumonia is caused by Mycoplasma pneumoniae.
In atypical pneumonia cold agglutinins are elevated in ? to ¾ of the patients.
Diagnosis can be made rapidly by demonstrating IgM antibody by ELISA during the acute stage and by IgG antibodies which are demonstrable after 1 week of illness.

Ref: Essentials of Paediatrics By O P Ghai, 6th Edition, Page 350.

7. Microcephaly, blue eyes, fair skin, and mental retardation in a 4 year old girl with a positive ferric chloride test is indicative of which of the following?

a) Phenylketonuria (PKU)

b) Homocystinuria

c) Tyrosinosis

d) Alkaptonuria

Correct Answer - A

A child presenting with microcephaly blue eyes, fair skin, mental retardation and a positive ferric chloride test typically describes a patient with Phenylketonuria.

Ref: Textbook of Biochemistry for Medical Students, By D. M. Vasudevan.M.D, DM Vasudevan, Page 208; Harrison's – 16th Edition, Page 2333

8. **Which among the following is the most common thyroid malignancy in children?**

a) Papillary carcinoma

b) Follicular carcinoma

c) Medullary carcinoma

d) Thyroid lymphoma

Correct Answer - A
Majority of thyroid carcinomas of childhood are of differentiated type, with *papillary thyroid carcinoma being the most common malignant tumor* in this age group, followed by follicular carcinomas.

Medullary thyroid cancer which constitutes 5% of pediatric thyroid malignancies, is usually associated with multiple endocrine neoplasia type 2(MEN2) in the pediatric population.

Primary thyroid lymphomaor neoplasia metastatic to the thyroid gland is uncommon in adults and is extremely rare in childhood.

9. **The most important cause of under 5 mortality worldwide is:**

a) Diarrhoea

b) Malnutrition

c) Respiratory infections

d) Trauma

Correct Answer - C

Lower respiratory tract infections are the leading cause of morbidity worldwide between age group of 1 to 5.
Other causes are, diarrheal illness, measles, malaria, human immunodeficiency virus infection/acquired immunodeficiency syndrome. At

Ref: Goldman R.D., Meckler G.D. (2011). Chapter 110. Emergency Care of Children. In J.E. Tintinalli, J.S. Stapczynski, D.M. Cline, O.J. Ma, R.K. Cydulka, G.D. Meckler (Eds), *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*, 7e.

10. 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*

11. An 18 month old infant can do A/E -

a) Climbing upstairs

b) Can follows mother's activitiesCan turn 2-3 pages at a time

c) Can say 2-3 words

d) Can make tower of 8 cubes

Correct Answer - A
Ans. is 'a' i.e., Climbing upstairs
A child walks up and downstairs with one step at a time by 2 years.
o A child can mimic the action carried out by the mother at home (mimicry) by 1 year of age.
o A child can turn 2 or 3 pages of a book at time by 13 months.
o An 18 months old child can use 10 words with meaning.
o An 18 months old child can build a tower of 4 cubes (not 8 cubes).

12. Which of the following is true about eruption of teeth -

a) Premolar appear in primary dentition

b) Incisors appear first in secondary dentition

c) 3rd molar is last to develop

d) b and c

Correct Answer - D

Ans. is 'b' i.e., Incisors appear first in secondary dentition; 'c' i.e., 3rd molar is last to develop

Dental development includes mineralization (calcification), eruption and exfoliation (shedding).

Wisdom teeth or third molars (M3s) are the last, most posteriorly placed permanent teeth to erupt. They usually erupt into the mouth between 17 and 25 years of age.

13. At what age do first permanent teeth appear ?

a) 5 years

b) 6 years

c) 7 years

d) 8 years

Correct Answer - B
Ans. is 'b' i.e., 6 years
o First primary (milk) tooth erupts at 6 months.
o First secondary (permanent) tooth appear at 6 year of age.

14. A child can ride a tricycle, copy a circle and knows age sex by the age of -

a) 30 months

b) 42 months

c) 36 months

d) 48 months

Correct Answer - C
Ans. is 'c' i.e., 36 months

15. 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

16. Which one of the following activities cannot be formed by a 7 month old infant-

a) Pivot

b) Cruise

c) Transfer objects

d) Enjoy mirror

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

17. Gender from external genitalia of foetus becomes clearly distinguished by -

a) 10 weeks

b) 16 weeks

c) 12 weeks

d) 20 weeks

Correct Answer - A
Ans. is 'a' i.e., 10 weeks
External genitals are distinguishable by 10th week of fetal life.

18. Which of the following X-ray should be advised for age determination between 1-13 years of age -

a) Shoulder

b) Wrist

c) Elbow

d) Iliac bones

Correct Answer - B
Ans is 'b' i.e., Wrist
Radiograph used to determine skeletal age
o 3-9 months --> Shoulder
o 1-13 years —> Hand and wrist
o 12-14 years —> Elbow and hip

19. Not seen in kwashiorkor -

a) Apathy

b) Flaky paint dermatosis

c) Poor appetite

d) Increased albumin

Correct Answer - D
Ans. is 'd' i.e., Increased albumin
o Albumin level is low in kwashiorkor, which results in generalized edema.
o Other options are true regarding kwashiorkor.

20. Breast milk at room temperature stored for?

a) 4 hrs

b) 8 hrs

c) 12 hrs

d) 24 hrs

Correct Answer - B
Ans. is 'b' i.e., 8 hrs

21. 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

22. Abnormalities of copper metabolism are implicated in the pathogenesis of all the following except *?*

a) Wilson's disease

b) Monkes' Kinky-hair syndrome

c) Indian childhood cirrhosis

d) Keshan disease

Correct Answer - D
Ans. is 'd' i.e., Keshan disease
Keshan disease is a disorder of selenium metabolism.
o Following diseases are related to copper metabolism :-
i) Wilson's disease
ii) Menkes kinky hair syndrome
Indian childhood cirrhosis (increased hepatic, urinary and serum copper concentration are characteristic of ICC).

23. Rett's syndrome occurs due to deficiency of *?*

a) Niacin

b) Biotin

c) Carotene

d) Vit D

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

24. A baby is born with meconium stained liquor which of the following is taken account of in terming a baby vigorous except -

a) Tone

b) Colour

c) Respiration

d) All

Correct Answer - B
Ans. is 'b' i.e., Colour
Resuscitation of neonate born through meconium-stained liquer (MSL)
o When baby passes meconium in utero, there is a chance that the mecomium will be aspirated into infant's mouth and potentially into the trachea and lungs.
o Appropriate steps must be taken immediately after delivery to reduce the risk of serious consequences resulting from aspiration of meconium.
o *Intrapartum nasopharyngeal suctioning just after the delivery of head is no longer recommended as it does not reduce the risk of meconium aspiration syndrome and, on rare occasions, may cause nasopharyngeal trauma or a cardiac arrhythmia.*
The first step after delivery is to identify whether the newborn is vigrous or non-vigrous : ?
A) **Vigrous newborn**
A newborn is classified as vigrous, if he has all the three signs are present : *?*

1) Strong respiratory effort
2) Good muscle tone
3) Heart rate greater than 100

LI The vigrous child does not require any tracheal suctioning and the usual initial steps of resuscitation are provided, i.e., provide warmith, positioning, suctioning of mouth and nose (not tracheal suctioning), Dry, stimulate and 02 if necessary.

B) Non-vigrous newborn

If any of the above three signs is present, the newborn is classified as non-vigrous.

For non-vigrous child, the *initial steps are modified : Place the baby under radiant warmer and postpone suctioning to prevent stimulation of posterior pharyngeal wall that can cause bradycardia.*

ii) Residual meconium in the mouth and posterior pharynx should be removed by suctioning under direct vision using a laryngoscope.

iii) The trachea should then be intubated and mechonium suctioned from the lower airway. Tracheal suctioning is best done by applying suction directly to the endotracheal tube.

After providing initial steps, the further management is same as with resucitation for other conditions (See previous explanation).

25. Fetal alcohol syndrome is characterized by all except?

a) Microcephaly

b) Low intelligence

c) Large proportionate body

d) Septal defects of heart

Correct Answer - C
Ans. is 'c' i.e., Large proportionate body
Fetal alcohol syndrome
High level of alcohol ingestion in pregnancy can cause damage to fetus, known as *fetal alcohol syndrome.*
o The harmful effects may be *due to alcohol itself or due to one of its breakdown products.* Some evidence suggests that alcohol may *impair placental transfer of essential amino acids and zinc,* both necessary for protein synthesis, which may account for IUGR.
o Characterististics of fetal alcohol syndrome include : ***?***
1) ***1UGR*** (not large proportionate body)
2) *Microcephaly*
3) *Congenital heart defects (ASD, VSD)*
4) *Mental retardation*
5) Facial abnormalities ---> Short palpebral fissures, epicanthal folds, maxillary hypoplasia, micrognathia, low set ears, smooth philthrum, thin smooth upper lip.
6) Minor joint anomalies
7) Hyperkinetic movements

26. Which one of the following is true of Transient Tachypnea of Newborn (TTNB) -

a) It is the commonest respiratory disorder caused by absence of surfactant

b) In premature babies, it is often fatal

c) Onset of respiratory distress is immediately after birth and it rarely lasts beyond 48 hrs

d) It often leads to chronic lung disease

Correct Answer - C
Ans. is 'c' i.e., Onset of respiratory distress is immediately after birth and it rarely lasts beyond 48 hrs

27. Which of the following statements is/are false about ostium secundum ASD -

a) Fixed splitting of 2nd heart sound

b) Narrow splitting of 2nd heart sound

c) Lt axis deviation in ECG

d) b and c

Correct Answer - D
Ans. is 'b' i.e., Narrow splitting of 2nd heart sound; 'c' i.e., Lt axis deviation in ECG
The primitive atrium is divided into left and right atria by *interatrial septum* which is formed by *fusion of septum primum and septum secundum.*
o In ASD S2 is fixed and wide split (not narrow split)
o Ostium secundum type of ASD is associated with Right axis deviation.
o Because the pressure difference between two atria is small, blood passes at a narrow pressure difference ---> No shunt murmur.

28. The following statements are true of patent ductus arteriosus(PDA) except -

a) Spontaneous closure occurs in some term infants

b) Pulmonary hypertenison develops

c) Bacterial endocarditis is more frequent with small PDA

d) Recurrent chest infection and congestive failure may develop

Correct Answer - A

Ans. is 'a' i.e., i.e., Spontaneous closure occurs in some term infants

Spontaneous closure of PDA

1) In *premature infants*

In premature infants spontaneous closure of PDA may occur because in these infants PDA is due to unresponsiveness to oxygen and there is no structural abnormality.

2)In *Full term infants*

Unlike that in premature infants, spontaneous closure of a PDA does not usually occur in full term infants.

This is because the PDA in **term** infants results from a structural abnormality of the ductal smooth muscle.

Clinical manifestations of PDA

o Patient may be asymptomatic

- Symptoms develop early and *CHF may develop at 6 to 8th weeks of age.*

o Common symptoms --> Dysnea on exertion, palpitation and frequent *chest infections.*

Signs

o Tachypnea & Tachycardia

o Bounding pulse with wide pulse pressure (with elevated systolic and lower diastolic pressure). o Hyperkinetic cardiac impulse

- Systolic or continuous thrill.
  o Accentuated Si
  o Narrow or paradoxical split of S, (But it may be masked by continuous murmur since maximum intensity of continous murmur occurs at S,).
- *Continous (machinery) murmur* —> Murmur starts after S_i and reaches the peak at S_2. It then diminishes and is audible only during a part of the diastole. *Murmur is best heard at second left intercostal space and is also heard below left clavicle.*
- **S_3** may occur at apex followed by a delayed diastolic murmur.

