

(A-g) Seat No: _____

No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY

B.Sc. EXAMINATION

SEMESTER - V (NC)

Organic Chemistry (US05CCHE02)

10th May

2016

10/05/2016

Time: 10:30 a.m. to 1:30 p.m.

Organic chemistry

Maximum Marks: 70

Q-1 Choose the correct option for each of the following.

[10]

1. The general formula of peracid is
(a) RCO_2H (b) RCOOH (c) RCOH (d) RCO_3H
2. The intermediate of sommelet rearrangement is known as.....
(a) ylide (b) cation (c) radical (d) betaine.
3. α -halo ketone is converted into acid by the action of
(a) NaOR (b) NaNH_2 (c) ROR (d) NaOH
4. Sulfonamide drugs are used for the control of
(a) cocci infections (b) virus (c) fungi (d) All of these
5. drug helps to reset the thermostat for normal temperature.
(a) antipyretic (b) analgesic (c) antihistamine (d) non of these
6. Heparin is produced by
(a) kidney (b) Brain (c) Heart (d) Liver.
7. (-) form of linalool is occurs in
(a) Rose oil (b) orange oil (c) lemongrass oil (d) camphor oil
8. (5)How many isoprene units are present in limonene?
(a) 2 (b) 3 (c) 4 (d) 5
9. The M. P. of testosterone is
(a) 15.5°C (b) 155°C (c) 115°C (d) 1.55°C
10. Which hormones may cause Jaundice?
(a) Testosterone (b) Oestrone (c) Cortisol (d) Adrenalline

Q-2 Attempt any ten.

[20]

1. Explain: Birch reduction of toluene gives 2,5-dihydrotoluene.
2. How will you prepare witting reagent?
3. How will you prepare per acid? Give example of peracid.
4. Define Drugs. What are the requirements of an ideal drug?
5. Draw the structure of Rifampin with its functions.
6. Discuss the mode of action of antipyretic drugs.
7. What are the chemical properties of terpenoids?
8. List the methods for isolation and separation of terpenoids from the plants.
9. Write the synthesis of terebic acid from ethylacetoacetate.
10. Explain the terms hormones.
11. Differentiate between hormones and vitamins.
12. Define α , β - unsaturated carbonyls compounds and give its two examples.

①

(P.T.O.)

Q-3 Attempt the following.

- (a) Discuss Crigee – Kasper mechanism of Baeyer – Villager Oxidation reaction. [05]
- (b) Write mechanism of Mannich Reaction. [05]

OR

Q-3 Attempt the following.

- (a) Complete the following reaction and suggest appropriate mechanism for it. [05]
 $\text{Benzyltrimethylammoniumiodide} + \text{NaNH}_2 \longrightarrow ?$
- (b) Explain: In an unsymmetrical benzils the aryl group with electron donating group migrates faster than simple aryl group. [05]

Q-4 Attempt the following.

- (a) Write the synthesis, class and uses of the following drugs. [06]
(i) Phenobarbitone (ii) PAS
- (b) Write the synthesis for the following [04]
Drug used in the treatment of urticaria.

OR

Q-4 Attempt the following.

- (a) Write the synthesis, class and uses of the following drugs. [06]
(i) Chloroquine (ii) Miracil – D
- (b) Write the synthesis for the following [04]
Drug used as dusting powder for wounds and ulcers.

Q-5 Attempt the following.

- (a) Give the importance of following reagents for the structure elucidation of terpenoids. [05]
(i) Sodium hypodlite (ii) phenylhydrazine.
(iii) ozone (iv) H_2/pd .
- (b) Discuss the isomerism in citral. [05]

OR

Q-5 Attempt the following.

- (a) Out line synthesis for the following. [05]
Citral using 3 – methyl – 1 – butanol via Arens – Van Dorp's synthesis.
- (b) Discuss Wallach's oxidative degradation of α – terpeniol. [05]

Q-6 Attempt the following.

- (a) How will you determine the presence of keto group, position of phenolic (-OH) group and steroid nucleus in oestrone? Also write the Hughes et al synthesis of oestrone. [10]

OR

Q-6 Attempt the following.

- (a) Discuss electrophilic and nucleophilic addition on α, β – unsaturated carbonyl compounds with mechanism. [10]

— X —
(2)