# BLDE (DEEMED TO BE UNIVERSITY) MBBS PHASE – II EXAMINATION

Jan-2023,

[Time: 3 Hours]

[Max. Marks: 80]

#### MICROBIOLOGY – PAPER – I OP CODE: 2013

Your answer should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

Each answer should be written on new page only.

Write question number in left side of margin

#### Long Essay: (Answer to be started on fresh page only)

 $2 \times 10 = 20$ 

- 1. A lady presented with passing stools 8-10 times per day, abdominal cramps and tenesmus since 2 days. Stool sample was found to be bloody and mucopurulent. Stool wet mount examination showed many RBCs in roulex and pus cells, did not reveal any pathogens. A non-motile gram negative bacillus was isolated from stool sample and it was not fermenting mannitol.
  - (A) What is the clinical diagnosis and most probable pathogen?
  - (B) Describe pathogenesis
  - (C) Describe laboratory diagnosis
  - (D) Outline the treatment

(1+3+5+1)

2. Describe the pathogenesis, laboratory diagnosis and prevention of Hepatitis B infection.

(3+4+3)

#### Short Essay: (Answer to be started on fresh page only)

 $6 \times 5 = 30$ 

- 3. Classify infectious diseases based on their spread in the community and describe them in brief.
- 4. Blood culture for infective endocarditis.
- 5. Methods of sterilization by moist heat.
- 6. Write a note on immunological surveillance.
- 7. Laboratory diagnosis of Candida albicans infection
- 8. Describe the laboratory diagnosis of Malaria

#### Short Answer: (Leave three lines gap between the answers)

 $10 \times 3 = 30$ 

- 9. Name the different alcohols commonly used as disinfectants with uses.
- 10. Define adjuvant.
- 11. Dermatophytid reaction.
- 12. Functions of Interleukins.
- 13. Define Arboviruses. Give 2 examples.
- 14. NIH swab.
- 15. Rat Bite Fever.
- 16. Oral Polio vaccine.
- 17. Staphylococcal Scalded Skin Syndrome.
- 18. Cutaneous larva migrans.

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#### MICROBIOLOGY - PAPER - II **OP CODE: 2014**

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Long Essay: (Answer to be started on fresh page only)

 $2 \times 10 = 20$ 

1. 3-5 days following a bullet injury, a person developed trismus followed by muscle pain and stiffness, back pain, and difficulty in swallowing. Excised tissue bits from the necrotic depths of the wound revealed gram-positive bacilli with terminal and spherical spores.

a) What is the probable diagnosis of this clinical condition?

b) Describe in detail the pathogenesis and laboratory diagnosis of this condition.

Add a note on vaccination to prevent this condition

- 2. A 32-year-old female was admitted with dysuria (burning micturition) and increased frequency of micturition for the past 2 days. Culture of the urine specimens revealed lactose fermenting colonies on MacConkey agar.
  - a) What is your clinical diagnosis and probable etiolgical agents?
  - b) What are the risk factors associated of this disease?
  - c) Describe the laboratory diagnosis in detail.

d) How will you treat this clinical condition?

(2+2+4+2)

 $6 \times 5 = 30$ 

Short Essay: (Answer to be started on fresh page only) 3. Pulmonary Infections produced by Nontuberculous Mycobacterium

4. Alisha, A 4-year-old girl from Bhubaneswar was brought to the emergency room by her parents due to an acute onset of fever, neck rigidity and altered sensorium for the past 2 days. Physical examination showed that when her neck was passively flexed, her legs also flexed (positive Brudzinski's sign). Direct examination of the CSF showed gram-positive, lanceolate-shaped

diplococci surrounded by a clear halo. a. Identify the clinical diagnosis of this condition and the most likely etiologic agent?

b. How will you confirm the etiological diagnosis in the laboratory? (1+4)

5. A child aged 7 years with high grade fever, toxic, pain in the throat, inability to swallow was brought to the casualty. On examination, a white patch was found on the fauces, which started bleeding when touched. No history of immunization is available.

Name the etiological agent causing this clinical condition.

(1+4)b. Write in detail laboratory diagnosis of this condition.

