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RN-6881

B. E. III (Sem. V) (T.P.) Examination

May / June – 2010

Technology of Dyeing - I

Time : 3 Hours] [Total Marks : 100

Instructions : (1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ B. E. 3 (Sem. 5) (T.P.)

Name of the Subject :

☛ Technology of Dyeing - 1

☛ Subject Code No. : 6 8 8 1 ☛ Section No. (1, 2,.....) : 1&2

Seat No. :

Student's Signature

(2) Answers to the **two** sections must be written in **separate** answer books.

(3) Figures to the **right** indicate full marks.

(4) Tie **two** sections **separately**.

SECTION I

Q.1 **a)** Answer the following **objective** questions. **(05)**

i) Leuco compounds are substantive towards cellulose. True or false.

ii) Cupraammonium fibre swells _____ than cotton in water.

iii) Naphthol AS-BS is a high substantive napthol. True or false.

iv) Remazol dyes are _____ reactive dyes.

v) In the general formula of reactive dyes, F stands for _____ part of the dye.

b) **Match** the following. **(05)**

1. IN class of Vat dyes	(A) Dyeing Temperature 20-30 °C
2. IW class of Vat dyes	(B) Co-valent bond
3. IK class of Vat dyes	(C) Dyeing Temperature 40-50 °C
4. Basic dye	(D) Dyeing Temperature 50-60 °C
5. Reactive dye	(E) Brilliant shades

c) Explain dye uptake as a function of technological process conditions **(10)**

Q.2 a) Classify the reactive dyes on their reactivity and substantivity. **(05)**

b) Explain continuous and semi continuous dye method of reactive dye. **(10)**

OR

Q.2 Why direct dyes require after treatment? Enlist different after treatments given to direct dyed fabric and explain any 3 in detail. **(15)**

Q.3 Write short notes on **any three** of the following **(15)**

a) Stripping of sulphur dye

b) Classification of vat dyes

c) Basic dye

d) Defects in sulphur dyeing and corrections

SECTION II

Q.4 a) Answer the following objective questions. **(10)**

i) Liquid sulphur dyes are soluble in water. True or false.

ii) Who was the first manufacturer of procion dyes?

iii) Bi-functional reactive dyes exhaust more than mono-functional dyes. True or False?

iv) What are the solublised vat dyes chemically?

v) What is meant by ring dyeing?

vi) Sulphur black is cheaper than aniline black. True or false.

vii) Give two examples of oxygen carriers.

viii) What is Denim?

ix) Give full form of BASF.

x) Why sodium dichromate is used in sulphur dyeing?

b) Describe the warp sheet dyeing method used for colouration of denims. **(10)**

Q.5 a) Discuss, elaborate the chemistry, properties and application of Indegosol dyes to cotton fabrics, with advantages and disadvantages. **(10)**

b) Explain aged aniline black on cotton. **(05)**

OR

Q.5 Explain what are mineral colours and give it's classification. Discuss the method of producing mineral khakhi on cotton, with its limitations and after treatments. **(15)**

Q.6 Write short notes on **any three** of the following. **(15)**

a) Faults and Rectifications in dyeing.

b) Steamed aniline black.

c) Sulphur – Indigo combination.

d) Precautions while dyeing in Indigo dyeing machine.
