

**QP Code : 79574**

(2½ Hours)

[ Total Marks : 75

- N.B. :** (1) All questions are compulsory.  
(2) All questions carry equal marks.  
(3) Draw neat labelled diagrams wherever necessary.

1. Attempt any two of the following : 15
- (a) Give the chemical structure of Penicillin and explain how does it inhibit the cell wall synthesis in bacteria.
  - (b) Discuss different targets of antimicrobial drugs in a bacterial cell.
  - (c) Describe tube dilution method for microbial assay.
  - (d) Define chemical assay and explain titration and gravimetric analysis of antimicrobial compound.
2. Attempt any two of the following : 15
- (a) Define a culture medium and give the characteristic features of a culture medium.
  - (b) Give the source and raw materials used in industrial production of Penicillin. Add a note on extraction and purification.
  - (c) Give the source and explain the solid culture method for industrial production of Amylase.
  - (d) Give the source, raw materials used and functions of Glutamic acid.
3. Attempt any two of the following : 15
- (a) Give the systematic position of *Albugo* and describe it's asexual reproduction.
  - (b) Describe the stages of *Puccinia* found on the secondary host.
  - (c) Give the systematic position of *Xylaria* and explain the structure of it's stroma.
  - (d) Write classification of *Fusarium*. Explain asexual reproduction in same.

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**KS-Con. 1059-17.**

4. Attempt any two of the following : 15
- (a) With reference to Tikka disease of groundnut, give causal organism, symptoms and control measures.
  - (b) Describe disease cycle of Wilt of pigeon pea and add a note on it's control measures.
  - (c) Discuss the various chemical control measures of plant diseases.
  - (d) Give an account of physical control methods of plant diseases.
5. Attempt any three of the following : 15
- (a) Describe aerobic fermentation.
  - (b) Write uses of Amylase
  - (c) Describe oogonium of *Albugo*
  - (d) Describe uredial stage of *Puccinia*
  - (e) Explain biological control methods of plant diseases.
  - (f) Give causal organism and symptoms of wilt disease of pigeon pea.
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