



**RN-003-1015021**

Seat No. \_\_\_\_\_

**B. Sc. (Sem. V) (CBCS) Examination**

**February - 2019**

**IC - 501 : Pharmaceuticals**

**Faculty Code : 003**

**Subject Code : 1015021**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

- Instructions :** (1) Question paper carries total 5 questions.  
(2) All the questions are compulsory & carry 14 marks each.  
(3) Draw labeled diagram wherever necessary.  
(4) Assume suitable data.

- 1 (A) Answer the following questions : 4  
(1) Who was the chairman of second edition of Indian pharmacopoeia?  
(2) A small factory known as "Bengal Chemicals and Pharmaceutical Works" was established in \_\_\_\_\_ city.  
(3) Dry heat sterilization is carried out by using oven: True/False?  
(4) Define: Bactericide
- (B) Answer in brief : (Any **one** out of two) 2  
(1) What is the role of pharmacopoeia ?  
(2) Discuss glass as a packaging material.
- (C) Answer in detail : (Any **one** out of two) 3  
(1) Discuss the need for the dosage form.  
(2) Discuss primary, secondary and tertiary packaging materials.
- (D) Write a note on : (Any **one** out of two) 5  
(1) Explain pyrogen, pyrogen control and pyrogen testing in detail.  
(2) Discuss history of Indian Pharmacopoeia in detail.

- 2 (A) Answer the following questions : 4
- (1) Define: Phytochemicals
  - (2) Abscisic acid is also known as
  - (3) Zeatin is example of \_\_\_\_\_ cytokinins.
  - (4) Alkaloids are basic nitrogenous compounds. True/False?
- (B) Answer in brief : (Any **one** out of two) 2
- (1) Define : (a) Palisade ratio (b) Vein . Islet No.
  - (2) What is Stomatal index?
- (C) Answer in detail : (Any **one** out of two) 3
- (1) Explain microscopic evaluation of crude drug in brief.
  - (2) Write a note on collection of crude drugs.
- (D) Write a note on : (Any **one** out of two) 5
- (1) Discuss classification of crude drugs with examples.
  - (2) Write a detailed note on plant growth regulators.
- 3 (A) Answer the following questions : 4
- (1) Regenerated cellulose is also known as
  - (2) Ideal dressing should be porous to water vapor. True/False?
  - (3) Give IUPAC name of Vanillin.
  - (4) Give two examples of antioxidants.
- (B) Answer in brief : (Any **one** out of two) 2
- (1) Discuss sweetening agent.
  - (2) Define : (a) Suture (b) Ligature
- (C) Answer in detail : (Any **one** out of two) 3
- (1) Write a short note on wound repair.
  - (2) Differentiate among lotion, cream and suspension.
- (D) Write a note on : (Any **one** out of two) 5
- (1) Write a detailed note on emulsion:
  - (2) Discuss : (a) Colouring agent (b) Coating agents

- 4 (A) Answer the following questions : 4
- (1) Carbohydrates are polyhydroxy aldehyde. True/False?
  - (2) Sugar residue is known as
  - (3) Give full form of NSAID.
  - (4) \_\_\_\_\_ is the starting raw material for synthesis of methyldopa drug.
- (B) Answer in brief : (Any **one** out of two) 2
- (1) Give synthesis of Mefenamic acid.
  - (2) Discuss hypertensive agent with example.
- (C) Answer in detail : (Any **one** out of two) 3
- (1) Give synthesis of Paracetamol.
  - (2) Write synthesis of Cyclobarbitone.
- (D) Write a note on : (Any **one** out of two) 5
- (1) Give synthesis of : (a) Talbutal (b) Isoniazid
  - (2) Give synthesis of : (a) Ketoprofen (b) Butobarbital
- 5 (A) Answer the following questions : 4
- (1) Which microorganism is used for converting protein in to peptides?
  - (2) During glucose fermentation, formic acid is finally converted into \_\_\_\_\_ and \_\_\_\_\_.
  - (3) Give any two uses of fermentation process.
  - (4) Enzymes activity is dependent on concentration of substrate. True/False?
- (B) Answer in brief : (Any **one** out of two) 2
- (1) What is industrial microbiology?
  - (2) Write synthesis of Ephedrine used as alkaloid.
- (C) Answer in detail : (Any **one** out of two) 3
- (1) Write a note on preparation of media for cultivation of bacteria.
  - (2) Discuss catabolism of lipids.
- (D) Write a note on : (Any **one** out of two) 5
- (1) Describe manufacturing of penicillin via fermentation method.
  - (2) Explain production of lactic acid with diagram.