



# V. P. & R. P. T. P. SCIENCE COLLEGE

B. Sc. (Semester - VI) Examination

INDUSTRIAL CHEMISTRY

5<sup>th</sup> March 2019, Tuesday

COURSE NO: US06CICH01 (SYNTHETIC DYES AND INTERMEDIATES)

TIME: 10:00 TO 12:00

TOTAL MARKS - 50

Q.1 Answer the following MCQs

(08)

- The groups which leads to the color appears in organic substance called:  
A. Chromophores. C. Neutral groups.  
B. Auxochromes. D. All of them.
- Exhaustion means:  
A. The dye have the same depth at all parts of the fiber.  
B. Transfer of dye from dye bath to the fiber.  
C. Addition of acid to the dye bath.  
D. All of them
- Azo-dyes are formed in....  
A. One step. C. Three steps.  
B. Two steps. D. Four steps.
- Orange II is prepared by coupling of diazonium salt of Sulphanilic acid with....  
A. Alpha Naphthol. C. Phenol.  
B. Beta Naphthol. D. None of them
- Oxidation of 2 mole of Indoxyl gives:  
A. Indican. C. Indoxylic acid.  
B. Indigotin. D. None of them
- Procion is the class of dye....  
A. Acid Dye C. Mordant Dyes  
B. Reactive Dyes D. Direct Dyes.
- Estiamtion of beta-naphthol is performed in.....  
A. Acidic pH C. Neutral pH  
B. Basic pH D. Any pH
- Estimation of Azo dye involved .....
- A. Reduction reaction  
B. Oxidation reaction  
C. Redox reaction  
D. None of these

Q.2 Answer the following short questions (Any five)

(10)

1. Define term Complementary color.
2. Define term "Dyes".
3. Give an outline Direct method of diazotization.
4. Indicate a coupling position & condition In J-acid
5. Write a structure of "Procion Brilliant Blue-MR".
6. Write a structure of "Procion Brilliant Red-M5B".
7. Define term "Iodometry titration".
8. Give an account of light fastness properties.



Q.3 Give detail classification of the dyes according to their chemical constitution.

(08)

OR

Q.3 Give the reasons for the following.

(08)

- A. Benzene, Naphthalene & Anthracene are colorless whereas Naphthacene, Pentacene & Graphite is yellow, blue & black in colour respectively.
- B. p-Amino azo benzene is yellow but in acidic solution it becomes violet.

Q.4 Write a note on the effect of substituents on diazotization and coupling reaction.

(08)

OR

Q.4 Write note on Lapworth's notation for azo dyes.

(08)

Q.5 Discuss briefly the various methods for preparation of Indigotin.

(08)

OR

Q.5 Enlist various classes of Reactive dyes giving suitable examples.

(08)

Q.6 Write note on preparation of standard nitrous acid and diazo solution.

(08)

OR

Q.6 Discuss the procedure for H-acid estimation.

(08)