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Code : 091402

B.Pharm 4th Semester Theory Examination, 2017

Pharmaceutical Microbiology

Time : 3 hours

Full Marks : 70

Instructions :

- (i) *There are Nine Questions in this Paper.*
 - (ii) *Attempt Five questions in all.*
 - (iii) *Question No. 1 is Compulsory.*
 - (iv) *The marks are indicated in the right-hand margin.*
1. Attempt any seven: 2×7=14
- (a) ~~The rigidity of the bacterial cell wall is due to~~
 - (b) Define the term "Invasiveness".
 - (c) ~~Define Disinfection.~~
 - (d) ~~The image obtained in a compound microscope is~~
 - (e) ~~Salt and sugar preserve foods because they.....?~~
 - (f) The virulence of a pathogen is usually measured by
 - (g) Define 'Decimal Reduction Time (D value).
 - (h) ~~Give the application of Acid-Fast stain technique.~~
 - (i) ~~Define 'Transduction'?~~
 - (j) Enlist various methods of sterilization.
2. Why are microorganism stained ? Discuss the various staining technique with their applications.

3. Why is it essential to classify micro-organism? Discuss the general methods of classifying bacteria. 14
4. (a) Draw a typical bacterial cell and identify all parts. 7
 (b) Explain the spore formation in bacteria. 7
5. (a) Distinguish between Phototrophs and chemotrophs. 7
 (b) Is nutrient broth a "universal medium"? Explain. 7
6. (a) What are mutations ? Discuss the various types of mutations. 8
 (b) Discuss the Lac (Lactose) operon model of E.Coli. 6
7. Write a note on (any two):
- (a) Interferon
 (b) Bactericidal and Bacteriostatic
 (c) Drug resistance
8. Discuss the various physical and chemical methods for control of microbes. 14
9. What is Immunity ? Discuss its types. Explain the various defensive mechanism of body. 14
