

Right answers _____ Wrong Answers _____ MARKS OBTAINED out of 100 _____



NNF Doctor's Fellowship October 2020 Exit Examination

Theory Paper 2

Multiple Choice Questions

Roll No _____

Duration 2 hours

Maximum Marks: 100

General Instructions: All Questions are Single response type

Each question carries 1 mark

0.25 marks per wrong answer shall be subtracted

BOOKLET IS TO BE RETURNED BACK FOR EVALUATION

Write the most appropriate answer in the box provided in front of each question

Q1. Which of the following is not a feature of compensated shock

- a. Cold skin
- b. Tachycardia
- c. Oliguria
- d. Change in consciousness

Q2. The recommended timing of fetal echocardiography is

- a. 9 -11 weeks
- b. 12-14 weeks
- c. 15-17 weeks
- d. 18-20 weeks

Q3. Best prenatal prognostic criteria of Congenital diaphragmatic hernia is

- a. LHR on the prenatal ultrasound
- b. Polyhydramnios
- c. Liver in the chest
- d. Observed to expected lung volume on the MRI

Q4. Which of the following is not correct regarding Di- George syndrome

- a. Deletion of 22q11
- b. Associated with conotruncal malformation
- c. Cleft palate
- d. Hypercalcemia

Q5. Which of the following congenital heart disease worsen on PGE1 infusion

- a. Obstructed TAPVC
- b. TGA with VSD
- c. Pulmonary atresia with VSD
- d. Hypoplastic left heart syndrome with PDA

Q6. The recommended SpO2 for a baby on CPAP with an FiO2 40% is

- a. 86 to 90
- b. 91 to 95
- c. 96 to 99
- d. None of the above

Q 7. What is the SAS score if a preterm infant with Respiratory distress has grunt, easily seen nasal flaring, mild sternal recession, abdomen moving up but chest caving in, inter-costal recessions reaching the 4thICS.

- a. 3
- b. 5
- c. 7
- d. 9

Q8. Signs suggestive of RDS on the lung ultrasound are

- a. Double lung point
- b. Sea sand appearance
- c. Thick and blurred pleural line
- d. Barcode sign

Q9. Which is the in-correct chest X ray finding with the diagnosis

- a. Reticulogranularity with low volume lungs (RDS)
- b. Reticulonodularity with pleural effusion (MAS)
- c. Prominent Linear Fissure (Transient Tachypnea of Newborn)
- d. Reticulogranularity with normal lung volume (TGA)

Q10. Regarding transposition of great arteries (TGA), which is not correct

- a. Most cases present during first week of life
- b. Ventricular septal defect is rare in TGA
- c. If not responding to PGE1, balloon atrial septostomy is done to improve mixing of blood
- d. Definitive management is arterial switch operation in early neonatal period

Q11. Which of the following is not correct regarding PGE1 infusion

- a. Maintains patency of duct in duct dependent systemic or pulmonary blood flow
- b. Usual starting dose is 0.05 to 0.1 microgram/kg/min
- c. Most common side effect of PGE1 is fever and apnea
- d. PGE1 infusion causes hypertension

Q12. Which of the following statement is **not** correct regarding supraventricular tachycardia (SVT)

- a. Narrow QRS complex tachycardia
- b. SVT in the neonate is rarely reentrant type
- c. Synchronized cardioversion is the first line of management in hemodynamically unstable patient
- d. Beta blocker is therapy of choice for long term medical therapy in SVT

Q13. Which of the following is not an indication for echocardiography after a pulsox-screening pre-discharge value:

- a. SpO2 <90 on room air
- b. SpO2 of 94 in the right lower limb and 98% in the right upper limb
- c. SpO2>95% in the room air
- d. All the above

Q14. Which of the following is a correct statement?

- a. Antenatal steroids in extreme preterm reduce BPD
- b. Prophylactic surfactant is recommended for all extreme preterm infants in the delivery room
- c. Early caffeine is likely to reduce BPD
- d. Surfactant is recommended for all preterm infants requiring CPAP

Q15. Which one of the following is NOT a criteria for therapeutic hypothermia for perinatal asphyxia?

