

**DOCTOR'S FELLOWSHIP EXAMINATION – October 2020**



**Theory Paper 1**

**ADVANCED NEONATOLOGY, CRITICAL CARE, PERINATOLOGY AND NEONATAL SURGERY**

**Marks: 100**

**Duration: 3 hours**

- Q1: a. Define late preterm , enumerate various complications anticipated in late preterms 5
- b. Mother with 25 weeks pregnancy is expected to deliver - Enumerate the list of anticipated short term and long term concerns to be shared with the family . 5
- Q2. i. Define Extrauterine growth retardation and list various factors responsible for it. 2
- ii. Which growth charts are available to monitor growth of preterms in NICU and which one you will prefer and why 5
- iii. How will you prevent Extrauterine growth retardation. 3
- Q3: Baby is referred at 22 hours of life with a unconjugated serum bilirubin of 15 mg / dL.
- a. What are the likely causes and how will you address the emergency ? 4
- b. Write in brief bilirubin metabolism 4
- c. Write measures to prevent bilirubin encephalopathy, 2
- Q 4. Write in brief :
- i) ADEPT trial 2
- ii) Nested case control study 2
- iii) Equipment and facilities needed to start a 12 bedded level II NICU 4
- iv) Null Hypothesis 2
- Q5. Discuss etiology, pathophysiology and management of acute kidney injury in Neonates. 2+3+5
- Q6. What are various markers of perfusion? Discuss pathophysiology and management of Neonatal septic shock.

Q7. Mother of a baby born at 34 weeks is reported COVID PCR positive in antenatal period:

- i. How and what will you communicate with the family 2
- ii. Write the evidence based delivery room management, Neonatal care and feeding practices 5
- iii. If the baby has respiratory distress, how it will alter your approach 3

Q8: You were called by an obstetrician to attend emergency LSCS of extreme preterm 27wks with EBW of 900 gm due to maternal pre-eclampsia and HELLP syndrome.

- a) Write the delivery room management and surfactant therapy in this case. 5
- b) If intubated which mode of ventilation you would choose and why, and write the weaning strategy. 5

Q9: The hospital infection control committee contacts you to discuss a recent outbreak of a sepsis in the NICU. They are worried that the organisms are multidrug -resistant, and want you and your team to work with them on an Antimicrobial Stewardship Program (ASP) for the NICU.

- a) Discuss how to conduct a situational analysis to plan the ASP. 3
- b) What are the core components of an ASP at the health-care facility level? 3
- c) What is the AWARe classification (World Health Organization) of commonly used antibiotics? Name at least 2 antibiotics in each group 4

Q10. Write short notes on (100- 150 words )

- i. Triple I ( Intra amniotic infection categories) 2
- ii. Role of breast milk analyzer in NICU. 2
- iii. Indications for Palvizumab in NICU 2
- iv. Indications for Platelet transfusion in neonates 2
- v. Enumerate various windows and views in echocardiography 2