

**Rajiv Gandhi University of Health Sciences, Karnataka****MBBS Phase – II (CBME) Degree Examination - 13-Dec-2024****Time: Three Hours****Max. Marks: 100****MICROBIOLOGY – PAPER II (RS-4)****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 30-year-old woman was brought to a hospital from a rural area where she had been admitted with fever, anorexia and vomiting for the past 4 days followed by delirium and hallucination and severe spasms on drinking fluid. Her relatives informed the doctor that she had been bitten by a stray dog about 2 months back.
  - a) What is the most probable etiological diagnosis?
  - b) Draw a neat, labelled diagram of the causative agent
  - c) Discuss the laboratory diagnosis of this condition
  - d) Add a note on prophylaxis of this condition
2. A 5-year-old child was brought to emergency department with high grade fever, pain in the throat, toxic and difficulty in swallowing. On examination, he had enlarged cervical lymph nodes and his tonsillar pillars were covered with greyish white membrane on the tonsils, which started bleeding when touched. His vaccination card revealed incomplete adherence to the immunization schedule.
  - a) What is the clinical diagnosis and its etiological agent?
  - b) Describe pathogenesis of this condition
  - c) Describe laboratory diagnosis of this condition
  - d) Discuss the treatment and prophylaxis for this condition

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

3. Laboratory diagnosis of brucellosis
4. Clinical features and laboratory diagnosis of cryptococcal meningitis
5. Non-gonococcal urethritis
6. Hand hygiene
7. Life cycle of *Paragonimus westermani* and its laboratory diagnosis
8. Mention the causative agents and discuss the laboratory diagnosis of urinary tract infections
9. Pathogenesis and laboratory diagnosis of dengue
10. Prophylaxis and laboratory diagnosis of COVID-19

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

11. Enumerate three bacteria causing meningitis
12. RPR test for syphilis
13. Germ tube test
14. Sequential steps to be followed after a needle stick injury
15. Name three clinical manifestations of Aspergillosis
16. Laboratory diagnosis of *acanthamoeba* keratitis
17. Draw a neat, labelled diagram of *Trichomonas vaginalis*
18. Mention clinical types of human anthrax
19. Enumerate three viral haemorrhagic fevers
20. Name three oncogenic viruses

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## Multiple Choice Questions

**10 x 1 = 10 Marks**

- 21 i) All are prion diseases **EXCEPT**
- Kuru
  - Scrapie
  - Creutzfeldt- Jakob disease
  - Subacute Sclerosing Panencephalitis (SSPE)
- 21 ii) The virus which causes hemorrhagic cystitis, diarrhea and conjunctivitis is
- Adenovirus
  - Poxvirus
  - Parvovirus
  - Papillomavirus
- 21 iii) The causative agent of chancroid
- Haemophilus influenzae*
  - Haemophilus ducreyi*
  - Haemophilus haemolyticus*
  - Haemophilus aphrophilus*
- 21 iv) Consumption of uncooked pork is likely to cause infection by which of the following helminth
- Echinococcus granulosus*
  - Trichuris trichiura*
  - Taenia solium*
  - Taenia saginata*
- 21 v) Kyasanur Forest Disease virus is transmitted by
- Sandfly
  - Aedes mosquito
  - Trombiculid mite
  - Tick
- 22 i) Most common manifestation of *Toxoplasma gondii* in immunocompromised adult
- Lymphadenopathy
  - Chorioretinitis
  - Myocarditis
  - Encephalitis
- 22 ii) Accessory growth factors required by *Haemophilus influenza* is / are
- X factor
  - V factor
  - Both X and V factor
  - M factor
- 22 iii) Most common fungus causing orbital cellulitis in a patient with diabetic ketoacidosis is
- Mucor Spp*
  - Aspergillus Spp*
  - Candida Spp*
  - Cryptococcus neoformans*
- 22 iv) Bipolar staining is characteristic feature of
- Shigella spp*
  - Yersinia pestis*
  - Klebsiella pneumoniae*
  - Proteus spp*
- 22 v) Man is a definitive host in
- Cysticercosis
  - Hydatid cyst disease
  - Toxoplasmosis
  - Intestinal taeniasis

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