- A. Agar score <5 at 1 mt
- B. Base deficit at birth more than 12
- C. Presence of neurological abnormality
- D. Organ dysfunction in the infant

Q16. The following are complications of therapeutic hypothermia EXCEPT:

- A. Thrombocytopenia
- B. Tachycardia
- C. Skin injury
- D. Risk for infection

Q17. Which one of the following is an indication for stopping hypothermia therapy?

- A. Uncontrolled coagulopathy
- B. Bradycardia
- C. Electrocardiographic abnormalities
- D. Requiring more than two anticonvulsants

Q18. Which of the following statements reflects evidence from clinical trials regarding nesting in NICU?

- A. Nesting does not impact weight gain in preterm infants during the NICU stay
- B. Nesting promotes earlier discharge from NICU
- C. Regular nesting improves neurodevelopmental outcomes at 2 years
- D. Nesting improves physiological stability for preterm infants on respiratory support

Q19. There is weak evidence for benefit following NIDCAP intervention in NICU in following domains, except

- A. Number of days on ventilation support
- B. Number of days on CPAP
- C. Post-conceptual age at discontinuation of oxygen
- D. Weight gain during hospital stay

Q20. For procedural pain control in the NICU, which of the following statement is evidence-based?

- A. Breast milk is more effective than oral sucrose in reducing pain scores but less effective than oral glucose
- B. Oral sucrose is the most effective and safe compared to breast milk and oral glucose
- C. Breast milk, oral sucrose, and oral glucose have the same effectiveness for reducing pain scores
- D. Oral sucrose has a detrimental side effect profile and should never be used for pain control

Q21. Use of topical proparacaine drops before ROP examination leads to statistically significant improvement in which of the following parameters

- A. Reduced number of patients with increase PIPP score >4 at 1-minute after speculum insertion
- B. Lesser number of patients having apnea events within 24 hours post ROP check
- C. Lesser PIPP score prior to eye examination
- D. None of the above

Q22. Which of the following statements regarding opioid use in neonates is true?

- A. Opioids should be routinely used in all ventilated infants in the NICU
- B. Opioids should never be used for infants on mechanical ventilation
- C. Selective use of Opioids may be considered on an individual basis
- D. Morphine has better efficacy and safety profile than Fentanyl in premature infants

Q23. During blood sampling in term neonates, which of the following interventions is **least painful** based on a systematic review of RCTs?

- A. Venipuncture
- B. Heel lance
- C. Venipuncture with a sweet solution
- D. Heel lance with a sweet solution

Q24. Which of the following interventions was most effective for pain control during circumcision?

- A. Dorsal penile nerve block
- B. Ring block
- C. Topical EMLA

D. Local lignocaine

Q25. Which of the following is considered the methodological most rigorous review that uses quantitative methods?

- A. Systematic review
- B. Narrative review
- C. Overview
- D. Meta-analysis

Q 26. In a meta-analysis of prophylactic Indomethacin versus placebo involving 14 different studies for the outcome of symptomatic PDA, estimated pooled typical Risk Ratio was 0.44 (95% CI 0.38 to 0.50). How much is the pooled estimated relative risk reduction?

- A. 44%
- B. 62%
- C. 56%
- D. 50%

Q27. Newborns with galactosemia seem to be particularly susceptible to infections by which microorganism:

- A. Staph Aureus
- B. Streptococci
- C. Salmonella Typhi
- D. E Coli

Q28. Which of the following WBC parameter has the best sensitivity for neonatal sepsis ?

- A. Absolute Neutrophil count
- B. Absolute band cell count
- C. Total leukocyte count
- D. I-T ratio

Q29. “MAA” program was launched by Mo HFW, Government of India, in August 2016. What is the main goal of the program?