29. A6 month old child with Tetralogy of Fallot develops cyanotic spell initiated by crying. Which one of the following drugs you would like to avoid-

a) Sodium bicarbonate

b) Propranolol

c) Phenylephrine

d) Isoprenaline

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

- In Tetralogy of Fallot there is right outflow obstruction due to pulmonary stenosis with supravalvular pulmonary artery obstruction. *In case of severe obstruction, the right ventricular pressure becomes greater than the left ventricular presence and the deoxygenated blood starts moving to the left ventricle resulting in severe cyanosis and erythrocytosis.*

30. 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. Dysnea 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 obustruction at tricuspid valve like tricuspid stenosis.
- Both systolic and diastolic murmur produced at the tricuspid valve have scratchy character like pericardial friction rib.

31. An 8-month-old female child presented to emergency with a heart rate of 220/minute and features of congestive heart failure. Her heart rate comes down to normal after administering intravenous adenosine. What is the most likely diagnosis?

a) Atrial fibrillation

b) Atrial flutter

c) Paroxysmal supraventricular tachycardia

d) Ventricular tachycardia

Correct Answer - C
Ans. is 'c' i.e., Paroxysmal supraventricular tachycardia
o Adenosine is the DOS for PSVT.

32. A child is brought to the paediatric OPD with fever of 24 hours duration. History reveals 3 episodes of chest infection and passage of foul smelling stools. The most probable diagnosis is-

a) Cystic Fibrosis

b) Maple Syrup urine Disease

c) Bilirubin Congugation Defect

d) Criggler Najar Syndrome

Correct Answer - A
Ans. is 'a' i.e., Cystic Fibrosis
o *Recurrent chest infection in a child with evidence of exocrine pancreatic insufficiency (bulky, foul smelling stool) suggest a diagnosis of cystic fibrosis.*

33.

Oesophageal atresia may occur as a part of VACTERAL group of anomalies. What does `TE' stand for?

a) Tetralogy of Fallot

b) Thoracic empyema

c) Tracheo-oesophageal fistula

d) Talipes equinovarus

Correct Answer - C
Ans. is 'c' i.e., Tracheo-oesophageal fistula
VACTERL association is a **disorder** that affects many body systems.
VACTERL stands for :
V:Vertebral defects
A:Anal atresia
C:Cardiac defects
TE:Tracheo-Esophageal fistula
R:Renal anomalies,
L:Limb abnormalities.
People diagnosed with**VACTERL association** typically have at least three of these characteristic features.

34. Post-streptococcal glomerulonephritis is associated with -

a) Follows skin and throat infection

b) Antibiotic treatment induces remission

c) Is a cause of chronic renal failure in majority of children

d) All

Correct Answer - A

Ans. is `a' i.e., Follows skin and throat infection

Post streptococcal glomerulonephritis

o PSGN appears 1 to 4 weeks after a streptococcal infection of pharynx or skin (impetigo).

- It is caused by certain *nephritogenic* serotypes of group A f3-hemolytic streptococcus (not by all serotypes). o The lesions are caused by immune complex deposition and activation of complement —> *complement level decreases.*
- It occurs most frequently in children *6 to 10 years* of age.

o Clinically child presents with *acute nephritic syndrome* ?

i) Hematuria iii) Azotemia v) Hypertension

ii) Oliguric acute renal failure iv) Proteinuria

vi) Edema

o *PSGN causes acute renal failure, but not chronic renal failure -> more than 95% of affected children eventually recover totally with conservative therapy.*

Treatment

- Management is directed at treating the acute effects of renal insufficiency and hypertension.

o *Although a 10 day course of systemic antibiotic therapy with*

penicillin is recommended to limit the spread of nephritogeric organisms, antibiotic therapy does not affect the natural history of glomerulonephritis.

35. 12 years old Shyam presented with gross hematuria with 80% dysmorphic RBC's 2 days after a attack of upper respiratory tract infection diagnosis is *?*

a) Microangiopathic thrombotic anaemia

b) IgA Nephropathy

c) PSGN

d) H.S. purpura

Correct Answer - B
Ans. is 'b' i.e., IgA Nephropathy
o The patient is having glomerulo nephritis *(gross hematuria* and *dysmorphic· RBC's)* 2 days after upper respiratory tract infection.
o Three conditions can manifest like this —> *IgA nephropathy Post streptococcal glomerulonephritis, H.S. Purpura.*

36. The maximum urinary concentration capacity in full term neonates is -

a) > 1000 mOsm/litre

b) 350 - 450 mOsm/litre

c) 900 - 1000 mOsm/litre

d) 600 - 700 mOsm/litre

Correct Answer - D
Ans. is 'd' i.e., 600-700 mOsm/Litre
o A full term infant can concentrate his urine to a maximum of 700-800 mOsm/kg.
o An older child can concentrate 1200-1400 mOsm/kg.
o A newborn can dilute his urine to a minimum of 50 mOsm/kg much like an older child.

37. 4 year old male child had febrile seizures, best prophylaxis -

a) Paracetamol 6 hourly

b) Paracetamol & diazepam

c) Diazepam

d) Phenobarbitone

Correct Answer - C
Ans. is 'c' i.e., Diazepam
Prophylaxis in febrile seizures
Prophylactic anticonvulsants are not given routinely in febrile seizures. They are required when ?
i) Febrile seizure is prolonged or complicated
ii) Medical reassurance fails to relieve family anxiety.
Prophylaxis may be continuous or intermittent
Intermittent prophylaxis
o It is currently the desirable form of therapy
o It is used during episodes of fever
o Indicated during first three days of fever.
o Drugs that are used are - Diazepam and other benzodiazepenes (these drugs are used because they attain desired levels quickly)
Diazepam is given oral or rectal.
Continuous prophylaxis - o It is used when
Intermittent therapy has failed *Recurrent atypical seizures*
Central nervous system disease *Family history of epilepsy o* Drugs used are —> *Sodium valproate or phenobarbitone.*
Note - Carbamazepine and phenytoin are ineffective for prevention of recurrence.

38. Which of the following statements is false about Sacral Meningomyelocele -

a) Spasticity of the lower limbs is seen

b) Hydrocephalus is seen

c) Bladder incontinence may be seen

d) Lax anal sphincter is present

Correct Answer - A
Ans. is 'a' i.e., Spasticity of the Lower Limbs is seen
Meningomvelocele
o Meningomyelocele is a condition where normally developed neural tissue along with its covering protrudes in the midline through a defect in mesodermal elements.
o The neural tissue may be the spinal cord or the Cauda equina.
o *In a sacral meningomyelocele, however, the neural tissue involved would be the cauda equina, the involvement of which would results in a lower neuron picture and not an upper motor neuron picture (ie. as in the involvement of spinal cord). Spasticity would thus not be a feature of Sacral Meningomyelocele. Spasticity is a feature of U.M.N. lesion and would thus be a feature of meningomyelocele occurring higher up, in the lumbar as dorsal region, where neural tissue involvement is that of spinal cord. (Note: Cauda equina are nothing but spinal nerves which have left the spinal cord, but yet have to leave the vertebral column, ie. they are lower motor neurons)*

- *Bladder & Bowel incontinence* may be seen.
- *Hydrocephalus* is an important and frequently associated finding with meningomyelocele.

39. Commonest location for craniopharyngioma is -

a) Intrasellar

b) Suprasellar

c) Intraventricular

d) Intracerebral

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

40. IQ (Intelligence quotient) of a child means?

a) The creative effciency of child

b) The capability of the child to perfrom intellectual tasks in relation to other children of same age

c) The efficiency of memory of child

d) Quantification of the learning ability of child

Correct Answer - B
Ans. is 'b' i.e., The capability of the child to perfrom intellectual tasks in relation to other children of same age.

41. All are liver glycogenosis except?

a) Von Girke disease

b) Hers disease

c) Type IIi glycogenosis

d) Pompes disease

Correct Answer - D
Ans. is 'd' i.e., Pompes disease

42. The most common presentation of a child with Wilms' tumor is *?*

a) As asymptomatic abdominal mass

b) Haematuria

c) Hypertension

d) Hemoptysis due to pulmonary secondary

Correct Answer - A
Ans. is 'a' i.e., As asymptomatic abdominal mass
Presentation of Wilm's tumor :
o Asymptomatic abdominal mass (most common)
o Heamaturia (10-25%)
o Abdominal pain (30%) o
Fever (20%)
o Hypertension (25%) o
Anorexia and vomiting

43. Causes of female pseudohermaphrodism ?

a) 17-alpha hydroxylase deficiency

b) 21-alpha hydroxylase deficiency

c) Mixed gonadal dysgenesis

d) All of the above

Correct Answer - B
Ans. is 'b' i.e., 21-alpha hydroxylase deficiency
Ambiguous genitalia (Hermaphroditism)
Ambiguous genitalia are defined as discrepancy between the external genitals and internal gonads. o They can be categorized : ?
1. Female pseudohermaphroditism
2. Male pseudohermaphroditism
3. True hermaphroditism

Female pseudohermaphroditism.

Gentotype is XX
Gonads are ovaries
External genitalia are virilized (male differentiation).
As there is no mullarian inhibiting factor, mullarian duct develops into uterus tubes and ovary. But due to presence of androgen external genitalia are virilized.

Causes are:

i) Maternal virilizing tumor -9 Arrhenoblastoma
ii) 21 hydroxylase deficiency } Congenital adrenal hyperplasia
iii) 11 beta hydroxylase deficiency
iv) Maternal medications with androgen.

44. All of following may be causes of precocious puberty in girls except -

a) Hypothalamic hamartoma

b) Mc Cuone Albright syndrome

c) Granulosa cell tumor of human ovary

d) Congential 21-a hydroxylase deficiency

Correct Answer - D
Ans. is 'd' i.e., Congenital 21-hydroxylase
o Congenital 21 hydroxylase deficiency causes precocious puberty in male due to excess of androgens.
o In female, it results in virilization.

45. A 3 year old boy is detected to have bilateral renal calculi. Metabolic evaluation confirms the presence of marked hypercalciuria with normal blood levels of calcium, magnesium, phosphate, Uric acid and creatinine. A diagnosis of idiopathic hypercalciuria is made. The dietary management includes all, except -

a) Increased water intake

b) Low sodium diet

c) Reduced calcium intake

d) Avoid meat proteins

Correct Answer - C
Ans. is 'c' i.e., Reduced calcium intake
Idiopathic hypercalciuria
o This is inherited as *autosomal dominant* pattern.
o It is characterized by -
i) Recurrent gross hematuria *iii) Dysuria*
v) In the absence of stone formation
ii) Persistent microscopic hematuria *iv) Abdominal pain*
o If left untreated, hypercalciuria leads to *nephrolithiasis* in approximately 15% of cases.
Diagnosis
o Hypercalciuria is diagnosed by a *24 hr urinary calcium excretion exceeding 4 mg/kg.*

o Screening test *urinary calcium to creatinine concentration ratio > 0.2* (note in normal infant, younger than 7 months of age it may be as high as 0.8)

Treatment

o *Oral thiazide -3* stimulates calcium reabsortion in PCT & DCT.

o *Potassium citrate*

o *Sodium restriction* because calcium excretion parallels sodium excretion.

o *Dietary calcium restriction is not recommended* because of the obligate requirment for growth.

