QP CODE : 1031

Rajiv Gandhi University of Health Sciences, Karnataka
MBBS Phase – II (CBME) Degree Examination - 09-Mar-2022

Time: Three Hours

Max. Marks: 100 Marks

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 32 year old female was admitted with dysuria (burning micturation) and increased frequency of micturation from past 2 days. Culture of the urine specimen revealed lactose fermenting clonies on Mac Conkey agar.
   a. What is your clinical diagnosis and probable etiological agents?
   b. What are the risk factors associated, pathogenesis and clinical manifestation of this disease?
   c. How will you treat this clinical condition?

2. 29 year old female came to casusalty with complaints of high-grade fever, severe joint pain, back pain and myalgia. Gradually she developed petechial rashes over the body. On examination, she was found to have jaundice, hepatomegaly and low platelet count (30,000/cmm). A tourniquet test done over cubital fossa shows petechial spots.
   a. What is the clinical diagnosis and how is this disease transmitted?
   b. What is the pathogenesis of this condition?
   c. How will you confirm the diagnosis?
   d. What are the complications of this infection?

SHORT ESSAYS

8 x 5 = 40 Marks

3. Laboratory diagnosis of faucial diphtheria
4. Laboratory diagnosis and prophylaxis of Japanese B Encephalitis.
5. Laboratory diagnosis of syphilis.
6. Clinical manifestation and laboratory diagnosis of Polio.
7. Mucormyosis.
8. Life cycle and laboratory diagnosis of Toxoplasmosis.
9. Laboratory diagnosis of pulmonary Tuberculosis.
10. Laboratory diagnosis and prophylaxis of Covid 19

SHORT ANSWERS

10 x 3 = 30 Marks

11. Significant bacteriuria.
12. Mention three measures to prevent health care associated infection
13. Laboratory diagnosis of Rabies.
14. Describe microscopic features of Aspergillus spp and draw a neat labelled diagram.
15. Laboratory diagnosis of Gonococcal Urethritis.
16. Neurocysticercosis.
17. Counselling of a health care worker who has sustained a needle stick injury
18. Vincent's angina.
19. Describe DPT vaccine and dosage schedules.
20. Name three agents causing bioterrorism

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Multiple Choice Questions

10 x 1 = 10 Marks

21 i) Scarlet fever is caused by
- A. Streptococcus pyogenes
- B. Corynebacterium diphtheria
- C. Streptococcus group C & G
- D. Arcanotobacterium hemolyticum

21 ii) Serotyping and serosubtyping of meningococci are based on
- A. Outer membrane proteins
- B. Endotoxins
- C. Capsular polysaccharide
- D. Transferrin binding proteins

21 iii) A pregnant women needs to be screened for all the following organsims causing congenital infections **EXCEPT**
- A. Adenovirus
- B. Rubella virus
- C. Cytomegalovirus
- D. Toxoplasmosis

21 iv) Not true about Salk vaccine
- A. Expensive than OPV
- B. Not useful in epidemics
- C. Contraindicated in immunocompromised individuals
- D. Booster doses are required

21 v) Kyasanur forest disease is transmitted by
- A. Mite
- B. Louse
- C. Tick
- D. Mosquito

22 i) Hand –foot-mouth disease is caused by
- A. HSV
- B. Coxsackie virus
- C. Measles
- D. Chickenpox

22 ii) All of the following are true about bacterial vaginosis **EXCEPT**
- A. Discharge has offensive smell
- B. pH>4.5
- C. causative agent is Chlamydia trachomatis
- D. Clue cell is diagnostic

22 iii) Haemophilus influenza grows on all of the following media **EXCEPT**
- A. Chocolate agar
- B. Filde's agar
- C. Nutrient agar
- D. Blood agar with S.aureus streak line

22 iv) How much bacillary load in sputum is required for an effective transmission of M.tuberculosis?
- A. 10 bacilli/mL
- B. 100 bacilli/mL
- C. 1000 bacilli/mL
- D. 10000 bacilli/mL

22 v) Analysis of pyogenic meningitis reveals all of the following, **EXCEPT**
- A. CSF pressure – highly elevated
- B. Total leukocyte count – highly elevated, neutrophilic
- C. Glucose – highly elevated
- D. Total proteins – markedly increased