

**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH**  
(A Deemed to be University)

**MBBS Phase II Examination December 2024**

**Time: 180 Minutes**

**Max Marks: 80 Marks**

**Microbiology Paper I**

**QP CODE: C2051**

*Your answer should be specific to the question asked  
Draw neat labelled diagrams wherever necessary*

**Long Essay**

**10 × 2 = 20 Marks**

1. A 10-year-old boy complains of pain in the major joints. On examination, he had skin rash and a cardiac murmur. He also gives history of sore throat in the past 2 weeks duration.
  - a) What is your diagnosis?
  - b) Name the causative agent responsible for this condition
  - c) Describe the pathogenesis of the above condition
  - d) Enumerate the laboratory diagnostic methods
  - e) how do you prevent this infection? (1+1+4+2+2)
2. A foreigner came to India as a tourist. He complains of vomiting and diarrhoea.
  - a. What is the clinical diagnosis?
  - b. Enumerate the agents causing the above clinical condition
  - c. Describe the pathogenesis and laboratory diagnosis. (1+2+4+3)

**Short Essay**

**5 × 12 = 60 Marks**

3. Describe the principle and applications of Autoclave (3+2)
4. Describe the Structure, properties and functions of IgM (2+1+2)
5. Describe the Biological effects of complement (5)
6. Describe the types and applications of ELISA (2.5+2.5)
7. Describe the pathogenesis and complications of Falciparum malaria. (3+2)
8. Describe the morphology, modes of transmission of Human Immunodeficiency Virus (HIV). (2+3)
9. Describe the pathogenesis, clinical features and treatment of Shigellosis (2+2+1)
10. Describe the virulence factors and diseases caused by Helicobacter pylori. (3+2)
11. Describe the pathogenesis and prophylaxis of Measles (2+3)
12. Describe the pathogenesis, clinical manifestations of Toxic shock syndrome. (3+2)
13. Describe the sources, clinical lesions and laboratory diagnosis of Dermatophytes. (1+2+2)
14. Discuss the strategies to improve the Health care delivery.

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**Microbiology Paper II**

**QP CODE: C2052**

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**Long Essay**

**10 × 2 = 20 Marks**

1. A seven-year-old unvaccinated boy presents with history of fever, sore throat and difficulty in swallowing food. On examination, a white membrane is seen over the tonsils, which bleeds on removal.

- What are your differential diagnosis?
- What is the most likely causative agent?
- Describe the pathogenesis of the above clinical condition
- Name the complications of the above disease
- Describe the laboratory diagnosis of the above clinical condition
- What is the prophylaxis of the disease? (2+1+2+2+2+1)

2. 24-year-old woman presents for an antenatal check-up at 20 weeks of gestation. On examination, she has a maculopapular rash on the trunk, extremities and the anogenital area. VDRL test is reactive in 1: 16.

- What is the provisional diagnosis?
- Which test can confirm the diagnosis?
- What are the modes of transmission of this disease?
- Describe the clinical stages of the above clinical condition.
- Describe the laboratory diagnosis of the above clinical condition. (1+2+1+2+4)

**Short Essay**

**5 × 12 = 60 Marks**

3. Describe the laboratory diagnosis of Hemophilus influenzae meningitis

4. Describe the pathogenesis of Tubercular meningitis

5. List the differences between live and killed poliomyelitis vaccines

6. Describe the laboratory diagnosis and prophylaxis of Influenza (2+3)

7. Describe the clinical features and laboratory diagnosis of Paragonimiasis. (2+3).

8. Mention any 4 sites of Extra pulmonary tuberculosis and their laboratory diagnosis. (2+3)

9. Describe the clinical manifestations and laboratory diagnosis of Lymphogranuloma venereum. (3+2)

10. Describe the clinical features and laboratory diagnosis of Brucellosis (2+3)

11. Describe the post exposure prophylaxis in rabies (5)

12. Describe the clinical manifestations and laboratory diagnosis of Cryptococcosis (2+3)

13. Describe the clinical manifestations and complications of SARS COV 2 infection (3+2)

14. Describe the predisposing factors and preventive measures for Surgical site infection (2+3)