

P38/HSC245/EE/20160523

Time : 3 Hours

Marks : 80

Instruction :

1. All Questions are Compulsory.
 2. Each Sub-question carry 5 marks.
 3. Each Sub-question should be answered between 75 to 100 words. Write every questions answer on separate page.
 4. Question paper of 80 Marks, it will be converted in to your programme structure marks.
-

1. Solve any **four** sub-questions.
 - a) Define amino acids. Explain two methods of preparation of amino acids. 5
 - b) Write the scheme for Beckmann rearrangement with suitable example. 5
 - c) Draw the structure of the followings : 5
 - i) Glucose
 - ii) Maltose
 - iii) Ampicillin
 - iv) Alanine
 - v) Phenylalanine
 - d) What is Chemotherapy? Explain the mode of action of B-lactam antibiotics with examples. 5
 - e) What are sulphonamides? Write the synthesis of sulphanilamide. 5
2. Solve any **four** sub-questions.
 - a) What are Quinolone antibacterials? Explain the mode of action. 5
 - b) Write the structure of the following heterocycles. 5
 - i) Imidazole
 - ii) Isoxazole
 - iii) Isoquinoline
 - iv) Pyrimidine
 - v) Thiophene
 - c) What is tuberculosis? Explain the structure and mode of action of Isoniazid. 5
 - d) What are antifungals? Give the examples \bar{C} structures of antifungal antibiotics. 5
 - e) What are Carbohydrates? Explain Mutarotation. 5

3. Solve any **four** sub-questions.
- a) What are proteins? Explain their biochemical role and identification tests for proteins. 5
 - b) What are antiviral agents? Classify with suitable examples. 5
 - c) Write the causes of cancer in detail. Explain the mode of action of antimetabolites with examples. 5
 - d) Draw the structure of the following drugs. 5
 - i) Pyrimethamine
 - ii) Cytarabine
 - iii) Fentanyl
 - iv) Clotrimazole
 - v) 6-thioguanine
 - e) Explain the mode of action, uses and adverse effects of antidepressant drugs. 5
4. Solve any **four** sub-questions.
- a) Draw the structure of any five antipsychotic drugs. 5
 - b) Classify general anesthetic, give mode of action and uses with examples. 5
 - c) What are cholinergic blocking agents? Write the structures of two cholinergic blocking agents. 5
 - d) Define inflammation. Give the mode of action of NSAID with examples. 5
 - e) Write the structures of the following drugs. 5
 - i) Aspirin
 - ii) Paracetamol
 - iii) Mefenamic acid
 - iv) Indomethacin
 - v) Diazepam

