

**First Professional B.S.M.S Degree Regular Examinations August 2023****(SIDUG) – 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 Answers to 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

- The organ of adhesion in bacteria is the  
a) Flagella                      b) Capsule                      c) Nucleus                      d) Fimbria
- Bacteria that are unable to synthesize their own metabolites and depend on pre-formed organic compounds are called  
a) Phototrophs                      b) Chemotrophs                      c) Autotrophs                      d) Heterotrophs
- Triple sugar iron medium contains all of the following sugars except  
a) Glucose                      b) Sucrose                      c) Lactose                      d) Maltose
- Endoscopes are sterilized by  
a) Hot air oven                      b) Autoclave                      c) Glutaraldehyde                      d) Phenol
- Which of the following is example of cell wall inhibitors  
a) Penicillin                      b) Cephalosporin                      c) Carbapenems                      d) All of the above
- What is the ring worm of the foot called  
a) Tinea pedis                      b) Tinea capitis                      c) Tinea cruris                      d) Tinea barbae
- Ergot poisoning is produced by  
a) Claviceps species                      b) Coprina species  
c) Aspergillus species                      d) Penicillium species
- Active immunity is not acquired by  
a) Vaccination                      b) Infection  
c) Sub clinical infection                      d) Immunoglobulin transfer
- The earliest immunoglobulin synthesized by the foetus is  
a) IgG                      b) IgA                      c) IgE                      d) IgM
- Biosynthesis of complements takes place at the following sites in the body  
a) Spleen                      b) Liver                      c) Bonemarrow                      d) Both (a) and (b)
- Lens antigens of the eye are a type of  
a) Sequestrated antigen                      b) Neoantigen  
c) Cross reacting antigen                      d) Molecular mimicry
- The capsule of Streptococcus pneumoniae can be demonstrated by  
a) Albert staining                      b) Negative staining  
c) Gram staining                      d) Acid fast staining

**(PTO)**

- xiii. The most common mode of transmission of gonorrhoea is  
 a) Venereal mode    b) Injection            c) Inhalation            d) Blood transfusion
- xiv. Rose spots are characteristic feature of  
 a) Hepatitis            b) Typhoid fever    c) Diarrhoea            d) Plague
- xv. Contamination of umbilical cord leads to  
 a) Diarrhoea            b) Food poisoning    c) Tetanus            d) Infantile botulism
- xvi. The process of transmission of genes between bacteria through bacteriophage is  
 a) Transduction    b) Eclipse            c) Conjugation        d) Transformation
- xvii. Reys's syndrome is associated with  
 a) VZV infection    b) Variola            c) Vaccinia            d) Tana pox
- xviii. Incubation period in human influenza is  
 a) 1 to 3days        b) 8-10days        c) 10 – 15days        d) 30days
- xix. Jeryl – Lynn strain is used for  
 a) Influenza            b) Rubella            c) Mumps            d) Measles
- xx. Which of the following animal species is a natural reservoir for Nipah virus  
 a) Dogs            b) Cats            c) B Rats            d) Pigs

**Short Answer Questions**

**(8x5=40)**

2. Autoclave
3. Coomb's test
4. Alternative complement pathway
5. Plague
6. Anthrax
7. Bacteriophage
8. Antirabbic vaccine
9. AIDS

**Long Answer Questions**

**(4x10=40)**

10. Define and classify hypersensitivity reactions. Describe Type – I hypersensitivity.
11. Describe the morphology, pathogenesis, laboratory diagnosis and prophylaxis of Vibrio cholera
12. Describe the morphology, pathogenesis, laboratory diagnosis and prophylaxis of Corynebacterium diphtheria
13. Describe the transmission, pathogenesis, clinical manifestation, laboratory diagnosis and prophylaxis of Hepatitis B virus.

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