- A. Improve institutional delivery rates
- B. Improve exclusive breastfeeding rates
- C. Improve antenatal steroids coverage rates
- D. Improve universal immunization of mothers

Q30. A 13 day old neonate was found to have polyuria, constipation, irritability, vomiting, increased tone and poor weight gain. Which electrolyte imbalance would be the most likely cause in this neonate?

- A. Hypocalcemia
- B. Hypokalemia
- C. Hypercalcemia
- D. Hyponatremia

Q31. Which of the following is a “critical” item as per Spaulding classification of medical devices with regards to sterilization and disinfection?

- A. Laryngoscope
- B. Umbilical vein catheter
- C. Rectal Thermometer
- D. Pulse oximeter probe

Q32. A sample for Karyotyping for an infant with ambiguous genitalia should be taken in which vial?

- A. Lavender/ pink topped EDTA vial
- B. Green topped Sodium heparin vial
- C. Grey topped Sodium fluoride vial
- D. Red topped Serum vial with clot activator

Q33.In treatment of post hemorrhagic ventricular dilatation, one suggested upper limit of ventricular size before which treatment should be initiated is :

- a. 95th centile + 4 mm
- b. 97th centile + 4 mm
- c. 95th centile + 3 mm
- d. 97th centile + 3 mm

Q34. Benign multifocal clonic seizures that usually occur between 5th to 15th day, with normal EEG and normal neurological outcome is called

- a. Benign neonatal sleep myoclonus
- b. Benign familial neonatal convulsions
- c. Benign neonatal myoclonic seizures
- d. Benign idiopathic neonatal convulsions

Q35. Evidence based interventions to prevent intraventricular hemorrhage in neonates are all except:

- a. Indomethacin
- b. Ibuprofen
- c. Surfactant
- d. Antenatal corticosteroids

Q36.The tetrad of kernicterus include all except

- a. Choreoathetoid cerebral palsy
- b. Sensorineural hearing loss
- c. Limitation of downward gaze
- d. Dental enamel dysplasia

Q37.Following seizure types in neonates have EEG correlates , EXCEPT:

- a. Focal clonic
- b. Focal tonic
- c. Generalized tonic
- d. Subtle seizure

Q38.Of the following, which neonatal seizure type has the worst prognosis

- a. Focal clonic
- b. Motor automatism
- c. Generalized tonic
- d. Focal tonic

Q39.Which among the following epileptic syndromes does not have onset in neonatal period

- a. DRAVET syndrome
- b. Early myoclonic encephalopathy
- c. Otohara syndrome
- d. DEND syndrome

40. Normal Resistive Index values in neonates

- a. < 0.7
- b. <0.8
- c. <0.9
- d. <1.1

Q41.All among the following are neuro protective strategies proposed in HIE except

- a. Therapeutic hypothermia
- b. Erythropoietin
- c. Melatonin
- d. Acetazolamide

Q42. Head growth of Preterm baby after 14 days of postnatal age is:

- a) 1 cm/ week
- b) 0.5 cm/week
- c) 2cm/week
- d) 0.2 cm/week

Q43. Which of the following cause of Hypothyroidism can be missed if we use Primary TSH screen in all new-borns?

- a) Thyroid dysgenesis
- b) Thyroid dyshormonogenesis
- c) Transient hypothyroxinaemia of Prematurity
- d) TSH resistance

Q44. Which class of Maternal diabetes on White's classification has multiple reproductive failures?

- a) R
- b) H
- c) G
- d) F

Q45. A neonate was born with severe glandular hypospadias with undescended testes and bifid scrotum. Resident doctor on duty suspected disorder of sexual development. Rest of the physical examination was normal. On investigations: Karyotype showed XY genotype; Serum electrolytes showed hyponatremia & hyperkalaemia; USG abdomen showed wolffian phenotype with testes; Serum testosterone levels were low. What is the most probable disorder?

- a) 3 β -hydroxysteroid dehydrogenase deficiency
- b) 5 α -reductase deficiency
- c) 17 β -hydroxysteroid dehydrogenase deficiency
- d) Partial androgen insensitivity syndrome

Q46. All of the following drugs can lead to osteopenia of prematurity except:

- a) Frusemide
- b) Caffeine
- c) Steroids
- d) Phenobarbitone

Q47. What should be adequate sound level for best developmental supportive environment in NICU?

