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Model Question Paper: Final Semester Examination

B.Sc. Semester-6, Core Course – XIV (Organic Chemistry-V)

Section- III Dyes

MCQ (2- Marks)

1. Dyes has an affinity for the substrate:
a) Yes b) No c) cannot say d) None
2. The visible spectrum range to detected by dyes:
a) 380-720nm b) 300-360nm c) 280-300nm d) None.
3. The major wavelengths reflected out from the material is called:
a) Hue b) Pigment c) Dye d) None
4. The complementary colours at 605-750nm for red Colour is:
a) blue-green b) Blue red c) Blue-pink d) All
5. Colour in crystalline solids arises from:
a) Dyes b) Pigmentation c) band theory d) None

Short Answer type Questions (5- Marks)

Q-1. What do u understand by Structural Classification of dyes? Illustrate your answer with a suitable example.

Q-2. Disclose following information for Dyes:

- a. Diazotisation b. Azo Coupling c. Geometrical Isomerism in Azo Coupling

Q-3. Explain following:

- a. Bathochromic Shift b. Hypsochromic Shift c. Beer's Law

Q-4. How can you prepare Nitrous acid? Give the mechanism of formation of diazonium salt from nitrosonium ion to generate dyes.

Long answer type questions (12.5)

Q-1. Illustrate resonance phenomenon in Diazonium Ion. Discuss Coupling mechanism with phenol to prepare different kind azo dyes.

Q-2. Proposed the synthetic scheme to prepare Phenolphthalein and Fluorescein dyes.