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Printed Pages : 2 **PH – 242**

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 5053 Roll No. | | | | | | | | | | |

B. PHARM.

(SEM. IV) EXAMINATION, 2006-07

PHARMACEUTICAL MICROBIOLOGY

Time : 3 Hours] *[Total Marks : 80*

Note : *(1) Answer **all** questions.*
*(2) All questions carry **equal** marks.*

1 Answer any **four** : **4×4**

(a) Describe the structure of capsules in bacteria. What are their functions?

(b) Discuss the general structure of a bacterial cell, with the help of a labelled diagram.

(c) Give one method of classification of bacteria, giving examples.

(d) Discus the scope of indutrial microbiology.

(e) How is an endospore formed in bacteria? How does it differ from an exospore?

2 Answer any **four** : **4×4**

(a) Describe acid fast staining of bacteria.

(b) Discuss the principle of Transmission Electron Microscope (TEM) with the help of a working diagram.

(c) Discuss the cultivation of viruses using tissue culture technique.

(d) Describe the conditions/methods for cultivation of anerobic bacteria.

(e) Classify the methods of isolation of bacteria and discuss any one of them.

3 Answer any **four** : **4×4**

(a) Describe the method A as test procedure in official tests for sterility.

(b) Describe the bacteriological media and test-organisms used in official tests for sterility.

(c) Discuss a method for selecting recombinant bacteria.

(d) Discuss the production of monclonal antibodies.

(e) Define mutation. How do mutations occur in bacteria?

4 Answer any **two** : **8×2**

(a) Discuss the influence of the following factors on efficiency of a disinfectant:

(i) Concentration of disinfectant

(ii) Temperature

Discuss the merits and demerits of phenol coefficient tests.

(b) Discuss the principle, construction and working of a Wet-Heat sterilizer. What are its applications?

(c) Classify disinfectants giving examples. Describe the characteristics of various types of bacteria-proof filter media, giving examples.

5 Write notes on any **four** : **4×4**

(a) Principle of microbiological assay of vitamins

(b) Endotoxins

(c) External Defense Mechanisms

(d) Phagocytosis

(e) Complement system