

P25/HSC123/EE/20160523

Time : 3 Hours

Marks : 80

Instruction :

1. All Questions are Compulsory.
 2. Each Sub-question carry 5 marks.
 3. Each Sub-question should be answered between 75 to 100 words. Write every questions answer on separate page.
 4. Question paper of 80 Marks, it will be converted in to your programme structure marks.
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1. Solve any **four** sub-questions.
 - a) Name and describe any five ways of transmission of infectious diseases. 5
 - b) Describe microbial culture and state the types in short. 5
 - c) Explain morphology and pathogenesis of *M. tuberculosis*. 5
 - d) Write note on 'O', 'Vi' and 'H' antigen of *Salmonella*. 5
 - e) Describe molecular detection technique (MAT). 5
2. Solve any **four** sub-questions.
 - a) Describe antimicrobial susceptibility test. 5
 - b) Explain Blood agar in short and its use. 5
 - c) Describe morphology and pathogenesis of *Staphylococci*. 5
 - d) Write short note on Indole Test. 5
 - e) Explain Gram's stain. 5
3. Solve any **four** sub-questions.
 - a) Explain morphology and pathogenesis of *Vibrio*. 5
 - b) Describe optochin sensitivity test. 5
 - c) Explain in short different Spirochetes and enlist its diagnostic techniques. 5
 - d) Write and explain any five colony characteristics. 5
 - e) Classify specific / acquired immunity. 5

4. Solve any **four** sub-questions.
- a) Describe morphology and pathogenesis of Shigella. 5
 - b) Write note on Western Blot Test. 5
 - c) Define fungi and state its physiological characters. 5
 - d) Explain Weil-felix test. 5
 - e) Classify Protozoa with examples. 5

