

2 ½ Hours

Total Marks: 75

1. Attempt **all** questions.
2. **All questions** carry **equal** marks.
3. Draw **neat labeled diagrams** wherever necessary.
4. Use of **log tables** and **non-programmable calculator** is **allowed**.
5. For **Q.2, Q.3 and Q.4** attempt A and B **OR** C and D.

Q.1 Do as directed (Any fifteen)

15

1. Infectious diseases that are acquired or developed during a hospital stay are known as _____ infection.
2. Give one example of disease acquired through non-living reservoir.
3. Give one example of normal flora present on skin.
4. State the importance of enzyme hyaluronidase in virulence of a pathogen.
5. What is a passive carrier?
6. _____ are able to cause disease in a normal healthy host with normal host defence mechanism.
7. State one difference between sign and symptom.
8. Name any one antibiotic for treatment of *S. aureus* infections.
9. State role of 'Pneumolysin' produced by *S. pneumoniae*.
10. What do you mean by DOTS?
11. State true or false: *E.coli* serotype O157:H7 does not ferment sorbitol.
12. Name one biochemical test employed for identification of *S. pyogenes*.
13. BCG vaccine is given for protection from disease _____.
14. What is clumping factor?
15. _____ is the toxin produced by *Shigella*.
16. State true or false: Meat products are particularly susceptible to contamination by *Salmonella*.
17. Name the protein produced by gonococcus required for bacteria to adhere to cells lining the urinary and reproductive systems.
18. Name any one antibiotic used to treat gonorrhoea.
19. Define "Teflon pathogen".
20. What are "Gummas"?

Q. 2 A Discuss different mechanisms of invasion by a pathogen for its establishment into host. **08**

Q. 2 B Give a brief account on normal flora of respiratory tract and genitourinary tract. **07**

OR

Q. 2 C Give a brief account on acquisition and transmission of an infectious agent. **08**

Q. 2 D Discuss different portal of exits for pathogens with suitable examples. **07**

Q. 3 A Give an account on various methods for laboratory diagnosis of Tuberculosis **08**

Q. 3 B Discuss various virulence factors of *S. pyogenes* and their role in its pathogenesis **07**

OR

Q. 3 C Elaborate on ETEC **08**

Q. 3 D Describe various screening tests for presumptive diagnosis of Urinary Tract Infections **07**

Q. 4 A Give an account of Causative agent, symptoms and pathogenesis for bacillary dysentery. **08**

Q. 4 B Explain diseases progression in Syphilis. **07**

OR

Q. 4 C Discuss Causative agent, mode of transmission and pathogenesis for Salmonellosis **08**

Q. 4 D Pseudomonas and its role in nosocomial infection **07**

Q. 5 Write Short notes on **any three** of the following **15**

- a. Nosocomial infection.
- b. Toxins produced by *S. aureus*.
- c. Laboratory diagnosis of respiratory infections by *S. pneumoniae*.
- d. Laboratory diagnosis and treatment of syphilis.
- e. Gonorrhoea –its pathogenesis, diagnosis and treatment.