46. All of the following are features of systemic Juvenile Rheumatoid Arthritis except-

a) Uveitis

b) Rash

c) Fever

d) Hepatosplenomegaly

Correct Answer - A
Ans. is 'a' i.e., Uveitis
o The eye manifestation are seen in Pauciarticular and Polyarticular JRA *but not in systemic JRA.*

47. A- 3 month old female infant weight 4 kg and is suffering from loose motions. On examiantion she is found to be suffering from some dehydration.The amount of ORS to be given to her in the first four hour will be -

a) *100 ml*

b) 300 ml

c) 500 ml

d) 600 ml

Correct Answer - B

Ans. is 'b' i.e., 300 ml

<u>Guidlines for treating patients with some dehydration (but not severe dehydration) treatment plan B</u>

o *Basic is to give 75 ml/kg of ORS in the first 4 hours.*

Weight	*ORS solution to give in first 4 hours*
< 5 kg	200-400 ml
5-8 kg	400-600 ml
8-11 kg	600-800m1
11-16 kg	800- 1200 ml
16-30 kg	1200-2200 ml
>30 kg	> 2200 ml

48. In Pediatric advanced life support, intraosseous access for drug/fluid administration is recommended for pediatric age of-

a) < 1 year age

b) < 5 years age

c) < 6 years age

d) Any age

Correct Answer - C
Ans. is 'c' i.e., < 6yrs of age
"If I.V. route is unsuccessful, introasseus access in the proximal tibia of an uninjured leg is the preferred alternative for children younger than 6 yrs. In children older than 6 yrs a percutaneous femoral venous line should be attempted.

49. Which one of the following is a distinguishing feature of Edward's syndrome-

a) Hypotonia

b) Hypotelorism

c) Holoprosencephaly

d) Rocker bottom feet

Correct Answer - D
Ans. is 'd' i.e., Rocker bottom feet

- Low birth weight
- Closed fists with index finger overlapping the 3rd Digit and the 5'^{h} digit overlaping the 4th.
- Narrow hips with limited abduction
- Short sternum
- Rocker bottom feet *sencephaly*
- Microcephaly
- Prominent occiput
- Micrognathia
- Cardiac and renal malformations
- Mental retardation
- 15% cases are lethal in 1st year

50. The following is not a feature of pierre – Robin syndrome -

a) Hearing defect

b) Coloboma Iris

c) Respiratory distress

d) Mandibular hypoplasia

Correct Answer - B
Ans. is 'b' i.e., Cloboma iris
Pierre Robin syndrome consists of -

- Micrognatnia
- Fore shortened floor of mouth
- CHDs
- Cleft palate or high arched palate
- Mandibular hypoplasia (Micrognathia)
- Respiratory obstruction
- Normal size tongue

51. A child presents with a history of scorpion sting.
He is having increased sweating. What is the next best step -

a) Lytic cocktail

b) Atropine

c) Antevenom

d) Local xylocaine infiltration

Correct Answer - A
Ans. is 'a' i.e., Lytic cocktail
o Lytic cocktail contains promethazine + pethidine + chlorpromazine.
o Lytic cocktail therapy alone or in combination with steroids is useful in the treatment of peripheral circulatory failure in scorpion sting.

52. Height of a newborn doubles at:
September 2005, March 2010

a) 1 year

b) 2 year

c) 3 year

d) 4 year

Correct Answer - D
Ans. D: 4 year
In general, length in normal term infants increases about 30% by 5 months and > 50% by 12 months; infants grow 25 cm during the 1st yr; and height at 4 yr is about double birth length.

53. Normal weight of infant at 1 year from birth is:

September 2007

a) Doubled

b) Trippled

c) Quadrupled

d) Variable increase

Correct Answer - B

Ans. B: Trippled

Normal Weight Increases:

1. Weight doubles by 6 months of age
2. Weight triples by 1 year of age
3. Weight quadruples by 2 years of age
4. Annual increase (Ages 2-9): 2.0 kg/year

54. Very low birth weight is less than: *September 2009, March* 2013 *(g)*

a) 1000 gm

b) 1500 gm

c) 2000 gm

d) 2500 gm

Correct Answer - B
Ans. B: 1500 gm
Very low birthweight is a term used to describe babies who are born weighing less than 1,500 grams.

55. All of the following are components of APGAR score except:
September 2008

a) Heart rate

b) Respiratory efforts

c) BP

d) Muscle tone

Correct Answer - C
Ans. C: BP
This test is a screening tool to determine whether a newborn needs medical attention to stabilize the heart or breathing function.
Examine the baby's:

- Breathing effort
- Heart rate
- Muscle tone
- Reflexes
- Skin color

Each category is scored with 0, 1, or 2, depending on the observed condition.
Breathing effort:
- If the infant is not breathing, the respiratory score is 0.
If the respirations are slow or irregular, the infant scores 1 for respiratory effort.
– If the infant cries well, the respiratory score is 2. Heart rate is evaluated by stethoscope. This is the most important assessment:
- If there is no heartbeat, the infant scores 0 for heart rate.
- If heart rate is less than 100 beats per minute, the infant scores 1 for heart rate.

for heart rate.
- If heart rate is greater than 100 beats per minute, the infant scores 2 for heart rate.

Muscle tone:

- If muscles are loose and floppy, the infant scores 0 for muscle tone.
- If there is some muscle tone, the infant scores 1.
- If there is active motion, the infant scores 2 for muscle tone.

Grimace response or reflex irritability is a term describing response to stimulation such as a mild pinch:

- If there is no reaction, the infant scores 0 for reflex irritability.
- If there is grimacing, the infant scores 1 for reflex irritability.
– If there is grimacing and a cough, sneeze, or vigorous cry, the infant scores 2 for reflex irritability.

Skin color:

– If the skin color is pale blue, the infant scores 0 for color.
– If the body is pink and the extremities are blue, the infant scores 1 for color.

56. Which of the following is not a component of Kangaroo mother care (KMC)?

a) Skin to skin contact

b) Supplementary nutrition

c) Exclusive breast feeding

d) Early discharge and follow-up

Correct Answer - B
Ans. b. Supplementary nutrition
Kangaroo position
The kangaroo position consists of skin-to-skin contact (SSC) between the mother and the infant in a strictly vertical position, between the mother's breasts and under her clothes.
SSC should be started as early as possible after birth and can be of two types depending upon the duration: continuous or intermittent.
Kangaroo nutrition
This can be exclusive breastfeeding/fortification.
. Kangaroo nutrition is the delivery of nutrition to "kangarooed" infants as soon as oral feeding is possible.
. It is based on exclusive breastfeeding by direct sucking, whenever possible.
. Goal is to provide exclusive or nearly exclusive breastfeeding with fortification, if needed.
. Breastfeeding is an integral component of KMC and it might contribute to significant gains in neurological development and IQ

57. 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

58. 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).

59. Regarding IMNCI, when should refer the clild to higher centre?

a) Pneumonia

b) Severe pneumonia

c) Persistent diarrhea

d) All of above

Correct Answer - B

Ans. is 'b' i.e., Severe pneumonia

- Refer urgently to hospital afte giving instruction in following cases :?

1. Possible serious bacterial infection
2. Severe jaundice
3. Diarrhoea with severe dehydration
4. Severe persistent diarrhoea (not PERSISTENT DIARRHOEA)
5. Severe dysentry
6. Not able to feed or severe malnutritions
7. Severe pnumonia or very severe disease
8. Severe complicated measls
9. Mastoiditis
10. Severe malnutrition
11. Severe anemia

60. Keshan disease in due to deficiency of

a) Selenium

b) Copper

c) Zinc

d) Iron

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

- Keshan disease
- Cardiomyopathy associated with selenium deficiency.
- Wilson disease
- Autosomal recessive.
- Defective metabolism of copper leads to copper toxicity.
- Deficiency of ceruloplasmin.
- Presence of KF ring in cornea.
- Acrodermatitis enteropathica
- Deficiency of zinc.
- Dermatitis of extremities & around orifices.

61. Elements of bishop's score is all except ?

a) Cervical dilatation

b) Cervical effacemat

c) Endometrial consistency

d) Fetal station

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

- Bishop score, also Bishop's score, also known as cervix score is a pre-labor scoring system to assist in predicting whether induction of labor will be required.
- The total score is achieved by assessing the following five components on vaginal examination:
- Cervical dilation
- Cervical effacement
- Cervical consistency
- Cervical position
- Fetal station
- If the Bishop score is 8 or greater the chances of having a vaginal delivery are good and the cervix is said to be favorable or "ripe" for induction.
- If the Bishop score is 6 or less the chances of having a vaginal delivery are low and the cervix is said to be unfavorable or "unripe" for induction

62. Sign of puberty in boys ?

a) Enlargement of penis

b) Enlargement of testes

c) Appearance of pubic hair

d) Appearance of axillary hair

Correct Answer - B

Ans. is 'b' i.e., Enlargement of testes

- In girls, the first visible sign of puberty is the appearance of breast buds (Thelarche), between 8-12 years of age.
- In boys the first visible sign of puberty is testicular enlargement, beginning as early as $9^{1}/2$ yr.

63. 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

64. Functional disorder is?

a) Fugue

b) Conversion

c) Hypochondriasis

d) All of above

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

- *Transformation of inner psychological conflict into physical symptoms*

Two types

- Somatoform
- Dissociative

Somatoform disorder include?

- Conversion
- Somatization
- Pain disorder
- Hypochondriasis
- Body dysmorphic disorder

Dissociative disorder - include?

- Dissociative amnesia
- Fugue
- They are often associated with co-morbid mood & anxiehg disorder

65. 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.

66. Pre-cancerous lesion of bone?

a) Paget disease

b) Chronic osteomyelitis

c) Benign giant cell tumor

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Pre-cancerous lesion of bone

- Multiple exostoses
- Ollier's disease
- Benign giant cell tumor
- Osteoblastoma
- Chondroblastoma
- Chronic osteomyelitis
- Paget's disease

67. 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.

68. 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.*

69. What does the CTG depicts?

a) Fetal Heart rate monitoring

b) Growth monitoring

c) Size monitoring

d) Amniotic index monitoring

Correct Answer - A
Ans. is 'a' i.e., Foetal heart rate monitoring

- Cardiotocography or CTG is a test usually done in the third trimester of pregnancy.
- It is done to see if your baby's heart beats at a normal rate and variability.
- Normally, a baby's heart rate is anywhere between 110 and 160 beats per minute and increases when the baby moves.
- Checking that your baby's heart rate responds to his movements is an indirect way of knowing if he gets enough oxygen from the placenta.
- The test will also see how baby's heart rate is affected by your contraction.
- A CTG done in your third trimester is also known as a 'non stress test' because your baby is not under the 'stress' oflabour.
- Early deceleration - Head compression
- Late deceleration - Utero placental insufficiency
- Variable deceleration - umblical cord compression

70. Kuppuswamy Scale - include A/E

a) Education

b) Occupation

c) Housing

d) Monthly income

Correct Answer - C
Ans. is 'c' i.e., Housing
Kuppuswamy's socio-economic scale?

- important tool for assessing socio-economic status of family
- Include 3 parameters?
- Education of head of family
- Occupation of head of family
- Family income per month

Family is divided into?

