

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
(Deemed to be University)

MBBS DEGREE EXAMINATION – FEBRUARY 2021

Second Year

MICROBIOLOGY - PAPER II

SECTION A

Time: Fifteen Minutes

Maximum: 15 marks

Register Number :

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Signature of the candidate

Signature of the Invigilator

Instructions to the candidates

- 1. Write your Register Number and sign at the place specified on the first page of this Question Booklet.**
- 2. Do not open this question booklet until Invigilator announces the commencement of the examination.**
- 3. Answer ALL the Fifteen questions. They carry equal marks. No negative marking for wrong answers.**
- 4. Answers should be marked legibly in the SHEET provided in capital letters.**
- 5. THE QUESTION BOOKLET SHOULD NOT BE TAKEN OUT OF THE EXAMINATION HALL.**
- 6. Questions should not be copied and taken out of the Examination Hall. Any one found violating this rule shall not be permitted to write the examination and shall be sent out of the Hall.**
- 7. At the end of 15 minutes, when the Invigilator announces 'STOP WRITING' you must stop writing immediately. If the candidate tries to attempt to answer the questions after the prescribed time, their answer script becomes invalid.**
- 8. Hand over the questions booklet containing answer sheet to the invigilator when you finish answering or immediately after 15 minutes.**

MICROBIOLOGY - PAPER II

SECTION-A (15X1-15 MARKS)

(Multiple choice questions)

Time: Fifteen Minutes

Maximum: 15 marks

Select the most appropriate answer and answer in the answer sheet attached:

1. All the following viruses are transmitted by respiratory routes EXCEPT ONE:
 - A. Human papilloma virus
 - B. Rhinovirus
 - C. Covid 2
 - D. Measles virus
2. Each of the following statements concerning HAV is correct EXCEPT ONE:
 - A. The initial site of viral replication is the GIT.
 - B. The diagnosis is usually made by isolating the virus in cell culture
 - C. HAV commonly causes asymptomatic infection in children
 - D. Immunoglobulin is used to prevent the disease in exposed persons
3. All the following are acceptable specimens for the isolation enterovirus EXCEPT ONE.
 - A. Feces
 - B. CSF
 - C. Throat secretions
 - D. Urine
4. In a chronic carrier of hepatitis B virus (HBV), which positive test is most indicative of high infectivity?
 - A. Hepatitis B Surface Antigen (HbsAg)
 - B. Hepatitis B Core Antigen (HbcAg)
 - C. Hepatitis B e Antigen (HbeAg)
 - D. Anti- HBsAg
5. Viruses can be cultured in all except_____?
 - A. Chick embryo
 - B. Blood agar
 - C. Guinea pigs
 - D. Cell culture

(p.t.o.)

6. All of the following statements are true about rodent- borne viral infections, Except?
- A. Caused by bunya viruses and arena viruses
 - B. Hantavirus infections and Lassa fever are major rodent- borne viral infections
 - C. Human to human transmission is possible
 - D. None of the above
7. Each of the following statements concerning hookworm infection is correct EXCEPT:
- A. Hookworm infection can be diagnosed by finding the trophozoite in the stool
 - B. Hookworm infection is caused by *Necator americanus*...
 - C. Hookworm infection can cause anemia
 - D. Hookworm infection is acquired by humans when filariform larvae penetrate the skin
8. The specimen for the diagnosis of *Trichomonas vaginalis* infection in female
- A. Prostatic secretions
 - B. Vaginal discharges
 - C. Urine
 - D. CSF
9. Each of the following statements concerning kala-azar is correct except:
- A. Kala- azar is caused by *Leishmania donovani*
 - B. Kala- azar is transmitted by the bite of sandflies
 - C. Kala – azar occurs primarily in rural latin america
 - D. Kala- azar can be diagnosed by finding amastigotes in bone marrow
10. Four weeks after his arrival from Africa, a 24 – year- old graduate student presents with blood in his urine. Microscopic examination of his urine reveals the presence of eggs with terminal spines. In the interview he admits that he has been working on his family’s rice field occasionally since his early childhood . The most etiologic agent of his complaint is
- A. *Schistosoma mansoni*
 - B. *Schistosoma haematobium*
 - C. *Fasciolopsis buski*
 - D. *Schistosoma japonicum*

11. Which of the following dimorphic fungi is an important human pathogen?
- A. *Cryptococcus neoformans*
 - B. *Blastomyces dermatitidis*
 - C. *Mucor*
 - D. *Aspergillus niger*
12. Which of the following statement is most correct about dermatophytosis?
- A. *Microsporum canis* causes chronic dermatophytosis
 - B. Dimorphic fungi only cause dermatophytosis
 - C. It is the fungal invasion of tissues of hair, skin, and nails
 - D. The most common cause of lung infections
13. All of the following statements are true about dematiaceous fungi, EXCEPT?
- A. They have dark pigments in their cell wall
 - B. Induce a granulomatous reaction
 - C. Formation of conidia in cultures
 - D. Reproduces by sexual process
14. Negative staining is the technique where the background of a specimen is stained whereas positive staining stains the whole specimen. Which dye is required for the negative staining technique?
- A. Crystal violet
 - B. India ink
 - C. Methylene blue
 - D. Iodine
15. Autoclaving and microwaving are done for which of the following types of medical waste
- A. Human anatomical waste
 - B. Recyclable contaminated waste
 - C. Cytotoxic drugs
 - D. Microbiological waste

(Sl.No. M23227)

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MBBS DEGREE EXAMINATION – FEBRUARY 2021

Second Year

MICROBIOLOGY – PAPER II

Time : Three hours

Maximum : 80 marks

Answer ALL Questions

Answer Section A in the Answer Sheet attached to it 15 marks – 15 minutes to be handed over to the invigilator immediately after 15 minutes

Answer Section B in the same answer book

Time : 2 hours 45 minutes

SECTION – B

Maximum : 65 marks

I. Write essays on : (2 x 15 = 30)

1. A patient presented with fever, chill and rigors of 8 day duration, investigation for serological and culture test were negative , clinical advised peripheral smear to identify the organism.
 - a) What is your probable diagnosis? (1)
 - b) What are the 4. differential diagnosis for fever with chills and rigors? (2)
 - c) Name two different type of peripheral smear to identify the malaria parasite (2)
 - d) Discuss human life cycle and pathogenesis of malaria parasite. (6)
 - e) Briefly describe laboratory diagnosis of malaria along with rapid diagnostic test. (4)
2. Define and classify arthropod borne viral diseases. Discuss pathogenesis of dengue Fever. Explain laboratory diagnosis and prevention of dengue. (6+4+3+2)

II. Short notes on : (5 x 5= 25)

3. Classify RNA viruses. Briefly discuss RNA viruses causing pneumonia.
4. Strategies in HIV diagnosis.
5. Mycetoma
6. Life cycle of Ascaris Lumbricoides. Mention two complications.
7. Discuss PVU

III. Answer briefly on : (5 x 2 = 10)

8. MMR vaccine.
9. Tzanck smear.
10. Name two diagnostic test for cryptococcus.
11. Name tissue nematodes
12. Name two important acts of indicators of recent water contamination of potable water.
