



IAP Neonatology Chapter
IAP Neonatology Fellowship Exam March 2021
Theory Paper 1

Time – 3 hours

Total Marks – 100 (80+20)

- **Attempt all questions**
- **Write in legible handwriting**
- **Write answers to the point. Use appropriate figures**
- **Quote evidence/ studies wherever required**

Question No. 1: Write short notes on: (20 Marks)

- a) Describe the pathogenesis of necrotizing enterocolitis (5)
- b) What is SIP? How do you differentiate it from necrotizing enterocolitis (2+3)
- c) What is NEC reductionism? Describe TANEC (2+3)
- d) Elaborate on interventions to prevent the necrotizing enterocolitis (5)

Question No. 2: Write short notes on: (20 marks)

- a) Non-invasive blood pressure monitoring (5)
- b) Waste management in NICU (5)
- c) Mechanism of therapeutic hypothermia (5)
- d) Janani Shishu Suraksha Karyakram (5)

Question No. 3: Write short notes on: (20 marks)

- a) Antenatal diagnosis of congenital diaphragmatic hernia (5)
- b) Anti VEGF agents (5)
- c) Management of Perinatal HIV (5)
- d) Pulse oximeter screening for CCHD (5)

Question No. 4: Patent ductus arteriosus is a common morbidity among extremely premature neonates.



- a) What are the clinical findings suggestive of a clinically significant PDA? (5)
- b) List the echocardiographic criteria for diagnosis of hemodynamically significant (hs) PDA (6)
- c) Discuss the various approaches to treatment of hsPDA (5)
- d) What is the scope for expectant management of hsPDA based on current evidence? (4)





MCQ's

Attempt all questions. Total Marks =20 (1x20)

- 1. Fetal Alcohol Syndrome facial features are following except**
 - a. A smooth philtrum
 - b. Thin vermilion
 - c. Wide palpebral fissures
 - d. Hypertelorism
- 2. On an air mixed blood gas, which one is true**
 - a. The oxygen level is incorrect, and gets closer to 150
 - b. The carbon dioxide is incorrect and gets closer to 40
 - c. pH is incorrect and gets closer to 7.4
 - d. Both a and b are correct
- 3. Following methods will increase efficacy of phototherapy except**
 - a. LED blue light
 - b. Placing as close as 10 cm
 - c. Increasing intensity by using more phototherapy units
 - d. Use of IV fluids
- 4. Post-natal CMV infection in preterm babies**
 - a. Mode of infection is mostly breast milk
 - b. Blood PCR has highest sensitivity
 - c. Risk of transmission in NICU is low
 - d. Wearing masks is recommended to reduce transmission
- 5. Common causes of early onset neonatal sepsis in India as per NNPD are following, except**
 - a. Klebsiella
 - b. GBS
 - c. Staphylococcus
 - d. E. Coli
- 6. Epinephrine (as per NRP), which one is correct**
 - a. To be used, if heart rate < 60 / minute after 120 seconds of effective ventilation
 - b. Dose is 0.1- 0.3 mL / kg of 1: 1000 solution
 - c. Preferred route is not endotracheal
 - d. Atropine is an alternate choice, in severe bradycardia
- 7. PDA – important ECHO findings that are not true**
 - a. Left atrium is smaller as compared to Aortic valve, LA: Ao ratio is < 1.5
 - b. Absent or retrograde flow in descending aorta



- c. PDA > 1.5 mm at narrowest point
 - d. Unrestrictive pulsatile transductal flow
- 8. G-CSF in neonatal sepsis**
- a. Improves granulocyte count
 - b. Decreases mortality
 - c. Is a drug of choice in Late onset sepsis with neutropenia
 - d. Has serious adverse reactions
- 9. Changes in new NRP**
- a. Viable period extended to 20 weeks gestation
 - b. Resuscitation may be continued to 20 minutes, even if no heart beats are present
 - c. Epinephrine is recommended through ET tube rather than IV
 - d. Chest compression to PPV ratio changes to 15: 1
- 10. Volume limit ventilation in neonates – which one is false**
- a. Decrease in death OR BPD
 - b. Decrease in hypocarbia
 - c. Decrease in pneumothorax
 - d. No decrease in severe cranial ultrasound pathology
- 11. 39 weeks, 3 kg baby born to mother with prolonged rupture of membrane of 30 hrs duration. Baby is asymptomatic after birth. What is the most appropriate management?**
- a. Send blood culture and start on IV antibiotics.
 - b. Send CBC, CRP after birth and start on antibiotics.
 - c. Send CBC and CRP after 6-12 hrs of birth and do not start antibiotics.
 - d. Send CBC and CRP after birth and do not start antibiotics.
- 12. Which of the following statement related to teratogens is not true?**
- a. ACE inhibitors are associated with renal hypoplasia / agenesis
 - b. Lithium is associated with Ebstein anomaly
 - c. Valproic acid is associated with macrocephaly.
 - d. Methimazole is associated with hypothyroidism
- 13. If a neonate is cared under radiant warmer, which of the following is not a mechanism of heat loss?**
- a. Radiation
 - b. Convection
 - c. Evaporation
 - d. Conduction
- 14. VLBW baby should receive their immunization according to the same schedule as term infants, with the exception of which vaccine.**
- a. BCG
 - b. OPV



- c. Hepatitis B
 - d. DPT
- 15. For VLBW baby, which of the following is not a criteria for discharge from hospital.**
- a. Free of apnea for at least 5 days.
 - b. Able to take all feedings by breast/paladai/spoon.
 - c. Able to maintain temperature in an open environment.
 - d. Baby's weight >1500 grams.
- 16. Which of the following is not true for preterm formula milk**
- a. It is casein predominant
 - b. It has 40-50% lactose
 - c. It has 40-50% MCT
 - d. It has higher concentration of protein than term formula
- 17. Which of the following is not associated with increased anion gap acidosis**
- a. Acute renal failure
 - b. Inborn error of metabolism
 - c. Lactic acidosis
 - d. Ileostomy diarrhea
- 18. The most common cause of congenital hydronephrosis accounting for 50-70% is**
- a. Posterior urethral valve
 - b. UPJ obstruction
 - c. Physiologic
 - d. VUR
- 19. The commonest cause of fetal ascites is**
- a. Hydrops fetalis
 - b. Obstructive uropathy
 - c. Fetal heart failure
 - d. Fetal liver failure
- 20. INAP targets include**
- a. NMR < 12 by 2030
 - b. SBR < 12 by 2030
 - c. NMR < 10 in each state by 2035
 - d. KMC for LBW/ Preterm in facility 75% by 2030