Time – 2 ½ **Marks - 75**

Q.1 Attempt any two **15**

a Explain the process of the inhibition of nucleic acid and protein synthesis by the antibiotic Streptomycin.

b Write an essay of antibiotics and their mode of action.

c Give a brief account on the biological assay of antimicrobial compounds.

d Describe the process of inhibition of cell wall synthesis in Penicillin.

Q.2 Attempt any two **15**

a What is fermentation? With respect to the same, describe a fermentor.

b State the steps involved in the production of glutamic acid.

c Describe the procedure adopted in the production of Penicillin with the aid of a suitable diagram.

d Write a brief essay on the culturing, extraction and treatment of amylase for industrial production.

Q.3 Attempt any two **15**

a State the systematic position and the thallus structure of *Albugo*.

b Describe the uredospores and telutospores in *Puccinia*.

c State the systematic position of *Xylaria*. Write a note on the section of its stroma.

d Write the systematic position of *Fusarium*. Describe asexual reproduction in the same.

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Q.4 Attempt any two **15**

a State the causal organism, predisposing factors and disease cycle of the Tikka disease of groundnut.

b Describe the chemical methods employed for plant disease control.

c Give a brief account of the predisposing factors, symptoms and control measures of wilt of pigeon pea disease.

d State the biological methods used for the control of plant disease.

Q.5 Attempt any three **15**

a Industrial uses of amylase.

b Chemical assay of an antimicrobial compound.

c History of the discovery of Penicillin.

d Conidia of *Albugo*.

e Dead man's fingers.

f Physical methods used for plant disease control.

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