

**S.Y.B.PHARM. SEMESTER-IV (2011 COURSE) : SUMMER - 2018**  
**SUBJECT : PHARMACEUTICAL CHEMISTRY – VI (ORGANIC)**

Day : **Saturday**  
Date : **21/04/2018**

**S-2018-3957**

Time : **02.00 PM TO 05.00 PM**  
Max. Marks : **80**

**N. B. ;**

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of remaining solve **ANY TWO** questions from each Section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.

**SECTION - I**

**Q. 1** Solve **ANY FIVE** of the following: **(10)**

- a) Anomeric forms of glucose, explain with structure.
- b) Hemiacetal formation of carbohydrates. Explain.
- c) Why sucrose not give tollen's test?
- d) Explain Fehling's solution test of carbohydrates?
- e) Write structure and properties for maltose.
- f) Write structure and properties for Lactose.

**Q. 2** Explain in detail with mechanism and example. Free radical chain reaction and termination of reaction. **(15)**

**Q. 3 a)** How phenylosazone reaction with glucose mannose and fructose gives same product? Explain in detail. **(08)**

**b)** Comment on Fluorination and Iodination of Alkenes. **(07)**

**Q. 4** Write a note on **ANY THREE** of the following: **(15)**

- a) Reducing sugars
- b) Chlorine is more reactive and less selective than Bromine
- c) Hydrogen halides reaction with alkenes by radical mechanism
- d) Mutarotation

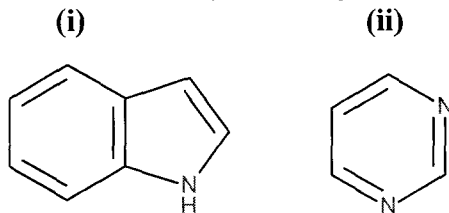
**SECTION - II**

**Q. 5** Solve **ANY FIVE** of the following: **(10)**

**a)** Draw structure and give numbering to following heterocyclic:

**(i)** Imidazole                      **(ii)** Quinoline

**b)** Name the heterocyclic and give the numbering:



**P. T. O.**

- c) Name the corresponding drugs for following heterocycles:  
(i) Pyrimidine            (ii) Indole
- d) Why Indole undergoes electrophilic substitution reaction at 2-position.  
e) Give general mechanism of electrophilic substitution reaction.  
f) How will you synthesize Glycine by phthalimide synthesis?

**Q. 6**            Give any three methods of preparation and three chemical reactions of pyridine and Indole.            **(15)**

**Q. 7 a)** Explain any two methods of preparation of amino acids with examples.            **(08)**

**b)** Give structure, numbering, corresponding drugs and methods of preparation of thiazole.            **(07)**

**Q. 8**            Write a note on **ANY THREE** of the following:            **(15)**

- a) Fischer Indole synthesis  
b) Secondary structure of protein  
c) Skraup synthesis  
d) Biologically important peptide

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