

091/20

**The West Bengal University of Health Sciences**  
**M.D. (Paediatrics) March-April, 2020 Examination**

Paper: I

**Full Marks: 100**  
**Time: 3 Hours**

*Attempt all questions*

1. Outline the development of the kidney, ureter and urinary bladder. Describe the renal handling of solutes at the nephron. Mention the renal acidification mechanism. Describe the tests for assessment of tubular function.  
2 + 2 + 3 + 3
2. Draw a diagram describing CSF production and circulation. Discuss the pathophysiology of brain herniation and its clinical correlates.  
5+5
3. With the help of diagrams, show the relationship between pulmonary vascular resistance and lung volume. Describe the Transition physiology following birth and factors which interrupt the normal postnatal transition process.  
5+5
4. Enumerate the duct dependant cardiac lesions. Describe the circulation and hemodynamics in a child with a Tetralogy of Fallot (TOF). What are the acute and late complications in a child with TOF? How will you manage a child with a hypercyanotic spell?  
2 + 2 + 3 + 3
5. Describe the complement pathway and disorders of complement pathway in children?  
5+5
6. What is Antibiotic stewardship? What measures will you take as a Paediatric ICU In-charge to reduce the risk of antibiotic resistance in your ICU.  
5 + 5
7. How will you make an assessment about severity of dehydration in an infant? What are the constituents of hypo-osmolar ORS? How will you manage an infant with acute watery diarrhoea who has not passed urine for past 8 hours and has weak thread pulse?  
3 + 2 + 5
8. Write in brief the assessment of severity of bronchial asthma and pharmacotherapy for management of acute severe asthma?  
5 + 5
9. Describe the perinatal management of an HIV positive mother and her newborn aimed at preventing mother to child transmission of infection? How will you perform confirmatory testing and follow-up the infant?  
5 + 5
10. What are the types of research studies? What are the CONSORT guidelines.  
5 + 5