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Code : 091302

B.Pharm 3rd Semester Examination, 2016

Pharmaceutical Chemistry-IV

Time : 3 hours

Full Marks : 70

Instructions :

(i) *The marks are indicated in the right-hand margin.*

(ii) *There are Nine questions in this paper.*

(iii) *Attempt Five questions in all.*

(iv) *Question no. 1 is compulsory.*

1. Answer the following questions: 2×7=14

(a) Define nucleophilic aromatic substitution reaction with example.

(b) Define cycloaddition and sigma tropic reactions.

(c) Write the chemical structures of quinolone, pyridine, imidazole and furan.

(d) Define polysaccharides and give at least four examples of polysaccharides.

(e) What is denaturation and re-naturation of protein?

(f) Differentiate between nucleotides and nucleosides with examples.

(g) Define cell membrane lipids with examples.

P.T.O.

2. (a) What is nucleophilic aromatic substitution reaction?
Discuss its reaction and mechanism with suitable
example detail. 8

(b) Write a note on cyclo-addition reaction in brief. 6

3. What are heterocyclic compounds? Give chemistry,
preparations and properties of pyrrole and pyridine.

4+10

4. (a) Define and classify lipids with examples. 8

(b) Write a note on triglycerides with examples. 6

5. (a) What are membrane lipids? Explain it in brief. 7

(b) Define and classify carbohydrates with examples. 7

6. (a) Write the chemical reactions of glucose. 8

(b) Write a note on polysaccharides. 6

7. (a) Classify proteins with examples. 7

(b) Discuss primary and secondary structures of
proteins in detail. 7

8. (a) What are nucleic acids? Discuss DNA structure in
detail. 10

(b) Write a note on nucleotides. 4

9. Write short notes on following : (Any two) 7+7

(a) Electrocyclic reaction

(b) α , β -Unsaturated carbonyl compounds

(c) Nomenclature of heterocyclic compounds
