

V. P. AND R. P. T. P. SCIENCE COLLEGE
VALLABH VIDYANAGAR
B. Sc. INTERNAL EXAMINATION- 2014 (VIth SEMESTER)
SUBJECT : ORGANIC CHEMISTRY
COURSE CODE : US06CCHE01

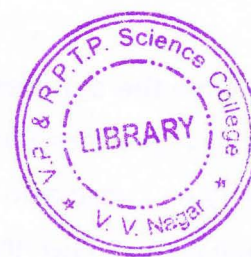
DATE : 10-03-2014
DAY : MONDAY

TIME : 3.30 p.m. TO 5.00 p.m.
TOTAL MARKS : 30

Q. 1 ANSWER THE FOLLOWING (ANY THREE)

6

- (i) Give the synthesis of 2-napthylamine from napthalene.
- (ii) Napthalene contains two fused benzene rings.
- (iii) Allylic system has special stability.
- (iv) Give the difference between exo and endo.
- (v) Give the requisites for a true dye.
- (vi) Define: Reducing sugars. Give at least two name of reducing sugar and non reducing sugar.



Q. 2 ANSWER THE FOLLOWING

- (i) Draw all the resonance hybrid structures for phenanthrene and anthracene. 4
- (ii) Give the name of few carcinogenic hydrocarbons and how do they induce cancer? 4

OR

Q. 2 ANSWER THE FOLLOWING

- (i) Nitration of napthalene takes place mainly at α -position exclusively. 4
- (ii) Give the synthesis of 1,4,6-trimethyl napthalane from benzene using any aliphatic and inorganic reagents. 4

Q.3 ANSWER THE FOLLOWING

- (i) What are the pericyclic reactions? Write the characteristics of pericyclic reaction. 3
- (ii) Predict the product and give appropriate stereochemistry. 5
 - (a) Trans-5,6-dimethyl-1,3-cyclohexadiene + heat \rightarrow ?
 - (b) 1,3-butadiene + light \rightarrow ?

OR

[P.T.O.]



Q. 3 ANSWER THE FOLLOWING

- (i) Giving suitable example, discuss the Diels-Alder reaction with favourable condition. 4
Which class of pericyclic reaction it belongs to?
- (ii) [2+2] cycloaddition is thermally difficult but [4+2] cycloaddition is thermally easy. 4

Q. 4 ANSWER THE FOLLOWING

- (i) Give supporting facts for Cyclic structure of D-(+)-glucose. 4
- (ii) Give the characteristics properties of fluorescent brighteners. 4

OR

Q. 4 (i) Give the synthesis of following

- (a) D-(+)-Glucose from (-)-arabinose. 2
- (b) D-(-)-Lactic acid from D-(+)-Glyceraldehyde. 2
- (ii) What is dye? Give the synthesis and applications of dye which used for coloring food from the cheapest raw material. 4

THE END