6. In year 2009, elderly lady presented to emergency with low grade fever and flu-like symptoms of 2 days duration, now progressing to breathlessness, and dry cough. Her grandsons had milder symptoms 2 days ago. CXR was s/o interstitial pneumonia. Lab parameters showed: Total WBC-6000 with 80% lymphocytes

b) Enumerate 2 common etiological agents a) What is the provisional diagnosis?

c) Describe the pathogenesis of the infection that led to a pandemic in 2009 (1+2+2)7. Laboratory diagnosis and treatment of Gonorrhea

8. Describe the clinical features and laboratory diagnosis of human plague

## Short Answer: (Leave three lines gap between the answers)

 $10 \times 3 = 30$ 

- 9. Virulence factors of Bordetella pertussis.
- 10. Name three encephalitogenic arboviruses

11. Significant bacteriuria

- 12. Name 3 Non-fermenter GNB causing pneumonia
- 13. Soft chancre

14. Sabin Feldman Dye test

15. Name the modes of transmission of Bacillus anthracis

16. List the five moments of hand hygiene

17. Name 6 zoonotic infections

17. Name 6 zoonous infections

18. Define Catheter Associated Urinary tract infections. Name 4 causative agents of Surgical site infections

## BLDE (DEEMED TO BE UNIVERSITY)

MBBS PHASE - II EXAMINATION

[Time: 3 Hours]

[Max.Marks: 100]

Jan - 2023

#### MICROBIOLOGY – PAPER - I OP CODE: 2003

Your answer should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

Each answer should be written on new page only.

Write Question No. in left side of margin.

#### Long Essay: (Answers to be started on fresh page only)

2x10=20

1. Define and classify hypersensitivity reactions. Describe type I hypersensitivity reaction in detail.

(2+2+6)

2. Classify Vibrios. Describe pathogenesis and laboratory diagnosis of cholera.

(2+3+5)

#### Short Essay: (Answers to be started on fresh page only)

10x5=50

- 3. Hot air oven
- 4. Mutation
- 5. Pathogenecity of staphylococcus aureus
- 6. Active immunity
- 7. Widal test
- 8. TRIC agents
- 9. Laboratory diagnosis of UTI
- 10. Mechanisms of autoimmunity
- 11. Robert Koch
- 12. Typhus fever

#### Short Answers: (Leave three lines gap between the answers)

10x3=30

- 13. Elek's gel precipitation test
- 14. Malignant pustule
- 15. Name three urease producing bacteria
- 16. Name three enrichment media
- 17. Examples of halophilic vibrios
- 18. Satellitism
- 19. Differences between streptococcus pneumonia & viridans group of streptococci
- 20. Three organisms causing nongonococcal urethritis
- 21. Transduction
- 22. Name diarrhogenic E.coli

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## MBBS PHASE - II EXAMINATION

(REVISED SCHEME)

MICROBIOLOGY - PAPER - II

**QP CODE: 2004** 

[Max.Marks: 100]

Your answer should be specific to the questions asked. Draw neat labeled diagrams wherever necessary. Each answer should be written on new page only. Write Question No. in left side of margin.

## Long Essay: (Answers to be started on fresh page only)

 $2 \times 10 = 20 \text{ marks}$ 

1. Describe the structure of the HIV virus. Describe laboratory diagnosis of HIV. Add a note on prevention.

(3+5+2)

2. Classify nematodes. Describe life cycle and laboratory diagnosis of Ascaris lumbricoides.

(2+4+4)

## Short Essay: (Answers to be started on fresh page only)

 $10 \times 5 = 50 \text{ marks}$ 

- 3. Dimorphic fungi
- 4. Viral inclusion bodies
- 5. Sporotrichosis
- 6. Prions

[Time: 3 Hours]

- 7. Laboratory diagnosis of Dermatophytes
- 8. Universal safety precautions
- 9. Life cycle of Hook worm
- 10. Mycetoma
- 11. Rabies
- 12. Fasciola hepatica

## Short Answer: (Leave three lines gap between the answers)

 $10 \times 3 = 30 \text{ marks}$ 

- 13. Uses of interferons
- 14. Larva Eurrens migrans

15. MMR Vaccine
16. Quantitative buffy coat test (QBC) for malaria.

17. Name four arboviruses prevalent in India

- 18. Loa Loa Name three was bile stained eggs
- 19. Define Pyrexia of unknown origin (PUO) and name two causative agents.
- 20. Name three coccidian parasites Candida albicans
- 21. Draw neat labeled diagram of hydatid eyst: Entamoeb a histolytica trophosoile.
- 22. Define nosocomial infections. Mention two organisms causing it.