

**Q.P. Code:138005**

**Reg.No.....**

**First Professional B.S.M.S Degree Supplementary Examinations October 2025  
Nunnuyiriyal (Microbiology)**

**(2021 Scheme)**

**Time: 3 hrs**

**Max. Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers*
- *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**1. Multiple Choice Questions**

**(20x1=20)**

**The responses for MCQ questions (Q.No. i to Q.No. xx) shall be written continuously on the first two writing sheets (ie Page No. 3 & 4) only**

- All the following are components of the cell wall of gram negative bacteria except
  - Peptidoglycan
  - Outer membrane
  - Teichoic acid
  - Lipopolysaccharide
- The organism that require higher amount of carbondioxide for their growth are called
  - Capnophilic
  - Thermophilic
  - Mesophilic
  - Psychrophilic
- The indole test helps to identify enteric bacteria based on
  - The ability of the bacteria to produce gas
  - The ability of the bacteria to produce acid
  - The ability of the bacteria to breakdown amino acid tryptophan
  - All of these
- The sterilization conditions required for autoclave are
  - 121°C temperature for 15 minutes
  - 120°C temperature for 20 minutes
  - 160°C temperature for 2 hours
  - All of the above
- Aminoglycosides inhibits
  - Protein synthesis
  - Nucleic acid synthesis
  - Cell wall synthesis
  - All of the above
- The causative agent of Tinea corporis
  - Trichophyton rubrum
  - Histoplasma capsulatum
  - Candida albicans
  - Rhinosporidium seeberi
- Aflatoxins are produced by
  - Aspergillus flavus
  - Aspergillus parasiticus
  - Aspergillus niger
  - Both (a) and (b)
- Premunition immunity is seen in infection with
  - Spirochete
  - Staphylococcus
  - Streptococcus
  - Enterococcus
- Weil – Felix reaction is based on
  - Auto specificity
  - Iso specificity
  - Species specificity
  - Heterogenetic specificity
- In the alternative pathway C3 proactivator is
  - Factor B
  - Factor D
  - Factor H
  - Factor 1

**(PTO)**

- xi. Which of the following is not an auto immune disorder
  - a) Rheumatoid arthritis
  - b) Syphilis
  - c) Multiple sclerosis
  - d) Grave's disease
- xii. Methicillin resistance in Staphylococci is due to
  - a) Mutation
  - b) Increase in cell wall thickness
  - c) Alternation in Penicillin binding protein
  - d) Enzymatic activity
- xiii. Selective media used for Meningococci is
  - a) Thayer – Martin medium
  - b) Stuart's medium
  - c) Blood agar
  - d) LJ medium
- xiv. The Shigellosis is also called as
  - a) Bacillary dysentery
  - b) Cholera
  - c) Amoebic dysentery
  - d) Diarrhoea
- xv. Drumstick rods are characteristics of
  - a) C.tetani
  - b) C.perfringens
  - c) C.difficile
  - d) C.botulinum
- xvi. Super infection immunity is seen in the case of
  - a) Bacteriophage
  - b) E.coli
  - c) Staphylococcus aureus
  - d) El tor vibrios
- xvii. Which of the following is a contraindication for the Varicella vaccine
  - a) Immunocompromised individual
  - b) Infants
  - c) Pregnancy
  - d) Adult
- xviii. Antigenic shift and drift found in
  - a) Polio virus
  - b) HIV
  - c) Influenza virus
  - d) Psychrophilic
- xix. Koplik's spots are characteristic features of
  - a) Mumps
  - b) Measles
  - c) Rubella
  - d) Herpes
- xx. Which of the following virus has club shaped peplomers and is a respiratory pathogen
  - a) Rota virus
  - b) Corona virus
  - c) Pox virus
  - d) Hepadna virus

### Short Answer Questions

(8x5=40)

- 2. Cell wall
- 3. Structure of antibody
- 4. Mechanism of autoimmunity
- 5. Cholera
- 6. Leprosy
- 7. Cultivation of virus
- 8. Corona virus
- 9. Nosocomial infection

### Long Answer Questions

(4x10=40)

- 10. Define sterilization and disinfection. Discuss the methods of sterilization by dry heat with suitable examples
- 11. Describe the morphology, pathogenesis and laboratory diagnosis of Neisseria meningitidis
- 12. Describe the pathogenesis, clinical manifestations and prophylaxis of Rabies virus
- 13. Discuss in detail about the etiology, pathogenesis and laboratory diagnosis of UTI.

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