- a) Should not exceed 45 dB
- b) Should not exceed 65 dB
- c) Should not exceed 85 dB
- d) Should not exceed 95 dB

Q48. Of the following which sense matures first and should be stimulated most appropriately :

- a. Hearing
- b. Olfactory
- c. Visual
- d. All mature simultaneously

Q49. The best form of multimodal stimulation that satisfies the core principles of Developmental supportive care is:

- a. Massage
- b. Kangaroo mother care
- c. Facilitated tuck
- d. Swaddling

Q50. In the third trimester, the normal rate of protein accretion(g/kg/day) by the fetus is:

- a. 1.1
- b. 1.5
- c. 1.8
- d. 2.2

Q51. The maximum enteral protein intake for extremely low birth weight babies according to ESPGHAN 2010 guidelines is:

- a. 3-3.5 g/kg/d
- b. 3.5-4 g/kg/d
- c. 4-4.5 g/kg/d
- d. 2.5-3.0 g/kg/d

Q52. The major human whey protein present in the human milk is:

a. α -Lactalbumin

b. β -Lactalbumin

c. Lactoferrin

d. Lysozyme

Q53. After what post menstrual age, Fenton's chart are equivalent to WHO growth charts:

a. 36 weeks

b. 40 weeks

c. 46 weeks

d. 50 weeks

Q54. Most accurate USG predictor for gestational age assessment in newborn is:

a) Biparietal diameter

b) Femur length

c) Humerus length

d) Crown to rump length

Q55. A full-term male baby presented on day 7 of life with persistent hypoglycemia. There were frequent episodes of hypoglycemia even on continuous glucose infusion rate (GIR) of 12mg/kg/min. The results of critical sample showed increased insulin levels. The baby was started on oral Diazoxide. After 2 days of therapy, there was no response and treating team was not able to taper GIR. Which of the following genetic mutation testing is warranted now?

a. GLUD 1 gene

b. HNF 4A gene

c. KCNJ11 gene

d. HADH gene

Q56. All of the following are side effects of chronic Diazoxide therapy except:

a. Hypotension

b. Hypertrichosis lanuginosa

c. Pedal edema

d. Thrombocytosis

Q57. All the following are risk factors for developing ROP except:

a. Sepsis

b. Repeated episodes of apnea

c. Poor weight gain

d. Surfactant therapy

Q58. Which of the following statements is true?

a. Human Donor milk is pasteurized to decrease risk of acquiring infection.

b. Pasteurization conserves all immunologic and nutritional properties of human breast milk.

c. The macro-nutrient composition of stored donor milk is comparable to preterm human breast milk.

d. Premature infants receiving donor breast milk have similar rates of weight gain as preterm infants on Preterm formula

Q59. A female baby born at 27 weeks gestation by caesarean section because of worsening PIH and impending preeclampsia. The birth weight is 700 g. Baby required T-piece CPAP in the delivery room and has been stable overnight on less than 30% supplemental oxygen on bubble CPAP. Baby was started on parenteral nutrition upon admission. The baby is now 24 hours old. On the rounds, the fellow resident inquires whether to start feeds or not. Which of these statements reflects a best evidence-based decision related to the initiation of feedings?

a. PN is supplying the infant with all necessary nutrients, hence, enteral feeding should be delayed as there is risk of developing NEC.

b. Feeding should not be initiated as the umbilical line is in-situ.

c. Feeding can be initiated with half strength premature formula .

d. Enteral feedings (10–20 mL/kg/day) with human milk should be initiated.

Q60. A extreme preterm male is born at 25 weeks of gestation. The mother is using electric breast pump to express milk after 4 days of delivery. Which of the following statements regarding the nutrient content of her milk is true?

a. The protein content is lower in the first week and then it increases at 4 weeks of age.

b. Expressed breast milk after 1 week is sufficient to meet all nutrient requirements of that baby.

c. Expressed breast milk has higher calcium and phosphorus than preterm formula.

d. The fat content is lower in the first week and then it increases at 4 weeks of age.

