

**IMMUNO-HEMATOLOGY AND BLOOD TRANSFUSION**

**PAPER-III**

Time: 3 hours  
Max. Marks: 100

IMHT/D/19/15/III

**Important Instructions:**

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

**Write short notes on:**

1. A preterm infant presented with jaundice and anemia. Pediatrician has planned for exchange transfusion. 4+2+4
  - a) Give the guidelines suggested for exchange transfusion for hemolytic disease of preterm neonate within 12 hours of birth.
  - b) What would be the ideal blood group of choice?
  - c) Explain further, other aspects of exchange transfusion in such neonates.
2.
  - a) Discuss in detail the various methods of elution. 7+3
  - b) Add a note on role of enzymes in red cell serology.
3.
  - a) Discuss the factors affecting antigen-antibody reaction. 6+4
  - b) Write briefly about "High Titer and Low Avidity antibodies".
4. Direct Antiglobulin Test (DAT) negative autoimmune hemolytic anemia. 10
5.
  - a) Adjunct therapies in acquired Thrombotic Thrombocytopenia Purpura (aTTP). 5+5
  - b) PLASMIC score for TTP Prediction.
6. Transfusion management in Major ABO mismatch Allogenic Bone Marrow Transplantation recipients. 10
7. Discuss the various manifestations and lab profile of a patient with hemotoxic snake bite. How the blood bank can support such patients? 6+4

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| 8.  | a) In Thalassemia patients on regular transfusion and chelation, what will be the ideal range of iron concentration (mg Fe/g dry weight) suggested to minimize iron deposition in non-storage parenchymal sites and significant toxicity?<br>b) Briefly discuss about non-invasive methods to assess iron overload.<br>c) Explain various steps to minimize such deposition. | 3+3+4 |
| 9.  | a) Discuss Platelet additive solutions and Novel-platelet storage techniques.<br>b) Add a note on modified platelets, platelet substitutes and thrombopoiesis-stimulating agents.  | 5+5   |
| 10. | Liberal versus Restrictive Strategy in transfusion practice.   | 10    |

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**NEUROLOGY**

**PAPER-III**

Time: 3 hours  
Max. Marks:100

NEURO/D/19/23/III

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- *Draw table/diagrams/flowcharts wherever appropriate.*

**Write short notes on:**

1. Management of multidrug resistant CNS tuberculosis. 10
2. Diagnostic approach and management of autoimmune encephalitis. 10
3. Recent advances in the management of acquired demyelinating disorders of the central nervous system. 10
4. Trigeminal autonomic cephalgias. 10
5. Revascularisation strategies in acute stroke. 10
6. Biomarkers of dementia. 10
7. Current role of Optical Coherence Tomography in neurological disorders. 10
8. Genetics of Parkinson's disease with special reference to the Indian context. 10
9. Role of stereo EEG in epilepsy. 10
10. REM Sleep Behavior Disorder: Clinical characteristics, diagnosis, management and significance. 10

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**FAMILY MEDICINE**

**PAPER-III**

Time: 3 Hours  
Max. Marks: 100

FLM/D/19/08/III

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- Draw table/diagrams/flowcharts, wherever appropriate.

**Write short notes on:**

1. An 8-year-old child comes to the OPD with a history of fever for the last 10 days. This was followed by development of pain and swelling in the right ankle joint which subsided and was followed by similar involvement of the left knee joint. Write your approach to the diagnosis and management of this child. What are Jones's criteria? What steps will you take for the primary prevention of this condition? 5+3+2
2. Diagnosis and treatment of nephrotic syndrome in children. 10
3. A 2 kg baby delivered at home by a Dai is brought to your CHC with a history of refusal to feed. The baby is also cold to touch. Describe your approach to the diagnosis and management of this child. 10
4. a) Pneumococcal vaccine in children. 4+2+4  
b) Vaccination in a child with history of seizures.  
c) Chicken pox vaccine.
5. A 5-year-old child is brought to the casualty with a history of unprovoked bite by a stray dog. The dog was reported to have bitten several other people also over the last few days. How will you manage this child? 10
6. A 24-year-old term primigravida patient is brought to the casualty with a history of altered mental status. She is found to be hypertensive and throws a seizure while you are examining her. Describe your evaluation and management of this patient. 10
7. A 19-year-old college student comes to your clinic as she had unprotected sex the previous night and is worried that she would get pregnant. How can pregnancy be prevented in this patient? What advice would you give with regard to safe sex? 5+5

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**FAMILY MEDICINE**

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8. A 50-year-old lady presents to you with irregular periods for the past 6 months. Write briefly on the possible causes, history, physical examination and investigations to assess her. 2+2+3+3
9. Describe the causes, evaluation, and management of bleeding in the first trimester of pregnancy. 10
10. A 48-year-old post-menopausal lady has been getting recurrent UTI for the past few months. Write briefly on the clinical features, investigations and management of this lady. 3+2+5

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**DERMATOLOGY, VENEREOLOGY AND LEPROSY**

PAPER-III

Time: 3 hours

DVD/D/19/06/III

Max. Marks: 100

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**Write short notes on:**

1. Vaginal discharge syndrome: 4+3+3
  - a) Clinical features
  - b) Diagnosis
  - c) Management
2.
  - a) Human papilloma virus subtypes with malignant potential. 1+4+5
  - b) HPV vaccine - current status.
  - c) Management of genital warts.
3.
  - a) Causes and clinical features of balanitis. 6+4
  - b) Management of balanitis.
4.
  - a) Pre-exposure prophylaxis. 5+5
  - b) Muco-cutaneous manifestations of HIV infection.
5.
  - a) Serofast syphilis. 4+3+3
  - b) Endemic syphilis.
  - c) Dhat syndrome.
6.
  - a) Draw a labelled diagram of M. leprae. 3+4+3
  - b) Role of immunity in leprosy.
  - c) Persists in leprosy and their significance.
7.
  - a) Trophic ulcer in leprosy. 4+3+3
  - b) Lazarine leprosy.
  - c) Indeterminate leprosy.
8.
  - a) NLEP: Current status. 5+5
  - b) Eye complications in leprosy.
9.
  - a) Drug resistance in leprosy. 5+5
  - b) Newer anti-leprosy drugs.
10.
  - a) Vaccines in leprosy. 5+5
  - b) Thalidomide.

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