

**Rajiv Gandhi University of Health Sciences, Karnataka****MBBS Phase – II (CBME) Degree Examination - 16-May-2022****Time: Three Hours****Max. Marks: 100 Marks****MICROBIOLOGY – PAPER II (RS-4)****Q.P. CODE: 1031****(QP contains three 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 28 yr old male presents to the STD clinic with painless genital ulcer with induration and non tender hard inguinal lymph nodes. He gives history of sexual exposure with a sex worker
  - a) What is the probable clinical diagnosis?
  - b) Mention the causes for ulcerative genital infections
  - c) Discuss the laboratory diagnosis in the above case scenario
  - d) Discuss how to prevent STI
2. A 40 yr old factory worker suffering from fever, cough and loss of sense of smell, since three days. His oxygen saturation was 91%. CT lungs revealed moderate pneumonia. A clinical diagnosis of Covid-19 was made
  - a) Discuss the pathogenesis and laboratory diagnosis of the above
  - b) Discuss the measures to be taken to prevent spread of infection
  - c) Mention other two viruses that cause respiratory tract infection

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

3. Discuss the pathogenesis and laboratory diagnosis of neonatal meningitis
4. MRI scan of brain in a patient with seizures showed cystic lesions. Cysts on surgical removal were oval and had bladder like sac. Name two parasites that cause cystic lesions in brain. Describe the lifecycle of the parasite causing Neurocysticercosis
5. Discuss the advantages and disadvantages of injectable and oral polio vaccine
6. Write a note on Pulmonary aspergillosis
7. Name four viral zoonoses. Add a note on Kyasanur forest disease
8. Pathogenesis and laboratory diagnosis of pneumonia due to Haemophilus influenza
9. Standard precautions in health care delivery
10. Causative agents and laboratory diagnosis of Non-Gonococcal urethritis

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

11. Mention three Arboviral infections
12. Draw neat labelled picture of CSF Gram's stain in pneumococcal meningitis
13. Name two Prion diseases in humans. Mention a method for destruction of Prions
14. Enumerate the three causative agents of white discharge per vagina
15. Mention Three modes of transmission of Brucellosis
16. Vaccines against influenza viruses
17. Name three zoonotic parasitic diseases
18. Importance of counselling of health care worker for Needle Stick Injury
19. Pathogenesis of rabies encephalitis
20. Mention three important predisposing factors for disseminated fungal infections

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**Multiple Choice Questions****10 x 1 = 10 Marks**

21 i) Mechanism of action of tetanospasmin is

- A. Inhibition of cAMP
- B. Inhibition of GABA release
- C. Inactivation of Ach receptors
- D. Inhibition of cGMP

**Key Answer : B. Inhibition of GABA release**

21 ii) Neurological complications following Rabies vaccine is common with

- A. Human diploid cell vaccine
- B. Purified chick embryo vaccine
- C. Semple vaccine
- D. Duck egg vaccine

**Key Answer : C. Semple vaccine**

21 iii) False statement about Schistosoma haematobium is

- A. It causes terminal hematuria
- B. Adult worms reside in vesical and ureteric venous plexus
- C. Chronic infection can lead to bladder carcinoma
- D. Eggs are operculated and has lateral spine

**Key Answer : D. Eggs are operculated and has lateral spine**

21 iv) False about bacterial vaginosis is

- A. Discharge has offensive smell
- B. pH > 4.5
- C. Caused by C. trachomatis
- D. Clue cell is diagnostic

**Key Answer : C. Caused by C. trachomatis**

21 v) Acute laryngotracheo bronchitis (croup) is caused by

- A. Parainfluenza virus
- B. Adeno virus
- C. Influenza virus
- D. Rhinovirus

**Key Answer : A. Parainfluenza virus**

22 i) Bamboo stick appearance in Gram's stain is seen in

- A. Cl. perfringens
- B. B. anthracis
- C. C. diphtheriae
- D. M. tuberculosis

**Key Answer : B. B. anthracis**

22 ii) Which of the following is not a zoonotic parasite?

- A. Naegleria fowleri
- B. Cryptosporidium parvum
- C. Toxoplasma gondii
- D. Echinococcus granulosus

**Key Answer : A. Naegleria fowleri**

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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

- A. Give antibiotics to all other patients in the ward
- B. Fumigate the ward
- C. Disinfect the ward with sodium hypochlorite
- D. Practice hand hygiene measures

**Key Answer : D. Practice hand hygiene measures**

22 iv) Which of the following colour coded bio-medical waste goes for incineration

- A. Red
- B. White
- C. Yellow
- D. Blue

**Key Answer : C. Yellow**

22 v) Which of the following is NOT a clinical form of anthrax?

- A. Malignant pustule
- B. Hide porter's disease
- C. Benign pustule
- D. Wool sorter's disease

**Key Answer : C. Benign pustule**

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