Q61. Which of the following neonatal factors are associated with postnatal growth failure in extremely low birth weight infants?

a. Male gender

- b. Need for respiratory support at 28 days
- c. Necrotizing enterocolitis
- d. All of the above

Q62. A extremely preterm male baby born at 24 weeks of gestation with a birth weight of 625 gram. At day 36 of life, baby is still on Bubble CPAP with fiO_2 requirement of 30%. The current weight of the baby is now 720 grams. The baby is currently on restricted 130 ml/kg /day of human milk for BPD. Which of the following statement regarding the future nutritional strategy for this baby is false:

- a. Continue current management and wait for the respiratory support to wean and then increase feed volume.
- b. Fortify human milk to increase caloric density so that baby receives around 130-140 kcal/kg/d
- c. Investigate and correct anemia, electrolyte abnormalities
- d. Improve development supportive care activities and start kangaroo mother care

Q63. A 29-week gestation infant is on SIMV mode of ventilator with moderate settings. The infant is started on parenteral nutrition providing 4 g/kg/day of amino acids, 10% dextrose, and lipids at 2 g/kg/day. Trophic feeds are started with expressed milk at 20 mL/kg/day with a plan to advance feeds by 20-30 mL/kg/day after 2 days of trophic feeds. Which of the following is correct?

- a. The amino acid/dextrose/lipid infusion amounts should be decreased in amounts equivalent to the advanced enteral feeding nutrient amounts.
- b. PN infusion rates plus enteral feeding volumes should be adjusted to maintain 4 g/kg/day protein intake, plasma glucose concentrations between 50-120 mg/dL and plasma triglyceride concentrations <250 mg/dL.
- c. The amino acid infusion rate should be decreased to 2 g/kg/day to avoid uremia (elevated blood urea nitrogen [BUN]), hyperammonaemia, toxic amino acid concentrations, and adverse neurodevelopmental outcomes.
- d. Total energy intake should be increased to 120 or more kcal/kg/day to meet the protein intake of 4 g/kg/day, using the ratio of 30 kcal per g protein for all protein intake rates.

Q64. Which of the following statements about lipid emulsions is TRUE?

- A. Exclusive soybean oil Intra-lipid contains all of the required fatty acids, anti-inflammatory products, and lack inflammatory substances such as phytosterols.
- B. Phytosterols are important for lipid solubility and thus should be added to all IV lipid emulsions.

C. Fish oil (exclusive or partial) IV lipid emulsions have a higher n-3/n-6 ratio, which may have anti-inflammatory properties that reduce parenteral nutrition-associated cholestatic liver disease (PNALD) and contribute to improved developmental outcomes.

D. Use of Intralipid with mixtures of oils has been proven to improve outcomes.

Q65. Which of following is not a sign of PDA for an infant on ventilator?

- a. Increased oxygen requirement
- b. Increase in PaCO₂
- c. Increased ET secretions
- d. Inappropriate weight gain

Q66. Which of the following is not a component of BIND score:

- a) Mental status
- b) Muscle tone
- c) Cry
- d) Reflexes

Q67. A neonate who has overwhelming neurological illness with unconsciousness, convulsions, and apnoea in the absence of significant hyperammonaemia and acid-base disturbances, and without an apparent symptom free interval is likely to have which of following metabolic disorder:

- A. Organic acidaemia
- B. Maple syrup urine disease
- C. Galactosemia
- D. Non-ketotic hyperglycinaemia

Q68. Choose the wrong statement

- A. Primary energy metabolic defects may manifest in utero also
- B. The majority of metabolic disorders presenting in the neonatal period are autosomal dominant, and thus a history of parental consanguinity can be a helpful clue.
- C. Carnitine supplementation (100 mg/kg/day in four divided doses) is useful in infants with suspected organic acidaemias and fatty acid oxidation defects. while awaiting confirmatory results.
- D. The majority of neonates with transient hyperammonaemia of the newborn (THAN) are preterm infants who have mild respiratory distress syndrome

Q69. Which of these is true of Urea Cycle disorders (UCD) manifesting in neonatal period?