- Upper class
- Upper middle
- Lower middle
- Upper lower
- Lower

71. 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

72. Not included in modified Jones criteria?

a) Polyarthalgia

b) Carditis

c) Chorea

d) Erythema marginatum

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

73. 2 weeks old baby having scrotal pigmentation along with hyponatremia, gypoglycemia and hyperkalemia enzyme deficient?

a) 11 beta hydroxylase

b) 21 a- hydroxylase

c) 3- Beta hydroxylase dehydrogenase

d) 17- hydroxylase deficiency

Correct Answer - B
Ans. is 'b' i.e., 21 a- hydroxylase

74. Severe acute malnutrition, arm circumference is less than (in cm) ?

a) 12.5

b) 13.5

c) 12

d) 11.5

Correct Answer - D
Ans. is 'd' i.e., 11.5

- Weight-for-height -3 Z-score, or
- Mid-upper-arcccfm circumference <115 mm, or
- Presence of bilateral oedema

75. Cerebral palsy in which upper limb is less affected than lower limb

a) Spastic diplegia

b) Spastic paraplegia

c) Spastic Quadriplegia

d) Spastic hemiplegia

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

76. Child of 6 weeks with Hemoglobin of 10 gm% pale on examination, diagnosis is ?

a) Physiological anemia

b) Pathological anemia

c) Thalassemia

d) Iron dificiency anemia

Correct Answer - A

Ans. is 'a' i.e., Physiological anemia

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
5. No work-up or treatment unless Hemoglobin lower than expected

Other point ?

Hemoglobin g/dl cut off- . (WHO/UNU-1996)

- *6mo-5yr <11.0; 5-11 yr - 11.5;*
- *12-13 yr -12.0g/d1; Men - 13.0*
- *Women Non-pregnant - 12.0;Pregnant - 11.0*

77. Child with seizure plus hyponatremia treatment of choice ?

a) 0.9% NaCl

b) i/2 0.45% NaC1

c) Dextrose + NaC1

d) 3% NaC1

Correct Answer - D
Ans. is 'd ' i.e., 3% NaC1
Hyponatremia

- (Serum sodium < 130 meq/L).
- (Symptomatic when sodium < 120 meq/L).
- Fluid shift from ECF to neuronal cell.
- Results in cerebral edema which causes headache, drowsiness, seizure, coma.

Treatment:?

1. In low ECF volume & asymptomatic-give ORS/Normal saline.
2. In complicated like seizure-give 3-5 ml/kg of 3% hypertonic saline to raise Na by 5 meq/Lit.
3. Never do rapid correction (> 12 meq/Lit in 24 hour) can cause Central pontine myelinolysis (CPM).

78. Most important risk factor of recurrence of febrile seizure is ?

a) Age of onset < 2 years

b) Family history

c) Seizure at time of fever peak

d) Long prolonged fever prior to seizureBaby

Correct Answer - B

Ans. is 'b' i.e., Family history

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.
- Approximately 30-50% of children have recurrent seizures

Factors associated with increased recurrence risk include

1. Age <12 mo
2. Lower temperature before seizure onset
3. A positive family history of febrile seizures, and
4. Complex seiz*ures*

79. 5 year old child with watery diarrhea for 7 days, on examination, weight = 10 kg, hanging skin folds with normal skin pinch, Sodium in ORS should be -

a) 45 meq/Lit

b) 60 meq/Lit

c) 75 meq/Lit

d) 90 meq/Lit

Correct Answer - C
Ans. is 'c' i.e., 75 meq/Lit

80. Not a feature of TOF ?

a) Boot shaped heart

b) Patent foramen ovale

c) VSD

d) RVH

Correct Answer - B
Ans. is 'b' i.e**.,** Patent foramen ovate

81. Laron dwarfism is caused by ?

a) Deficiency of GH

b) GH receptor defect

c) Deficiency of thyroxin

d) Thyroxin receptor defect

Correct Answer - B
Ans. is 'b' i.e., GH receptor defect
Laron syndrome

- Dwarf
- Development of end organ resistance to *growth hormone.*

82. Isoniazid child dose in DOTS regimene (RNTCP)-

a) 10-15 mg/kg/dg

b) 15-20 mg/kg/dg

c) 20-25 mg/kg/dg

d) 5-10 mg/kg/dg

Correct Answer - A
Ans. is 'a' i.e., 10 -15 mg/kg/dg

83. Girl aged 7 yrs, weignt 25 kg. I.V. fluid dose for maintainance?

a) 14 litres

b) 15 litres

c) 16 litres

d) 17 litres

Correct Answer - C
Ans. is 'c' i.e., 16 litre

84. Object permanence milestone develop at?

a) 6 months

b) 9 months

c) 12 months

d) 15 months

Correct Answer - B
Ans. is 'b' i.e., 9 month

85. Tuberculosis in children true is?

a) Commonly sputum negative

b) Incidence < 5% of all TB casesv

c) Clinically child does not show sign of florid TB.

d) All of above

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

- Prevelance of childhood TB is between I 0 to 20% of all TB cases and between 5 to I 5% overall
- Frequency of childhood Tb depends upon: number of infectious cases, closeness of contacts, age of child when exposed, age structure of population
- Children are rarely sputum positive and non invective to others
- Childhood tuberculosis is rarely contagious because; of low bacterial load and rarity of cavitating disease
- Childhood TB is common due to failure of control in adult and risk of infection to child depends upon extent of exposure to droplet nuclei.
- An infant with sputum positive mother has high chances of developing TB
- Risk of developing disease is greatest shortly after infection
- Children below 5 years of age are most susceptible because of poor immune system, therefore most common in age group of 1-4 years
- Young age is a risk factor for dissemination to other body parts o Children (especially below 5 years of age) usually cannot expectorate sputum to allow a definite diagnosis
- As there are no specific symptoms and findings on clinical examination in children, the diagnosis is usually made after taking

history of close contact with an adult with TB, failure to thrive, and persistent cough > 3weeks if the child has received broad specrum antibiotics.

- Tuberculin test may have supportive evidence
- Chest X ray is a common investigation, especially in military TB
- A Symptomatic child with tuberculin positive 10 mm, is considered as case regardless of BCG administration.

86. Least common valve involved in rheumatic fever?

a) Aortic valve

b) Tricuspid valve

c) Mitral valve

d) Pulmonary valve

Correct Answer - D
Ans. is 'd' i.e., Pulmonary valve
Endocarditis in rneumatic fever
1. Mitral valve involved almost all the cases of Acute Rheumatic Fever.
2. Almost 25% of MR is asociated with aortic regargitation.
3. Tricuspid regurgitation is seen in 10-30% cases.
4. Pulmonary valve involvement is never seen.

87. Congenital adrenal hyperplasia shows which clinical features?

a) Female pseudo hermaphrodite (pseudohermaph roditism)

b) Hypertinsion

c) Electrolyte imbalance

d) All of above

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

88. 18 months old child cellulitis of leg $Sp0_2$ 88%, no prior history of hospitalization or illness most probable organism is?

a) MRSA

b) Streptococcus pneumonia

c) Streptococcal pyogenes

d) All of above

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

- Cellulitis is characterized by infection and inflammation of loose connective tissue, with limited involvement of the dermis and relative sparing of the epidermis.
- Streptococcus pyogenes and S. aureus are the most common etiologic agents.
- Children with relapsed nephrotic syndrome may develop cellulitis due to Escherichia coli.
- Cellulitis presents clinically as an area of edema, warmth, erythema, and tenderness. The lateral margins tend to be indistinct because the process is deep in the skin, primarily involving the subcutaneous tissues in addition to the dermis. Application of pressure may produce pitting. Although distinction cannot be made with certainty in any particular patient, cellulitis as a result of S. aureus tends to be more localized and may suppurate, whereas infections due to S. pyogenes (group A streptococcus) tend to spread more rapidly and may be associated with lymphangitis.
- MRSA is usually seen in hospitalised child.

89. A child is suffering from dry skin and is mentally retarded-diagnosis ?

a) Vit A deficiency

b) Crebral palsy

c) Hypothyroidism

d) All above

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

90. Laurence moon biedle syndrome- Associated with?

a) Polydactyly

b) Mental retardation

c) Retinitis pigmentosa

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Laurence-Moon-Biedl syndrome is characterized by:
Obesity
Polydactyly
Mental retardation
Hypogonadotropic hypogonadism
Retinitis pigmentosa

91. 14 KG child severe diarrhea fluid for 6 hours ?

a) 1400 ml

b) 1500 ml.

c) 1550 ml.

d) 1600 ml.

Correct Answer - C
Ans. is 'c' i.e., 1550 ml

92. Diplegia Vs quadriplegia-False is

a) Diplegia is weakness in upper arm more than leg

b) Quadriplegia is most severe form of cerebral palsy

c) Quadriplegia is usually association with MR & seizure

d) All are corract

Correct Answer - A
Ans. is 'a' i.e., Diplegia is weakness in upper arm more than leg

93. Which of the following is not example of Pseudopuberty?

a) Tumor of hypothalamus

b) Ovarian tumor

c) Tumor of adrenal gland

d) All of above

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

94. 4 year old girl wt. 12kg with diarrrhoea, skin pinch goes back very slowly & she is not able to drink- false is

a) Develop severe dehydration

b) Require plan C treatment

c) Fluid of choice-ORS

d) Require hospitalition

Correct Answer - C

Ans. is 'c' i.e., Fluid of choice-ORS

Two of following sign suggest severe dehydration :

- Lethargic or uncouscious
- Sunken eye
- Not able to drink or drinking poorly
- Skin pinch goes back very slowly

So above girl is suftering from severe dehydration treatmen- give fluid for sever dehydration (plan C)

- Urgent IV fluid infection
- Require hospitalisation.

95. Child with proteinuria, generalised edema. With hypoproteinemia & hyperlipidemia- M.C. cause is?

a) Minimal change nephrotic syndrome

b) IgA nephropathy

c) Mesangial glomerulonephritis

d) FSGN

Correct Answer - A
Ans. is 'a' i.e., Minimal change N.S.
Nephrotic syndrome characterised by :?

- Massive proteinuria = (more than 1 gm/m2/day).
- Hypoalbuminemia (serum albumin below 2.5 g//dl).
- Edema
- Hyperlipidemia often associated.

Resultant fall in plasma oncotic pressure leads in edema.

- Stimulation of Renin - Angiotensin system causes sodium & water retention.
- More than 90% of childhood N.S. is primary.
- Most common cause of primary N.S. is minimal change.
- In electron microscopy, Histopathology show loss of podocyl and loss of negatively charged protein leads to selective proteinuria (albumineria

96. 18 month old child sign of severe pneumonia is

a) Chest indrawing

b) Stridor in calm child

c) Inability to drink

d) All of above

Correct Answer - D
Ans. is 'd' i.e., All of above
Severe pneumonia or very severe disease :?
1. Chest indrowing 'or'
2. Stridor in calm child 'or'
3. Any general danger sign
4. H/0 convulsion
5. Inability to drink or breast feed
6. Uncousciousness or letharginess
7. Child vomiting everything.

Pneumonia :?
- Fast breathing-defined as
- Upto 2 month = 60 breath/minute
- 2 month-12 month = 50 breath/minute
- 12 months to 5 year = 40 breath/minute

97. Drug for long term treatment of partial seizure is?

a) Valproate

b) Carbamazepine

c) Eptoin

d) Phenobarbitone

Correct Answer - B

Ans. is 'b' i.e., Carbamazepine

- *C*arbamazepine is effective drug for long term treatment of GTcs & partial seizure advantage being furious side effect.
- Does of CBZ is 10-30 mg/kg/day in 2-3 divided doses.

