

Vitthalbhai Patel & Rajratna P. T. Patel Science College
Vallabh Vidyanagar
B. Sc. (Semester-V)

Subject : ORGANIC CHEMISTRY (US05CCHE02)

Date : 30-09-2016 Internal Test – September, 2016 Marks : 25

Day : Friday Time : 11.00 a.m. to 12.30 p.m.

Note: (i) All questions are to be attempted. (ii) Figures to the right indicate marks.

Q.1 Choose the correct option for the following : [3]

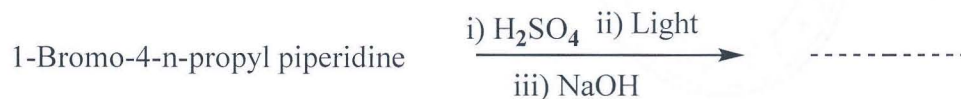
- (i) α -bromoketone is converted into by the action of NaOH.
(a) ester (b) amide (c) carboxylic acid (d) amine.
- (ii) Substance, which is CNS depressant but produces sleep, is known as
(a) anticonvulsant (b) sedative (c) hypnotics (d) none of these.
- (iii) Which hormones may cause Jaundice ?
(a) testosterone (b) Oestrone (c) Cortisol (d) adrenaline.

Q.2 Answer the following (Attempt any two) : [4]

- [A] State Perkin condensation reaction using suitable illustration.
[B] Define Drugs. What are the requirements of an ideal drugs ?
[C] Differentiate between hormones and vitamins.

Q.3 Do as directed : [6]

- [A] Complete the following reaction, give its name and suggest appropriate reaction mechanism involved in it.



- [B] Discuss Beckmann rearrangement. Show that Beckmann rearrangement is highly stereospecific.

OR

Q.3 Do as directed : [6]

- [A] Complete the following reaction, give its name and suggest appropriate reaction mechanism involved in it.



- [B] Prove that in Mannich reaction, out of two $-\text{CH}_2-$ groups of a Mannich base, one of them is coming from formaldehyde.

Q.4 Write synthesis for the following : [6]

- [A] Drug popular as German penicillin.
[B] Drug used for the treatment of cholera.
[C] Drug used as antihistamine.

OR



P.T.O.

Q.4 Answer the following :

[6]

- [A] Discuss the mode of action of Sulpha Drug.
[B] Give classification of Drugs.

Q.5 Answer the following :

[6]

- [A] How will you determine the presence of steroid nucleus and keto group in the structure of oestrone ?
[B] Differentiate between electrophilic addition and nucleophilic addition reaction on α, β -unsaturated carbonyl compounds.

OR

Q.5 Answer the following :

[6]

- [A] Write synthesis of testosterone from cholesterol by Ruzicka and Butenandt.
[B] Discuss Michal addition reaction with suitable illustration.