A. A plasma ammonia concentration of 150 $\mu\text{mol/L}$ or higher associated with a normal anion gap and a normal plasma glucose concentration is a strong indication of a UCD

B. A plasma ammonia concentration of 150 $\mu\text{mol/L}$ or higher associated with a raised anion gap and a normal plasma glucose concentration is a strong indication of a UCD

C. A plasma ammonia concentration of 150 $\mu\text{mol/L}$ or higher associated with a reduced anion gap and a normal plasma glucose concentration is a strong indication of a UCD

D. A plasma ammonia concentration of 150 $\mu\text{mol/L}$ or higher associated with a raised anion gap and a low plasma glucose concentration is a strong indication of a UCD

Q70. Mean Airway Pressure (MAP) X Fraction of inspired oxygen (FiO_2) is called

- A. Oxygenation Index
- B. Respiratory Severity Score
- C. Oxygen Saturation Index
- D. Airway Pressure Index

Q71. Causes of in utero passage of meconium include all of the following except.

- A. Multiple Pregnancy
- B. Placental insufficiency
- C. IUGR
- D. Chorioamnionitis

Q72. The major component of pulmonary surfactant is

- A. Saturated phosphatidyle choline
- B. Unsaturated phosphatidyle choline
- C. Neutral lipids
- D. Phosphatidyl glycerol

Q73. Appropriate Tidal Volume in HFO ventilation (VTHf) for MAS is around

- A. 4.5-5.5 ml/kg
- B. 3.5-4.5 ml/kg
- C. 2.5 – 3.5 ml/kg
- D. 1.5 – 2.5 ml/kg

Q74. NeoPROM is a

- A. RCT on Oxygen Saturation Targeting
- B. Metanalysis of Oxygen Saturation Targeting Trials
- C. RCT on Modes of Respiratory Support in RDS
- D. Metanalysis of Modes of Respiratory Support Trials in RDS

Q75. Which of these drugs have been recently found to influence favourably the hemodynamic status of a baby with MAS and PPHN?

A. Budesonide

B. Dobutamine

C. Vasopressin

D. Frusemide

Q76. SIRS secondary to neonatal sepsis is defined by the presence of two or more of the following , EXCEPT?

- a. Fever or hypothermia
- b. Hypotension
- c. Tachypnea or hyperventilation
- d. An abnormally high or low white blood cell count

Q77. A full-term 3.4 kg neonate became lethargic and developed signs of poor perfusion on day 2 of life. All the investigations for sepsis were unremarkable. Which of the following conditions may mimic sepsis :

- a. Ductal-dependent cardiac anomaly
- b. Inborn errors of metabolism
- c. Congenital viral disease
- d. All of the above

Q78. Which of the following maternal and infant characteristics is associated with the development of EOS?

- a. Documented maternal GBS colonization
- b. Prolonged rupture of membranes (ROM) (>18 hours)
- c. Low birth weight (BW) (<2,500 g)
- d. All of the above

Q79. A full-term 37 week 3.2 kg neonate is delivered to a mother with fever, lower abdominal tenderness and foul smelling liquor. Neonate remained stable at birth but developed respiratory distress beginning at 4 hr of life which worsened so much so that neonate had to be mechanically ventilated by 12 hr of life. Chest X ray revealed white out lungs. Which of the following sepsis it could be:

- a. E. coli sepsis
- b. GBS sepsis
- c. Candida sepsis
- d. Klebsiella sepsis

Q80. Blood culture is the gold standard for the diagnosis of neonatal sepsis. However, its positivity rate is low. All of the following factors may affect blood culture positivity rate EXCEPT?