Phenobarbitone :

- Used in GTCS type below 1 year of age
- Because of development of hyperkinesia & learing disabilities after 1st year of life should be avoided prolonge period.

Eption :

- Maintain prolongs seizure effect
- Very cheap
- Used in GTCS & partial seizure.

Valproate :

- Useful in GTCS, absence, myoclonic, partial and akinetic seizure.

98. 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.

99. Male downs syndrome genotype?

a) 46 XY

b) 47 XY

c) 45 XY

d) 47 XXY

Correct Answer - B
Ans. is 'b' i.e., 47 XY
In 95% of cases of Down syndrome-trisomy of 21:?

- Extra chromosome is of maternal in origin.
- 1% have mosaic with some all have 46 chromosome.
  4% have robertsonian translocation.
- t (13 : 21)
- t (14 : 21) at (15 : 21)
- Very rarely long arm of chromosome 21 is triplicate (Partial trisomy).

100. Pulmonary hypoplasia with uropathy diagnosis is?

a) Potter syndrome

b) patau syndrome

c) Perthe disease

d) All of the above

Correct Answer - A
Ans. is 'a' i.e., 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 with epicanthic folds, the ears are low set, the nose is broad and compressed flat, the chin is receding, and there are limb anomalies.
- Bilateral renal agenesis should be suspected when maternal ultrasonography demonstrates oligohydramnios, nonvisualization of the bladder, and absent kidneys.

101. Anterior fontanelle closes at ?

a) 2-3 months

b) 4-7 months

c) 9-12 months

d) 18-24 months

Correct Answer - D
Ans. is `d' i.e., 18-24 months

102. Hypergonadotropic hypogonadism ?

a) Decrease FSH and LH

b) Decrease FSH and increase LH

c) Increase FSH increase LH

d) Increase FSH decrease LH

Correct Answer - C

Ans. is '-c' i.e., Increase FSH increase LH

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(FSH and LH).

Causes : Chromosomal abnormalitis

- Turner's syndrome
- Klinefelter syndrome
- Swyer's syndrome

Enzyme defect

- 17 , hydroxylase
- 17, 20 lyase deficiency

103. IMNCI for sick child involves following colors except ?

a) Red

b) Green

c) Yellow

d) Pink

Correct Answer - C
Ans. is `d' i.e., Pink

104. Main highlight of IMNCI is ?

a) 0-7 days of infant

b) 0-14 days of infant

c) Sick infant more than sick child

d) 0-5 years of age

Correct Answer - D
Ans. is `d' i.e., 0-5 years of age

105. Bilateral consonants are ?

a) Pb9

b) PbMW

c) MW

d) TLMW

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

- Pronounced or articulated with both lips, as the consonants b, p, m, and w.
- Baby starts producing bilabial words by 4th month of age.

106. Following feature differentiate hydranencephaly from hydrocephalus ?

a) Hydranencephaly is static while hydrocephalus continue to increase in size

b) Hydranencephaly does not cause increase in head size

c) Cerebral cortex are deficiency/hypoplastic in hydranencephaly

d) All of the above

Correct Answer - C

Ans. is 'c' i.e., Cerebral cortex are deficiency/hypoplastic in hydranencephaly

Hydranencephaly is a rare encephalopathy that occurs in-utero.

- It is characterised by destruction of the cerebral hemispheres with transformation of the same into a membranous sac containing cerebrospinal fluid and the remnants of cortex and white matter . The midbrain and brainstem are relatively intact.
- The cause of hydranencephaly is unknown, but bilateral occlusion of the internal carotid arteries during early fetal development would explain most of the pathologic abnormalities.
- Affected infants may have a normal or enlarged head circumference at birth that grows at an excessive rate postnatally.
- Transillumination shows an absence of the cerebral hemispheres.
- The child is irritable, feeds poorly, develops seizures and spastic quadriparesis, and has little or no cognitive development.
- A ventriculoperitoneal shunt prevents massive enlargement of the cranium..
- Porencephaly is considered a less severe degree of the same pathology

107. Normal intracranial pressure in a child is ?

a) 30-70 mm of H20

b) 50-80 mm of H20

c) 100-150 mm of H20

d) 50-150 mm of H20

Correct Answer - B
Ans. is 'b' i.e., 50-80 mm of H_20

CSF finding

Pressure	-	50-80 mm of H20
Leucocyte	-	< 5, . 75% lymphocyte
Protein	-	20-45 mg/dl
Glucose	-	> 50 (2/3 of serum glucose

108. 10 days old baby develops swelling left in posterior cervical area, bluish in appearance, increase in size on crying and brilliently transilluminant

a) Parotiditis

b) Hemangioma

c) Cystic hygroma

d) Lymph node

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

- Usually present in neonate or early infancy.
- Filled with lymph
- Commonly present in posterior cervical area, axilla, mediastinum, parotid, floor of mouth.
- Soft & partially compressible
- Size increase during crying, coughing
- Brilliently transilluminant
- Sometimes size increase with age or during infection.
- Treatment is complete excision.

109. 17-OH progesterone level in congenital adrenal hyperplasia in 1 year old child (in ng/dl)-

a) >600

b) 150-300

c) 300-600

d) <150

Correct Answer - A
Ans. is 'a' i.e., > 600

- Normal and abnormal values of 17-0H progesterone differ for babies born with low birth weight.

In general, normal results are as follows:

- Newborn cord blood - 1,000 - 3,000 ng/dL
- Babies more than 24 hours old - less than 100 ng/dL
- Adults - less than 200 ng/dL
- Note: ng/dL = nanograms per deciliter.

High levels of 17-0H progesterone may be due to:

- Tumors of the adrenal gland
- Congenital adrenal hyperplasia (CAH)
- In infants with CAH, 17-0HP levels range from 2,000 - 40,000 ng/dL

110. 3 months old child with typical mewing cry and congenital heart disease, chromosome abnormality

a) 5g

b) 5p

c) 4p

d) 9p

Correct Answer - B
Ans. is 'b' i.e., 5p
Cri-du-chat syndrome.

- A high-pitched cry like a cat, giving the syndrome its name.
- Genetic studies have confirmed that this characteristic cry results from the deletion at 5p15
- The main features are hypotonia, short stature, characteristic cry, microcephaly with protruding metopic suture, moonlike face, hypertelorism, bilateral epicanthic folds, high arched palate, wide and flat nasal bridge, and mental retardation. Cardiac abnormalities including ventricular septal defect, atrial septal defect, patent ductus arteriosus and Fallot's tetralogy.

111. Good prognostic factor for AML are all except ?

a) Age less than 2 years

b) Acute promyelocytic leukemia

c) Acute megakaryoblastic leukemia

d) Associated with down syndrome

Correct Answer - C
Ans. is 'c' i.e., Acute Mega karyoblastic leukemia
Good Prognostic factors for children with AML

- Prognostic factors are not quite as important in predicting outcome or in guiding treatment for AML as they are for ALL.
- Age at diagnosis: Children younger than age 2.
- Initial white blood cell (WBC) count: Children with AML whose WBC count is less than 100,000 cells per cubic millimeter Down syndrome: Children with Down syndrome who develop AML tend to have a good outlook.
- Subtype of AMrognostic factors are not quite as important in predicting outcome or in guiding treatment for AML as they are for ALL.
- Age at diagnosis: Children younger than age 2.
- Initial L: the acute promyelocytic leukemia (APL) M3 subtype tends to have a good outlook, while undifferentiated AML (MO) and acute megakaryoblastic leukemia (M7) are harder to treat.
- Chromosome changes: Children with leukemia cell translocations between chromosomes 15 and 17 or between 8 and 21, or with an inversion (rearrangement) of chromosome 16 have a better chance of being cured.
- Response to treatment: Children whose leukemia responds quickly

to treatment.

- Body weight: Children within the normal weight range tend to do better than children who are underweight or overweight.

112. 10 year old boy with gross hematuria, loin pain, diarrhoea urine examination is normal. Serum C3 levels are normal diagnosis is ?

a) Berger's disease

b) PSGN

c) Microangiopathic hemolytic anemia

d) None of the above

Correct Answer - A

Ans. is 'a' i.e., Berger's disease

PSGN

- Abrupt onset of hematuria, oliguria, edema & hypertension.
- Following infection by group A beta hemolytic streptococci.
- Throat strain 4 & 12, skin strain-49
- Granular deposition of IgG & C3 level.
- C_3 level is decrease

Microangiopathic hemolytic anemia

- Also known as HUS (Hemolytic uremic syndrome)
- Acute diarrhoea or dysentry followed by sudden onset of pallor, oliguria, seizure, alterred sensorium
- Microscopic hematuria, mild proteinuria, thrombocytopenia

IgA Nephropathy (Berger Nephropathy)

- A nephropathy is the most common chronic glomerular disease worldwide.
- It is characterized by a predominance of IgA within mesangial deposits of the glomerulus in the absence of systemic diseases such as systemic lupus erythematosus or Henoch-SchOnlein purpura.

- Focal and segmental mesangial proliferation and increased mesangial matrix are seen in the glomerulus. Some children display generalized mesangial proliferation that may be associated with crescent formation and scarring. IgA is the predominant immunoglobulin deposited in the mesangium
- IgA nephropathy is seen more often in males than in females.
- Gross hematuria often occurs in association with an upper respiratory or gastrointestinal infection and may be associated with loin pain.
- Mild to moderate hypertension is most often seen in patients with nephritic or nephrotic syndrome but is rarely severe enough to result in hypertensive emergencies.
- Normal serum levels of C3 in IgA nephropathy help to distinguish this disorder from poststreptococcal glomerulonephritis.

113. Neck control comes by what age ?

a) 2 months

b) 3 months

c) 4 months

d) 5 months

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

Age Milestone

3 month	Neck holding
5 month	Rolls over
6 month	Sit with support
8 month	Sit without support
9 month	Stand with support
12 month	Stand without support, Walk with support
15 month	Walk alone, creep upstair

114. 5 year old child with pseudomembrane in throat, fever, sore throat, organism is ?

a) Comma shaped gram negative bacilli

b) Club shaped gram positive bacilli

c) Spore forming gram positive bacilli

d) Filamentous gram positive bacilli

Correct Answer - B
Ans. is 'b' i.e., Club shaped gram positive bacilli
Corney bacterium diphtheria

- Non motile, non-capsulated, club shaped gram positive bacillus.
- Infect nasopharynx & release exotoxin which cause local inflamation of epithelial surface, formation of membrane (pseudomembrane) and toxemia.

115. Breast feeding contraindication

a) Hep A

b) Hep B

c) CMV

d) Active untreated T.B

Correct Answer - D
Ans. is 'd' i.e., Active untreated tuberculosis
Contraindication of Breast feeding
1. Galactosemia
2. Active untreated tuberculosis - only in initial period
3. HIV positive mother - especially in developed country.
4. Some medication

Not contraindication of breast feeding
1. Hbs Ag positive mother
2. Hepatitis C infection
3. CMV
4. Febrile
5. Tobacco smoking
6. Alcohol

116. Most common indication for liver transplant in children is ?

a) Viral hepatitis with fulminant hepatic failure

b) Biliary atresia

c) Metabolic disease

d) Hepatic tumor

Correct Answer - B

Ans. is 'b' i.e., Biliary atresia

- Pediatric liver transplantation
- Biliary atresia is commonest indication for liver transplantation in pediatric age group.

