

KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES

WARANGAL, TELANGANA STATE – 506 002

MBBS SECOND YEAR DEGREE EXAMINATIONS: AUGUST, 2025

MICROBIOLOGY

PAPER –II

Time: 3 Hours

Max Marks: 100

Note: Answer all questions

Give Diagrammatic representation wherever necessary

Multiple Choice Questions:

10 X 1 = 10

1. Which of the following is not considered a potential agent of bioterrorism and biologic warfare?
 - a) *Yersinia pestis*
 - b) Botulinum toxin
 - c) *Streptococcus pyogenes*
 - d) *Bacillus anthracis*
2. In a patient with bubonic form of plague, all the following specimens are acceptable for diagnosis except
 - a) Stool culture
 - b) Blood culture
 - c) Culture of lymph node aspirate
 - d) Acute and convalescent serum
3. *Staphylococcus epidermidis* may cause:
 - a) Toxic shock syndrome
 - b) Stitch abscess
 - c) Staphylococcal scalded skin syndrome
 - d) All of the above
4. Soft chancre is caused by
 - a) *Treponema pallidum*
 - b) *Neisseria gonorrhoeae*
 - c) *Haemophilus ducreyi*
 - d) *Chlamydia trachomatis*
5. Tissue should be segregated in which colour bag?
 - a) Yellow
 - b) Blue
 - c) Red
 - d) Black
6. Subacute sclerosing panencephalitis is a complication of
 - a) Mumps
 - b) Measles
 - c) Rubella
 - d) Rabies
7. Which of the following is not used as an indicator organism of faecal contamination of water
 - a) *Escherichia coli*
 - b) *Salmonella typhi*
 - c) Faecal *Streptococci*
 - d) *Pseudomonas*
8. Intracellular survival of *Mycobacterium tuberculosis* bacilli inside the macrophage is due to
 - a) Inhibition of entry into host cell
 - b) Inhibition of entry into phagosome
 - c) Inhibition of phagosome and lysosome fusion
 - d) Inhibition of degradation by lysosomal enzymes
9. Cutaneous leishmaniasis is also called as
 - a) Delhi boil
 - b) Aleppo boil
 - c) Baghdad button
 - d) All of the above

- 10.** Gene targets for confirmation of COVID 19 includes
- | | |
|---------------------|---------------------------------|
| a) Spike Protein | b) Envelope protein |
| c) Membrane protein | d) RNA dependent RNA polymerase |

Essay/ Long Answer Questions:

2 X 15 = 30

11.A 55-year-old male came to OPD with complaints of fever, vomiting, severe headache and photophobia since 2 days. On examination he had a temperature of 39° C pulse rate of 96 bpm. He has recently had ear infection. Neck stiffness was noted. Relevant sample was sent for confirmation of the diagnosis.

- Elaborate on the sample collection.
- Gram stain report of the sample revealed lens shaped gram-positive Diplococci with a halo around and plenty of the Polymorphonuclear cells. Identify the probable pathogen.
- Elaborate on laboratory tests done to confirm the pathogen.
- Add a note on Prophylaxis and treatment available for this pathogen.

(3+2+5+5)

12.A farmer presented to the OPD with history of Papulo Vesicular Lesion over the neck. Which later on developed into a coal black, necrotic wound for the past 3 days, tissue from the necrotic area on Gram staining revealed Gram positive bacilli arranged in chains.

- What is the clinical diagnosis and causative agent?
- Describe the pathogenesis and various forms of clinical presentation of this infection.
- Describe the laboratory investigations to confirm the diagnosis.

(2+6+7)

Short Answer Questions:

7 X 6 = 42

- Guinea worm infection.
- Gonorrhoea- pathogenesis and Lab diagnosis
- Laboratory diagnosis of Diphtheria.
- Mumps.
- Extra intestinal amoebiasis.
- Mucormycosis.
- Lab diagnosis of Extra Pulmonary Tuberculosis.

Very Short Answer Questions:

6 X 3 = 18

- Name three Zoonotic Diseases.
- What is the color coding for Biomedical Waste according to BMW management rules 2016.
- Congenital Syphilis.
- DPT Vaccine.
- Name three Microfilaria of medical importance.
- Name three agents causing Ocular Mycoses.