- a. Blood volume inoculated

- b. Prenatal antibiotic use
- c. Skin preparation before obtaining culture samples
- d. Level of bacteremia

Q81. Which of the following agents are recommended for prophylaxis of ophthalmia neonatorum?

- a. Erythromycin ointment
- b. Tetracycline ointment,
- c. Silver nitrate solution
- d. All of the above

Q82. Which formula is used to calculate the “number needed to treat”?

- a) Absolute risk reduction/Relative risk reduction
- b) Relative risk reduction/Absolute risk reduction
- c) 1/ Risk difference
- d) 1/Relative risk reduction

Q83. A preterm neonate is born at 26 weeks with a birth weight of 820 grams, Which of the following may increase the risk of early death?

- a) Delivery room CPAP
- b) Surfactant administration
- c) NIMV
- d) Sustained inflations in delivery room

Q 84. All of the following practices decrease late onset sepsis EXCEPT:

- a. Hand hygiene
- b. Intrapartum prophylaxis against Group B Streptococcus
- c. Human milk feeding
- d. “Bundled” implementation of multiple care practices to prevent central line-associated bloodstream infections (CLABSI)

Q85. The most commonly involved bone in cephalhematoma is :

- A. Frontal
- B. Temporal
- C. Parietal
- D. Occipital

Q86. The mid point of the values after they have been ordered from smallest to largest or from largest to smallest is called:

- a. Mean
- b. Median
- c. Lower quartile
- d. Upper quartile

Q87. Oligohydramnios may be associated with which of the following:

- a. Amnion nodosum
- b. Pulmonary hypoplasia
- c. Urethral atresia
- d. All of the above

Q88. What is most commonly used schedule for therapeutic hypothermia

- a) Core temp 32.5 C for 48 h
- b) Core temp 33.5 for 72 h
- c) Core temp 33.5 for 48 h
- d) Core temp 32.5 C for 72 h

Q89. Constipation may be associated with following, except:

- A. Hirschsprung disease
- B. Hypothyroidism
- C. Anal stenosis
- D. Adrenogenital syndrome

Q90. Minimum small bowel length (measured from ligament of treitz) required for survival is:

- a. 10 cm with intact ileo-caecal valve
- b. 20 cm with intact ileo-caecal valve
- c. 10 cm without ileocaecal valve
- d. 20 cm without ileocaecal valve

Q91. Supravalvular aortic stenosis is most common cardiac association with which of following syndromes:

- A. William
- B. Turner
- C. Alagille
- D. DiGeorge

Q92. Fetal hemoglobin is made up of:

- A. Two pairs of alpha & beta chains
- B. Two pairs of alpha & gamma chains
- C. Two pairs of beta & gamma chains
- D. Two pairs of alpha & epsilon chains

Q93. 1 g of fetal hemoglobin binds to how much of oxygen (ml):

- A. 1.07
- B. 1.17
- C. 1.27
- D. 1.37

Q94. Life span of red blood cells in a full term infant is in the range of:

- A. 30-60

- B. 60-90
- C. 90-120
- D. None of the above

Q95. Following are the Vitamin K dependent coagulation factors, except:

- A. II
- B. VII
- C. IX
- D. XI

Q96. Which of the following test is used to assess the extent of fetomaternal hemorrhage:

- A. Guthrie test
- B. Kleihauer Betke test
- C. Shake test
- D. Methylene blue dye test

Q97. Fetal death is suggested if maternal urinary estriol excretion (mg/dl) is:

- A. <4
- B. 4-8
- C. 9-12
- D. >12

Q98. The fore milk after established lactation is rich in following, except:

- A. Proteins
- B. Carbohydrates
- C. Vitamins
- D. Fats

Q99. The nonprotein nitrogen content in human milk consists of following, except:

- a. Free amino acids
- b. Lactoferrin
- c. Urea, uric acids and ammonia
- d. Creatine and creatinine

Q100. The PRSL- potential Renal solute load (m osm/L) of human milk is: approximately:

- A. 33
- B. 63
- C. 93
- D. 123