Other causes are : -

- Li Progressive primary liver disease
- Stable liver disease with significant morbidity
- Metabolic liver disease
- Fulminant hepatic failure

117. Which of in following is the least common cause of ARDS

a) Aspiration

b) Severe pneumonia with sepsis

c) shock

d) All of above

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

- Pulmonary edema not originating from heart

Causes

1. Severe pneumonia followed by sepsis (MC.)
2. Shock
3. Tissue injury
4. Aspiration
5. Toxin
6. Microthrombi
7. Intravascular coagulation, uremia, raise ICT

- Increase permeability of alveolar capillarymembrane.
- Feature Initially symptoms are less & lung clear. Lateron respiratory distress followed by refractory hypoxia followed by hypercapnia.
- Mortality is high.

118. 15 months old child feeding on cow milk with water wih severe wasting and bipedal edema with poor appetite ?

a) Kwashiorkar

b) Marasmus

c) Both

d) None

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

119. 4 year old child with severe wasting and voracious apetite without pedal edema ?

a) Kwashiorkar

b) Marasmus

c) Both

d) None

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

120. Which of the following is the major site of erythropoietin production during the fetal stage?

a) Liver

b) Yolk

c) Bone

d) Spleen

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

- Erythropoitin is produced in fetal liver in first and second trimester.
- After birth major site of production is kidney.

121. Pertussis vaccine side effect

a) Local pain

b) Excessive cry

c) Fever

d) All of above

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

- Available as whole cell and acellular as DTPw and DTPa
- Primary immunisation at 6, 10, 14 weeks followed by booster dose 1'/2 year and 5 year.
- Whole cell causes more side effect than acellular
- Side effect-local pain, redness, fever, irritability, excessive cry because of cortical irritation.

Contraindication

1. Progressive neurological disease (Relative)
2. Immediate anaphylasix
3. Encephalopathy
4. Persistent Inconsable cry
5. Hypotensive - hyporesponsive episode

122. 4 day old newborn baby having icterus involving sole, bilirubin level (mg/dl) ?

a) 12

b) 15

c) 8

d) 6

Correct Answer - B
Ans. is 'b' i.e., 15 mg

Dermal staining of bilirubin?

- Described by kramer
- Jaundice progress in cephalocaudal direction
- Divided in 5 zone

Zone Bilirubin

4-6 mg/dl	Face
6-8 mg/dl	Trun k & upper abdomen
8-12 mg/dl	Lower abdomen & thign
12-14 mg/dl	Arm & leg
> 15 mg/dl	Palm & sole

123. Pediatirc airway differ from adult ?

a) Large tongue

b) Short epiglotitis

c) Narrowest part is glottis

d) Larynx in lower posittion

Correct Answer - A
Ans. is 'a' i.e., Large tongue
Airway : Pediatric Vs Adult

- Obligate nasal breather
- Large tongue
- Larynx & trachea are funnel shaped
- Larynx located higher (C_4) Vs C6 in adult.
- Narrowest part is cricoid (glottis in adults)

124. Hand-foot syndrome is seen in ?

a) Frost bite

b) Sickle cell disease

c) Raynaud's phenomenon

d) Thalassemia

Correct Answer - B
Ans. is 'b' i.e., Sickle cell disease

- Dactylitis, often referred to as hand-foot syndrome, is frequently the 1st manifestation of pain in children with sickle cell anemia, occurring in 50% of children by 2 yr of age.
- Dactylitis is caused by blocked blood circulation. Symptoms include extreme pain and tenderness, usually with swelling. An episode may last 1 to 4 weeks
- Requires palliation with pain medication, often acetaminophen with codeine,
- Note- Hand-foot syndrome, also called palmar-plantar erythrodysesthesia, is a side effect of some types of chemotherapy. Hand-foot syndrome occurs when drugs used to treat the cancer affect the growth of skin cells or capillaries (small blood vessels) in the hands and feet. Once the drug is out of the blood vessels, it damages the surrounding tissues. This can cause symptoms of hand-foot syndrome that range from redness and swelling to difficulty when walking

125. Asymptomatic infant with, Wo TB exposure, He is 3 month old and had taken 3 months of chemoprophylaxis, what is to be done next ?

a) Test sputum and then decide

b) Continue for 3 months

c) Tuberculin test then decide

d) Immunise with BCG & stop prophylasix

Correct Answer - B

Ans. is 'b' i.e., Continue for 3 month (WHO & RNTCP guideline)

- A child born to mother who was diagnosed to have TB in pregnancy should receive prophylaxis for 6 months, provi ded congenital TB has been ruled out. BCG vaccination can be delayed even if INH chemoprophylaxis is planned

126. 2 week old neonate with history of stridor in prone position - what is treatment

a) Oral calcium

b) Nebulisation

c) Wait & watch

d) Antibiotic

Correct Answer - C
Ans. is 'c' i.e., Wait & watch
Larvngomalacia

- The most common congenital laryngeal anomaly and the most frequent cause of stridor in infants and children.
- Typically, stridor is inspiratory, low pitched, and exacerbated by any exertion (crying, agitation, feeding), supine position, and viral infections of the upper airway.
- Stridor results from the collapse of supraglottic structures inward during inspiration.
- Symptoms usually appear in the first 2 wk of life and increase in severity for up to 6 mo, although gradual improvement can begin at any time.
- The diagnosis is confirmed by flexible laryngoscopy
- Expectant observation is suitable for most infants because most symptoms resolve spontaneously

127. First trimester USG finding in Down syndrome?

a) Nuchal thickening

b) Nuchal translucency

c) Cardiac anomalies

d) GI anomalies

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

128. Level of trachea bifurcation in pediatic patient is ?

a) T_2

b) T3

c) T_q

d) T5

Correct Answer - B
Ans. is 'b' i.e., T_3

- Bifurcation of trachea in children is at T_3 level while in adult at T_4 - T_s level. In adult if may reach upto T_6 level during deep inspiration.
- Trachea extend from lower border of cricoid cartilage (level of C_6) to upper border of T_5 vertebra (adult).
- Tracheal diameter in mm corresponds to age in year (pediatric) eg. 4mm in 4 year old child.
- Narrower airway exert greater resistance in children so develop distress in respiratory tract infection.

129. Hepatitis A vaccine scheudule - True is ?

a) Recomended at age of 12 months

b) 2 dose of killed vaccine 6 months apart

c) 1 dose of live vaccine

d) All are true

Correct Answer - D
Ans. is 'd' i.e., All are true
Hepatitis A (HepA) vaccines

- Routine vaccination:
- Minimum age: 12 months
- Killed HepA vaccine(available in India): Start the 2-dose HepA vaccine series for children aged 12 through 23 months; separate the 2 doses by 6 months.
- Live attenuated H2-strain Hepatitis A vaccine: Single dose starting at 12 months and through 23 months of age

130. Steeple sign is characteristis of ?

a) Acute epiglotitis

b) Laryngotrancheobronchitis

c) In both

d) None of above

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

131. Child starts making tower of 9 cubes by ?

a) 18 months

b) 24 months

c) 30 months

d) 36 months

Correct Answer - C
Ans. is 'c' i.e., 30 months

Bang 2 cube	8 month
Tower of 2 cubes	15 month
4 cubes	18 month
6 cubes	22 month
7 cube	24 month
9 cube	30 month
10 cube	36 month

132. Cause of jaundice in day 1 of baby - A/E ?

a) Rh incompability

b) ABO incompability

c) Prematurity

d) Breast milk jaundice

Correct Answer - D
Ans. is 'd' i.e., Breast milk jaundice
Cause of jaindice with 24 hour
1. Hemolyses Rh, ABO, G-6PD def, spherocytosis
2. Decrease conjugation (prematurity)
3. Extravasated blood cephal hematoma.

Prolonge jaindice beyond 3 weeks
1. Breast milk jaindice
2. Cephal hematoma
3. Ongoing hemolytic disease
4. G-6 PD def.
5. Hypothyroidism

133. Drooping eyelids in evening in boy ?

a) Myasthenia gravis

b) Oculomotor nerve palsy

c) Botulism toxin

d) All of above

Correct Answer - A

Ans. is 'a' i.e., Myasthenia gravis

Mvasthenia gravis - Two forms

a. Neonatal transient myasthenia gravis
b. Occurs in infant of myasthenic mother
c. Due to placental transfer of anticholinesterase antibody.
d. Presented as ptosis, weak cry, letahrginess, hypotonea within first few hour of birth.
e. Resolve spontaneously within 4 weeks.

Juvenile myasthenia gravis

- Seen in older children
- M.C. ocular nuscle involved
- Diurnal variation seen
- Usually associated with other autoimmune disorder.

Diagnosed by

1. Edrophonium test
2. Repetitive stimulation test
3. Antibody testing

Treament

- Pyridostigmine
- Steroid
- Plasma pharesis

134. Hair on end appearance is seen in?

a) Dermoid cyst

b) Thalassemia

c) Kwashiorkar

d) Tinea capitis

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

- Marked vertical striations in a patient with thalassemia give the appearance of hair standing on end so called hair on end sign usually seen in Thalassemia major

Kwashiorkor

- Triad of :-
- Psychomotor change
- Edema (PEG)
- Growth retardant
- Hair changes - Changes include dyspigmentation, loss of characteristic curls and sparseness over taple.
- Flag sign - Alternate band of hypopigmented and normally pigmented hair pattern

135. 2.2 kg 6 days old baby had poor feeding, letharginess. According to IMNCI, true is ?

a) Possible serious bacterial injection

b) Treated at home

c) Refer urgently

d) a & c are true

Correct Answer - D
Ans. is 'd i.e., a & c are true

136. Rotavirus vaccine - contraindication is ?

a) SCID

b) Intussusception

c) Severe allergic reaction

d) All of the above

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

137. Drug dosage best decided in child by

a) Weight

b) Age

c) Height

d) Investigation

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

138. In congenital adrenal hyperplasia, deficient enzyme is - most womon

a) 11(3 hydroxylase deficiency

b) 21 a hydroxylase deficiency

c) 3a hydroxylase deficiency

d) 17a hydroxylase deficiency

Correct Answer - B
Ans. is 'b' i.e., 21-a Hydroxylase
Congenital adrenal hyperplasia (CAH)

- Group of AR disorder
- MC adrenal disorder in childhood
- Most common 21-hydroxylase deficiency
- *In 21a-hyroxylese deficiency*
- There is deficiency of mineralocorticoids & glucocorticoid.
- This leads to hypoglycemia, hyponatremia

139. Most common heart lesion in down syndrome

a) ASD with ostium primum

b) ASD with ostium secundum

c) VSD

d) Coartection of aorta

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

140. Cause of hypophosphatemic rickets - A/E ?

a) Vit D deficiency

b) CRF

c) X-linked hypophosphatemic rickets

d) Fanconi syndrome

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

141. Child 1 year age came for vaccination, Polio virus, BCG at birth, what vaccine to be given below ?

a) BCG, OPV, Hep-B

b) Measles, DPT, OPV, Hib, Hep B.

c) DPT, OPV, Hib, Hep B

d) DPT, OPV, Hep B

Correct Answer - B
Ans. is 'b' i.e., Measles, DPT, OPV, Hip, Hep B.

