

QP CODE : 1031

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 25-Aug-2025

Time: Three Hours

Max. Marks: 100

MICROBIOLOGY – PAPER II (RS-4, RS-5 & RS-6)**Q.P. CODE: 1031****(QP contains two pages)**

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS**2 x 10 = 20 Marks**

1. A farmer presented to outpatient department with history of papulovesicular lesions over the neck region, which later on developed into a coal-black, necrotic wound for the past 3 to 4 days. Gram stain of a tissue from that necrotic area revealed Gram positive bacilli arranged in chains.
 - a) What is clinical diagnosis and causative agent?
 - b) Describe the pathogenesis and various forms of clinical presentation of this infection.
 - c) Describe laboratory investigations to confirm the diagnosis.
2. A 20-year young boy presents to STI Clinic, with history of painful ulcers over genitalia. On examination they were vesicular ulcers with enlarged tender inguinal lymphadenopathy. The Tzanck preparation from the scrapings collected from the base of the lesions showed giant cells with intra nuclear inclusions.
 - a) What is the clinical diagnosis and causative agent?
 - b) Enumerate the organisms causing genital ulcers and briefly mention the differentiating features?
 - c) Add a note on other infections caused by this agent?

SHORT ESSAYS**8 x 5 = 40 Marks**

3. Write briefly about clinical manifestations and laboratory diagnosis of Tubercular meningitis
4. Post exposure prophylaxis of Rabies
5. Primary amoebic encephalitis
6. Ventilator Associated Pneumonia
7. Enumerate the viruses causing respiratory tract infections. Describe the laboratory diagnosis of Influenza Virus
8. Discuss the pathogenesis and laboratory diagnosis of bronchopulmonary Aspergillosis.
9. Bacterial vaginosis
10. Congenital Rubella syndrome

SHORT ANSWERS**10 x 3 = 30 Marks**

11. Enumerate three bacterial agents of acute pyogenic meningitis
12. Expand the following with respect to tuberculosis:
 - a) CBNAAT
 - b) MGIT
 - c) LPA
13. Nipah virus
14. Infective and diagnostic forms of Paragonimiasis
15. Morphology of *Trichomonas vaginalis*
16. Risk factors for Vulvovaginal Candidiasis
17. Mention the vectors of the following diseases
 - a) Dengue
 - b) Kyasanur Forest Disease
 - c) Scrub typhus
18. Prophylaxis of Japanese Encephalitis
19. Enumerate the dimorphic fungi
20. Otomycosis

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Multiple Choice Questions

10 x 1 = 10 Marks

- 21 i) Neonatal meningitis acquired through infected birth canal is due to:
- S.pyogenes*
 - Viridians streptococci*
 - S.agalactiae*
 - S.pneumoniae*
- 21 ii) Zero dose of OPV is given
- At Birth
 - At one month
 - When child is having diarrhea
 - At the age of 2 years
- 21 iii) Which of the following is the most effective way of preventing tetanus?
- Hyperbaric oxygen
 - Antibiotics
 - Tetanus Toxoid
 - Surgical debridement and toilet
- 21 iv) Drug resistance in Mycobacterium tuberculosis is due to:
- Point Mutation
 - Enzymatic action
 - Efflux pumps
 - Modification of binding Protein
- 21 v) Giant cell pneumonia is a complication of infection with which of the following viruses
- Measles virus*
 - Rubella Virus*
 - Mumps virus*
 - Respiratory syncytial virus*
- 22 i) "Malignant pustule" is a term used for:
- An infected malignant melanoma
 - A carbuncle
 - A rapidly spreading rodent ulcer
 - Cutaneous Anthrax
- 22 ii) The best protection will be achieved if first dose of Post Exposure Prophylaxis for HIV is taken within
- 2 hours of exposure
 - 6 hours of exposure
 - 12 hours of exposure
 - 72 hours of exposure
- 22 iii) In a post-operative ward, five patients developed wound infection with the same organism. The best method to prevent cross infection in the same ward is
- Give antibiotics to all other patients in the ward
 - Fumigate the ward
 - Disinfect the ward with sodium hypochlorite
 - Practice hand hygiene measures
- 22 iv) Metal sharp waste should be segregated in which color box?
- Yellow
 - Red
 - Blue
 - White
- 22 v) All the following are Opportunistic fungi **EXCEPT**
- Cryptococcus neoformans*
 - Rhizopus arrhizus*
 - Candida albicans*
 - Histoplasma capsulatum*
