

2007 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

IV B.TECH I SEMESTER REGULAR EXAMINATIONS,
MOLECULAR PATHOGENESIS
(BIO-TECHNOLOGY)

NOVEMBER 2007

Time: 3 hours
Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. What is genetic diversity? Write the methods to detect genetic diversity in microbial pathogens? [16]
2. What is inflammation? Name the different components / factors which contribute to inflammation and their action. [16]
3. Write short answers for the following: [4+4+4+4]
 - (a) Epitope
 - (b) Affinity of antibodies
 - (c) Polyclonal antibody
 - (d) C3 complement.
4. What is colonization? Write in detail about the steps and mechanism involved in colonization. [16]
5. What are the advantages and disadvantages of cultured cell lines as experimental models? [16]
6. (a) Write the properties of vaccines. [16]
(b) How does vaccination enhance immune system.
7. Explain the mode of action of following antibiotics: [16]
 - (a) Erythromycin
 - (b) Penicillin
 - (c) Rifampacin
 - (d) Streptomycin.
8. What causes Tuberculosis (TB)? Write briefly about the pathogen, pathogenesis, treatment and vaccines for TB.