142. Infant with double aortic arch presents with ?

a) CATCH 22

b) Digeorge syndrome

c) Velo-cardio-facial syndrome

d) All of above

Correct Answer - A
Ans. is 'a' i.e., CATCH 22
CATCH 22 stands for -

- Cardiac defect - double arch aorta. VSD, pulmonary atresia.
- Abnormal facies
- Thymic hypoplasia
- Cleft palate
- Hypocalcemia

143. Child rolls over by ?

a) 3 months

b) 5 months

c) 7 months

d) 8 months

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

Age	Milestone
3 Month	Neck holding
5 Month	Rolls over
6 Month	Sit with support
8 Month	Sit without support
9 Month	Stand with support
12 Month	Stand without support Walk with support
15 Month	Walk alone, creep upstair

144. End stage treatment of TOF is ?

a) BT shunt

b) Modified BT shunt

c) Waterston shunt

d) Pott - shunt operation

Correct Answer - B

Ans. is 'b' i.e., Modified BT shunt

Tetralogy of fallot: BT shunt/systemic-pulmonary artery (PA) shunts:

1. Classic BT shunt: The subclavian artery is anastomosed to the ipsilateral pulmonary artery (PA). This procedure is usually performed in infants older than 3- months; a right-sided shunt is performed in patients with left aortic arch; a left sided shunt is performed for right aortic arch.
2. Modified Blalock-Taussig shunt: A Gore-Tex interposition graft is placed between the subclavian artery and the ipsilateral PA. This is the most popular procedure for any age, especially for small infants younger than 3 months of age. A left-sided shunt is preferred for patients with a right aortic arch. The surgical mortality rate is I% or less.
3. The Waterston shunt: Anastomosis is performed between the ascending aorta and the right PA; this shunt is no longer performed because of high incidence of surgical complications, which include too large a shunt leading to congestive heart failure (CHF) or pulmonary hypertension, or both, and narrowing and kinking of the right PA causing difficulty at the time of corrective surgery.
4. The Pott-shunt operation: Anastomosis is performed between the descending aorta and the left PA; this shunt is no longer performed.

It may result in CHF or pulmonary hypertension, as in the Waterston operation. Moreover, left thoracotomy is required to close the shunt during corrective surgery.

145. Congenital rubella syndrome - true is A/E?

a) Microcephaly

b) VSD

c) Conduction defect

d) All

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

146. Factors associated with favourable prognosis of ALL is - A/E ?

a) Child below 1 year

b) Low counts in intial phase

c) Hyperdiploidy

d) 12, 21 translocation

Correct Answer - A

Ans. is 'a' i.e., Child below 1 year

Good Prognostic factors for children with ALL.

- Age at diagnosis: Children between the ages of 1 and 9 with B-cell ALL tend to have better cure rates.
- Low Initial white blood cell (WBC) count:
- Subtype of ALL: Children with pre-B, common, or early pre-B-cell ALL generally do better than those with mature B-cell (Burkitt) leukemia.
- Gender: Girls with ALL may have a slightly higher chance of being cured than boys.
- Number of chromosomes: Patients are more likely to be cured if their leukemia cells have more than 50 chromosomes (called hyperdiploicly).
- Chromosome translocations: Children whose leukemia cells have a translocation between chromosomes 12 and 21 are more likely to be cured. Those with a translocation between chromosomes 9 and 22 (the Philadelphia chromosome), 1 and 19, or 4 and 11 tend to have a less favorable prognosis.
- Response to treatment: Children whose leukemia responds completely within 1 to 2 weeks of chemotherapy have a better outlook

147. 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

148. APGAR score - include A/E

a) Heart rate

b) Respiratory rate

c) Muscle tone

d) Color

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

149. 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).

150. TRALI occurs within ?

a) Within 6 hour

b) 6-8 hour

c) 8-10 hour

d) > 10 hour

Correct Answer - A
Ans. is 'a' i.e., Within 6 hour

- Transfusion-Related Acute Lung Injury (TRALI) is a syndrome characterized by acute respiratory distress following transfusion.
- Symptoms of TRALI typicall^{y} develop during, or within 6 hours of a transfusion.
- Patients present with the rapid onset of dyspnea and tachypnea.
- There may be associated fever, cyanosis, and hypotension. Clinical exam reveals respiratory distress and pulmonary crackles may be present with no signs of congestive heart failure or volume overload. CXR shows evidence of bilateral pulmonary edema unassociated with heart failure (non-cardiogenic pulmonary edema), with bilateral patchy infiltrates, which may rapidly progress to complete "white out" indistinguishable from Acute Respiratory Distress Syndrome (ARDS).

151. 4 month Infant with cough, respiratory rate > 60/min, with no retraction, management (According to IMNCI protocol) ?

a) IM antibiotic & refer urgently

b) Oral antibiotic, explain danger sign & follow up

c) Explain danger sign & follow up

d) IM antibiotic & hospitalise

Correct Answer - B
Ans. is 'b' i.e., Oral antibiotic & explain danger sign & follow up

152. Thiamine deficiency - causes ?

a) Pellagra

b) **Beri** - Beri

c) Keshan's disease

d) Rickets

Correct Answer - B
Ans. is 'b' i.e., Beri-Berl
Beri-beri

- Deficiency of thiamine (Vit B])
- Can be dry (neural involvement)

153. Bidextrous grip is seen at what age?

a) 4 months

b) 5 months

c) 6 months

d) 7 months

Correct Answer - A

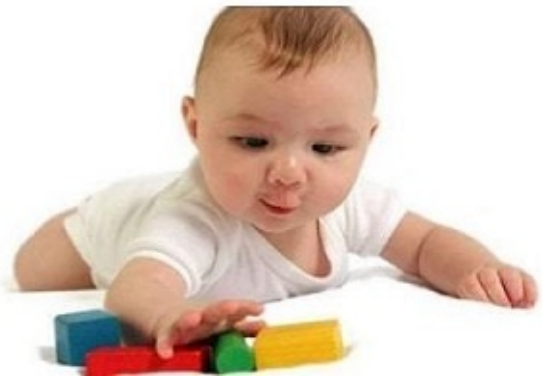
Ans. A. 4 months

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



154. Which of the following conditions is worsened by prostaglandin E infusion?

a) Pulmonary atresia without VSD

b) Hypoplastic left heart syndrome

c) Obstructive TAPVC

d) Aortic arch interruption

Correct Answer - C

Ans. c.'Obstructive TAPVC { Rc/: Ll lllohttn Retlth,. Cunliut. Srr ('unliut surgen''4,,uar oJ rht' se,tinurs in Trnrucic and Cardiovascular Surgery 2003;4:271-276)

- Obstructive TAPVC is worsened by prostaglandin E infusion
- In infants with or who have a clinical suspicion for a ductal dependent congenital heart defect, prostaglandin E, should be administered until a definitive diagnosis or treatment is established.

TAPVC

- Total anomalous pulmonary venous connection (TAPVC) is characterized by abnormal drainage of pulmonary veins into the right heart either by direct connection into the right atrium or into its tributaries.
- According to the site or level of connection of the pulmonary veins to the systemic venous system TAPVC has been classified into four types :-
  - Type I (most common: 45%) : Anomalous connection at supracardiac level (PV drains into left innominate vein or SVC)
  - Type II (25%) : Anomalous connection at cardiac level (PV joins the coronary sinus or enter right atrium directly).
  - Type III (25%) : Anomalous connection at infracardiac level (PV

drain into portal vein).
- Type IV (5%) : Anomalous connection at multiple levels.
- Infracardiac type of TAPVC is always obstructive whereas cardiac and supracardiac type may be obstructive or nonobstructive.

X-ray findings of TAPVC

- Cardiomegaly
- Plethoric lung fields
- *Snowman* or *figure of '8' configuration* - In supracardiac TAPVC.
- Ground glass appearance of lung - In obstructive TAPVC.

Clinical manifestations of TAPVC

1. Nonobstructive TAPVC - Patients presents with mild cyanosis and CHF at 6-8 weeks.
2. Obstructive TAPVC - Paients presents with severe cyanosis and CHF within first week.

- *In supracardiac TAPVC the pulmonary veins join to form a single trunk (common pulmonary vein) which than drain through anomalous connection*

155. All of these are criteria for severe acute malnutrition in a 6-month-old child except:

a) Mid-upper arm circumference

b) Symmetrical edema

c) Weight for height

d) Height for age

Correct Answer - D

Ans: D. Height for age

- Height for age is not a criterion for severe acute malnutrition in a 6-month old child.

Severe acute malnutrition (SAM):

-]Among children 6-59 months of age is defined by World Health Organization (WHO) and UNICEF as any of the following:
- Weight-for-height below –3 standard deviation (SD or Z scores) of the median WI-10 growth reference
- Visible severe wastinge
- Presence of bipedal edema
- Mid-upper arm circumference below 11.5 cm
- This classification is used to identify children at high risk of death.

156. Efficacy of phototherapy is not affected by-

a) Skin pigmentation

b) Type of light used

c) Spectral irradiation by incident light

d) Initial concentration of bilirubin

Correct Answer - A
Answer- A. Skin pigmentation
'Efficacy ofphototherapy depends upon irradiance, surface area exposed, distance from phototherapy unit, initial serum total bilirubin and adequacy of breastfeeding.'- Ghai 7/e pl50

157. An 18 months child weighing 11.5 kg comes to the PHC with fever and respiratory difficulty. On examination, the child is lethargic, with a respiratory rate of 46 bpm and no chest retractions. What is the most appropriate management of this child?

a) Prescribe oral antibiotics, warn of danger signs and send home

b) Intravenous fluids alone

c) Intravenous antibiotics and observation

d) Give intravenous antibiotics and refer to a higher center

Correct Answer - A

Answer- A. Prescribe oral antibiotics, warn of danger signs and send home

This chitd is having fast breathing (respiratory rate >46/minute) withoat danger signs like lower chest wall indrawing or stridon Hence, the child will be classified to have pneumonia (non-severe). So, the child should be prescribed appropriate antibiotic and advise mother about supportive measures and when to return for follow-up.

158. Turricephaly is characterized by?

a) Short skull/Cranium

b) Narrow skull/Cranium

c) Tall skull/Cranium

d) Widened skull / Cranium

Correct Answer - C
Ans. is 'c' i.e., Tall skull/Cranium
Premature fusion of coronal and sagittal sutures leads to a tall, tower-like skull known as turricephaly. Skull looks like a turret or cone shaped
Craniosynostosis

- Turricephaly: There is cone shaped skull due to early closure of coronal, sphenofrontal and frontoethmoidal sutures. It is associated with *Pfeiffer syndrome.*

159. Most common cause of syncope in children?

a) Breath holding spells

b) Hypoglycemia

c) Neurocardiogenic syncope

d) Hypovolemia

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

- "The most common cause of childhood syncope is vasovagal syncope"
- "Autonomic syncope" or "vasovagal syncope" or " vasodepressor syncope" is by far the most common cause of syncope in children, accounting for at least 50 percent of
cases.

- "In susceptible children, pain and emotional stress can trigger vasovagal syncope, which is the most common type" .
- Vasovagal syncope is also known as neurocardiogenic syncope.
- Syncope or fainting is a sudden brief and transient loss of consciousness with atony. Mostly it is due to disturbance in blood flow to the brain.
- Syncope is common in children and most episodes go unnoticed.

160. What is proband in pedigree?

a) Male child of disease

b) Female child of diseased

c) Diseased individual

d) Pregnancy

Correct Answer - C

Ans. is 'c' i.e., Diseased individual

- Pedigree analysis is the analysis of human gene transmission. Pedigree chart is a diagrammatic method of illustrating the inheritance of genes within a family.
- The starting point is often the identification of an affected individual, called the `propositus' or `proband', i.e. propositus or proband is the individual which is studied in a pedigree, such as the individual with a certain disease or other inherited interest.

