PAPER ID-411663

Subject Code: RPH301

Roll No: | | | | | | | | | | | | | |

BPHARM

(SEM III) THEORY EXAMINATION 2021-22

PHARMACEUTICAL CHEMISTRY-IV (HETEROCYCLIC & BIOORGANIC CHEMISTRY)

Time: 3 Hours ***Total Marks: 70***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 14

a.	Draw the structure of Imidazole and pyridine.
b.	Discuss the chemistry of pyrrole.
c.	Define invert sugar with suitable example.
d.	Compare the structure of glucose and fructose.
e.	Define isoelectric point.
f.	Give the example of Nucleotide and Nucleoside.
g.	Discuss the term vitamin.

SECTION B

2. Attempt any *three* of the following: 7 x 3 = 21

a.	Compare the basicity of nitrogen containing heterocyclic compounds.
b.	Describe the open chain structure of D-Glucose.
c.	Discuss solid phase peptide synthesis with its applications.
d.	Explain the structure of nucleic acid.
e.	Illustrate the structure elucidation of ascorbic acid.

SECTION C

3. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Summarize the elecrtophilic substitution reaction of Pyridine.
(b)	Write down the nomenclature of heterocyclic compounds with suitable examples.

4. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Define polysaccharide and write about the structural elucidation of starch.
(b)	Describe the open chain structure of fructose.

5. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Describe end group analysis of proteins.
(b)	Classify amino acids with suitable example. Give the identification test of amino acids.

6. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Classify nucleic acids with suitable example and explain functions of DNA and RNA.
(b)	Write down the reactions of oil and fat.

7. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Describe the term polymer and polymerization. Outline the classification of polymers.
(b)	Classify vitamins and discuss the functions of water and fat soluble vitamins.