

Rajiv Gandhi University of Health Sciences, Karnataka**MBBS Phase – II (CBME) Degree Examination - 19-Apr-2025****Time: Three Hours****Max. Marks: 100****MICROBIOLOGY – PAPER II (RS-4 & RS-5)****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 20-year-old male was admitted to the hospital with fever, headache, nausea, confusion, restlessness, hallucination and difficulty in swallowing liquids. His friends mentioned that he had been bitten by a street dog two months ago. As the wound was neither deep nor painful, he was not taken to hospital then, instead simple wound cleaning was done at hostel without any medical treatment. After 2 days he developed painful spasm of the respiratory laryngeal and pharyngeal muscles and he died of respiratory failure.
 - a) Draw a neat labelled diagram of causative agent
 - b) Describe the pathogenesis of this condition
 - c) Discuss the laboratory diagnosis.
 - d) Add a note on post exposure prophylaxis for dog bite
2. A 25-year-old male presented to STD clinic with a single, painless genital ulcer of 12 days duration. He had a history of sexual exposure with a commercial sex worker. On examination the penile ulcer was hard and indurated along with inguinal lymph node enlargement. Blood sample was collected and sent for VDRL test. The test was reactive at 1:128 dilution.
 - a) What is your diagnosis and mention the causative agent?
 - b) Enumerate the other causative agents of genital ulcer
 - c) Describe the laboratory diagnostic methods in above case
 - d) Mention the complications of the above condition

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

3. Aseptic meningitis
4. Cryptococcal meningitis
5. Laboratory diagnosis of pulmonary tuberculosis.
6. Enumerate the viruses causing respiratory tract infections. Describe the laboratory diagnosis of viral Influenza
7. Infectious mononucleosis.
8. Neurocysticercosis.
9. Discuss the preventive measures of surgical site infection.
10. Enumerate the oncogenic viruses. Discuss the mechanism of viral oncogenesis

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

11. Enumerate the causative agents of neonatal meningitis
12. Prion diseases
13. Draw a neat labelled diagram of hydatid cyst
14. Hib Vaccine
15. **Loeffler's** syndrome
16. Draw neat labeled diagram of *Aspergillus niger*
17. Preventive measures of sexually transmitted diseases
18. List three causative agents of discharge per vagina
19. Clinical types of human Plague
20. Enlist six opportunistic fungal agents.

Rajiv Gandhi University of Health Sciences, Karnataka

Multiple Choice Questions

10 x 1 = 10 Marks

- 21 i) The most infective stage in whooping cough is
 A. Catarrhal stage
 B. Convalescent stage
 C. Paroxysmal stage
 D. All of the above
- 21 ii) Which of the following parasite does not pass through the lungs during its life cycle
 A. *Strongyloides stercoralis*
 B. *A. duodenale*
 C. *A. lumbricoides*
 D. *T. trichiura*
- 21 iii) Treatment of the sexual partner is generally not required in which of the following infections
 A. Bacterial Vaginosis
 B. Trichomoniasis
 C. Herpes viral infection
 D. Gonorrhea
- 21 iv) Inverted fir tree appearance on gelatin stab culture is a characteristic feature of
 A. *Bacillus anthracis*
 B. *Coxiella burnetii*
 C. *Brucella melitensis*
 D. *Leptospira icterohaemorrhagica*
- 21 v) Which of the following is the most common etiological agent of UTI?
 A. *Escherichia coli*
 B. *Staphylococcus aureus*
 C. *Pseudomonas aeruginosa*
 D. *Enterobacter spp*
- 22 i) Ophthalmia neonatorum is caused by which of the following?
 A. *Listeria monocytogenes*
 B. *Moraxella catarrhalis*
 C. *Neisseria gonorrhoeae*
 D. *Hemophilus influenzae*
- 22 ii) Which of the following is not an agent of non-Gonococcal urethritis?
 A. *Chlamydia trachomatis*
 B. *Candida albicans*
 C. *Gardnerella vaginalis*
 D. *Mycoplasma hominis*
- 22 iii) Which of the following virus possess haemagglutinin but not neuraminidase spikes
 A. *Parainfluenza virus*
 B. *Pneumovirus*
 C. *Measles virus*
 D. *Respiratory syncytial virus*
- 22 iv) All of the following infections are vector borne infections in India **EXCEPT**
 A. Dengue
 B. Chikungunya
 C. Japanese encephalitis
 D. Yellow fever
- 22 v) Drug of choice for rat bite fever
 A. Amikacin
 B. Cephalosporin
 C. Penicillin G
 D. Tetracycline
