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Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.-6)
PHARMACEUTICAL MICROBIOLOGY
Subject Code : BPHM-605
Paper ID : [A2268]

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **FIFTEEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **FOUR** questions carrying **TEN** marks each and students have to attempt any **THREE** questions.

SECTION-A**Q1. Answer briefly :**

- a) Define phenol coefficient. What is the significance of a phenol coefficient value of 3?
- b) Discuss the role of saturated and super heated steam in sterilization.
- c) What is mode of action of ionizing radiations?
- d) Classify bacteria proof filter media.
- e) What are zones of inhibition?
- f) Define gram staining.
- g) Explain hour glass devices as sterility indicators.
- h) What is the scope of microbiology in medicine?
- i) What is acid fast staining?
- j) What is acquired immunity?

- k) Why are spores more resistant as compared to vegetative cells?
- l) What is the significance of Z-value?
- m) What are mutations?
- n) Define genotype and phenotype.
- o) What are antigen presenting cells?

SECTION-B

- Q2. Give the importance of negative and positive controls in sterility testing. How will you perform the sterility testing of an ocular ointment?
- Q3. Give applications of ethylene oxide sterilization.
- Q4. Classify microbes giving important features of each class.
- Q5. How would you differentiate bacteria and fungi on the basis of nutritional and cultivation requirements?
- Q6. Explain the working of a laminar flow. What are HEPA filters?

SECTION-C

- Q7. Give sterilisation methods for the following with suitable justification :
 - a) Ascorbic acid injection
 - b) Phenol injection, oily
 - c) Surgical gloves
 - d) Eye ointment
- Q8. Enumerate the methods for evaluation of a disinfectant. Describe any one in detail.
- Q9. Describe the genetic code. Explain briefly the advantages and disadvantages of the universality of human genetic code.
- Q10. Write a note on :
 - a) Principle of microbiological assay of amino acids
 - b) Standardization and storage of Diphtheria vaccine.