161. Which of the following is the most likely diagnosis in case of a child with increased cough at night?

a) Pneumonia

b) Asthma

c) Bronchiolitis

d) Laryngomalacia

Correct Answer - B
Ans. is 'b' i.e., Asthma
Variation in intensity of cough
1. Worse in night and early morning → Asthma, Persistent moist
2. Seasonal variation → Asthma, Bronchitis
3. Postural variation → Bronchiectasis, Lung abscess

162. Which of the following does not describe an infant "at risk" ?

a) Third child

b) Birth weight less than 2.5 kg

c) On artificial feed

d) Twins

Correct Answer - A

Ans. is 'a' i.e., Third child

Identification of 'At Risk' Infants

1. Birth weight < 2.5 Kg
2. Twins
3. Birth order 5 or more
4. Artificial feeding
5. Weight below 70% of expected weight (i.e. grade II & III malnutrition)
6. Failure to gain weight during 3 successive months
7. Children with PEM, Diarrhea.
8. Working mother, one parent.
9. Spacing of less than 1 year.

163. For TOF management in antenatal period includes ?

a) Balloon valvotomy

b) Open heart surgery

c) Karyotyping

d) Aspirin

Correct Answer - C

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

- TOF has been associated with untreated maternal diabetes, phenylketonuria, and intake of retinoic acid.
- Associated chromosomal anomalies occur in 30% cases and include trisomies 21, 18, 13 and 22q11 microdeletion, especially in pulmonary atresia and absent pulmonary valve syndrome (APVS).
- There is also a high association with extra - cardiac anomalies in particular, abdominal and thoracic abnormalities.
- When a TOF is diagnosed during fetal life, karyotyping and targeted morphologic ultrasound examination should be offered.
- Isolated TOF → Good prognosis in TOF with pulmonary stenosis (>90% survival after surgery).
- However, other forms of TOF such as pulmonary atresia and absent pulmonary valve syndrome do not have a good prognosis (moderate prognosis for pulmonary atresia and bad prognosis for APVS).

164. Tuft of hair over the lumbosacral region in a new born is suggestive of ?

a) Spina bifida occulta

b) Sinus tract

c) Tumor

d) Any of the above

Correct Answer - D
Ans. d. Any of the above

- Tufts of hair over the lumbosacral spine suggest an underlying abnormality, such as occult spina bifida, a sinus tract, or a tumor.

165. Content of meningocele?

a) Dura mater

b) Spinal cord

c) Brain mater

d) Cauda equina

Correct Answer - A
Ans. is 'a' i.e.,Dura mater
Meningocele

- There is protrusion of meninges (dura mater, arachnoid mater) through a defect in neural arch. This contains only CSF. There may be associated genital tract abnormalities, e.g. vaginal septa and rectovaginal fistula.

166. Umbilical cord becomes black in ?

a) 2-3 days

b) 5-7 days

c) 7-10 days

d) 10-14 days

Correct Answer - A
Ans. is 'a' i.e., 2-3 days

- The cord becomes brownish black within 2 or 3 days after birth.
- It falls off in about 10-14 days.

167. After 3 days of birth, the base of umbilical cord is red and swollen. It indicates ?

a) Normal phenomenon

b) CHF

c) Infection

d) None of the above

Correct Answer - C

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

- Redness or edema at the base of umbilical cord indicate inflammatory changes and infection.
- It is called as omphalitis.

168. In morbus caeruleus foramen ovale closes after -

a) 6 months

b) 2 years

c) 1 year

d) Never

Correct Answer - D

Ans. is 'd' i.e., Never

- In few cases foramen ovale remains patent throughout life give rise to cyanosis, a condition called morbus caeruleus.

169. What is the mechanism of aortic regurgitation in a Case of VSD ?

a) Prolapse of right coronary leaflet

b) Changes in the pressure gradient due to left to right shunt

c) Eisenmengerization

d) Congenital defect

Correct Answer - A

Ans. is 'a' i.e., Prolapse of right coronary leaflet

Ventricular septal defect and aortic regurgitation-pathophysiological aspects and therapeutic consequence.

Aortic regurgitation in VSD

- It is a rare association seen in around 5% of VSDs
- It is due to prolapse of the right coronary or non coronary leaflet of the aortic valve or both
- Common when the defect is in the infundibular septum.

170. MC injury related deaths in pediatrics is due to?

a) Road traffic accidents

b) Homicide

c) Burns

d) Drowning

Correct Answer - A
Ans. is 'a' i.e., Road traffic accidents
Cause of deaths in pediatric population by injuries

- Road traffic accidents -MC
- Drowning -2' MC
- Fire related burns- 3rd MC
- Homicide
- Falls
- Poisoning

171. A child with repeated skin infections presents with a liver abscess. The possible organism is ?

a) S. Mileri

b) B. Fragilis

c) S. Aureus

d) S. Agalactiae

Correct Answer - C

Ans. is 'c' i.e., S. Aureus

- Pyogenic liver abscess is more common in children followed by amoebic and fungal
- Staphylococcus aureus is the most common organism

172. Mastitis in infants ?

a) Treated with antibiotics

b) More common in boys

c) It is a congenital infection

d) Most common organism is E Coli

Correct Answer - A

Ans. is 'a' i.e., Treated with antibiotics

- Mastitis (infection of breast tissue) typically occurs in infants after 2 months of age. During the first 2 weeks of life, it occurs with equal frequency in males and females; thereafter, it is more common in girls, with a female:male ratio of approximately 2:1.
- The majority of cases of neonatal mastitis are caused by Staphylococcus aureus; less common causes include gram-negative enteric organisms (e.g. Escherichia coli, Salmonella), anaerobes, and Group B Streptococcus

173. IQ related genes have recently been found on which chromosome ?

a) Chromosome 21

b) Chromosome X

c) Chromosome 10

d) Chromosome 18

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

- A genomic distribution analysis demonstrated that IQ-related genes were enriched in seven regions of chromosome 7 and the X chromosome.'

174. What is lethal -

a) OX

b) XX

c) OY

d) XXX

Correct Answer - C

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

- Single Y chromosome is not compatible with life.
- XX is normal female genotype
- X0 is Turner syndrome genotype
- XXX is Triple X syndrome genotype

175. Complete deficiency of UDP glucuronyl transferase[UGT] is seen in -

a) Criggler - Najjar type - 1

b) Criggler - Najjar type - 2

c) Gilbert's syndrome

d) Dubin-Jhonson syndrome

Correct Answer - A

Ans. is 'a' i.e.,Criggler - Najjar type – 1

Crigler-Najjar syndrome type 1 (CNS1) is the most severe form of CNS (see this term), a hereditary disorder of hepatic bilirubin conjugation, characterized by severe neonatal unconjugated hyperbilirubinemia due to a complete absence of hepatic bilirubin glucuronosyltransferase (BGT).

- Mutations in the *UGT1A1* gene that cause Crigler-Najjar syndrome result in reduced or absent function of the bilirubin-UGT (bilirubin uridine diphosphate glucuronosyl transferase)enzyme.
- People with CN1 have no enzyme function, while people with CN2 have less than 20 percent of normal function.
- The loss of bilirubin-UGT function decreases glucuronidation of unconjugated bilirubin.

This toxic substance then builds up in the body, causing unconjugated hyperbilirubinemia and jaundice.

176. A renal mass seen on prenatal check up is most probably -

a) Wilm's tumour

b) Mesoblastic nephroma

c) Neuroblastoma

d) Renal sarcoma

Correct Answer - B

Ans. is 'b' i.e., Mesoblastic nephroma

- Enlargement of a kidney on prenatal imaging is usually due to hydronephrosis or a cystic renal enlargement, such as multicystic dysplastic kidney or polycystic kidney disease.
- Solid tumors of the kidneys are rarely seen in the antenatal period, but can be diagnosed by ultrasound. Most common solid tumour is Mesoblastic nephroma

177. Excessive eating of non nutritive substances is called

a) PICA

b) Anorexia nervosa

c) Prune belly disease

d) Dyslexia

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

- **Pica** involves repeated or chronic ingestion of non-nutritive substances, which includes plaster, charwal, clay, wool, ashes, patent & earth

178. Red flag sign in child development if not attained ?

a) Vocalization at 2 months

b) Walking at 12 months

c) Single word at 12 months

d) Standing alone at 16 month

Correct Answer - D

Ans. is 'd' i.e., Standing alone at l6 month

Red flag sign of child development

Milestone	Age
No visual fixation or following by	2 months
No vocalisation	6 months
Not siting without support	9-10 months
Not standing alone	16 months
Not walking alone	18 months
Not single word	18 months
Lack of imaginative play	3 years

179. In mechanical ventilation of a newborn with ARDS, the end tidal volume is kept at ?

a) 5 ml/kg

b) 7 ml/kg

c) 10 ml/kg

d) ls ml/kg

Correct Answer - A

Ans. is'a'i.e., 5 ml/kg

- During mechanical ventilation of newborns, it has been found out that large tidal volumes can lead to lung injury, therefore small tidal volumes are recommended.
- In a healthy newly born tidal volume of 5-8 ml/kg may be used, however it a newbornwith ARDS, a tidal volume of 4-6mlkg k recommended.

180. Most common cause of sore throat in children is ?

a) RSV

b) Rhinovirus

c) Influenza virus

d) Allergic

Correct Answer - B

Ans. is'b'i.e., Rhinovirus

- Rhinovirus is the most common cause of sore throat in children'
- Streptococcus pyogenes is the most common bacterial cause of sore throat/Pharyngitis.

181. Supernumerary teeth most common site ?

a) Maxillary incisor and canine

b) Mandibular incisor and canine

c) Maxillary central incisor

d) Mandibular central incisor

Correct Answer - C

Ans. is'c'i.e., Maxillary central incisor

- The dental lamina produces more than the normal number of buds, supernumerary teeth occur, most often in the area between the maxillary central incisors.
- Because they tend to disrupt the position and eruption of the adjacent normal teeth, their identification by radiographic examination is important

182. Increased oxygen delivery during prematurity causes all except –

a) Vasoconstriction

b) Vasodilation

c) Vaso-obliteration

d) Neovascularisation

Correct Answer - B

Ans. is'b'i.e., Vasodilation

- Oxygen causes tissue injury through the formation of reactive oxygen intermediates and peroxidation of membrane lipids.
- Premature infants, who have severely reduced antioxidant defences, are particularly sensitive to the toxic effects of oxygen.

Supplemental oxygen in premature infants contributes to the development of chronic lung disease characterized by:

- Dysregulated inflammation
- Altered expression ofproteases and growth factors.
- Fibrosis
- Asymmetric aeration
- Respiratory insufficiency
- Vasoconstriction in the retina
- Vaso-obliteration

183. Treatment of Rolandic epilepsy is

a) Phenytoin

b) Lamotrigine

c) Carbamazepine

d) ACTH

Correct Answer - C

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

- Rolandic epilepsy or Benign epilepsy of childhood with centrotemporal spike is one of the epilepsy syndromes of childhood with a good prognosis.
- It occurs between 2-14 years of age (peak at 9- 10 years).
- Clinical features include unilateral tonic clonic contraction oflower face, oropharyngeal symptoms, lack ofneuropathologic lesion and presence of Rolandic foci on EEG.
- BPEC occurs during sleep in 75% of patients.
- Carbamazepine is the preferred drugfor treatment