

# TXL 242: TECHNOLOGY OF TEXTILE COLOURATION

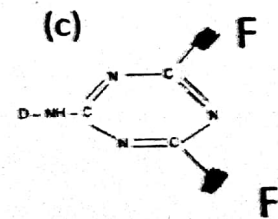
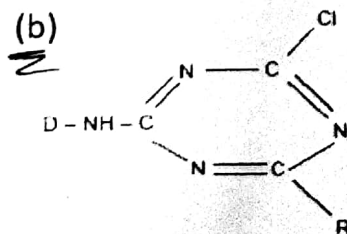
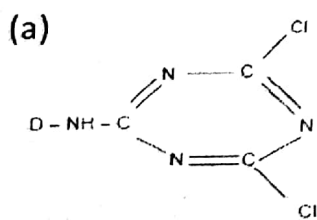
Minor-I

Max Marks-20

5.30-6.30 PM /25-08-2018/LH-108

Attempt all questions.

1.  $\text{CH}_2=\text{CH}_2$  does not show any color, explain. Mention 'two' roles of auxochrome present in the dye structure. [1 + 1]
2. Beer-Lambert law is true up to a certain concentration level of the dye - explain. Elucidate how 'after-treatment with  $\text{CuSO}_4$ ' improves light fastness of direct dyed cotton fabric. [2 + 2]
3. With the graphical representation, describe the effect of temperature in dye uptake of direct dyes. Elucidate one advantage and one limitation of reactive dyes having methylol ( $-\text{CH}_2\text{OH}$ ) as a reactive group for cotton substrate. [2 + 2]
4. In case of batch-wise dyeing, do you suggest both the exhaustion and fixation of a reactive dye should happen in a single bath, single step process (you may use graphical representation to elaborate your answer)? [2.5]
5. In a reactive dye solution, if you add cationic surfactant, do you expect any change of  $\lambda_{\text{max}}$ ? Give reasons for your answer. [2]
6. A dyer should look for a neutral dyeing reactive dye for PET/Cotton blend substrate- why? Among the followings, what is your preferred dye for printing and why? [2 + 2]



7. With a suitable justification state whether the following statement is 'True / False'  
A MCT reactive dye containing  $-\text{OCH}_3$  (methoxy) group instead of  $-\text{OCH}(\text{CH}_3)_2$  (isopropoxy) group is more preferable for print. [1.5]

-----The End of Question Paper-----