



11. (a) What are the different modified textile fibres obtained from cellulose? Explain the reactions and conditions. (4 + 6 + 6)

Or

- (b) What are the important regenerated cellulose fibres? Explain their production and uses. (4 + 8 + 4)

12. (a) Enumerate the similarities and differences in the chemical composition of wool and silk. (8 + 8)

Or

- (b) Name the impurities present in cotton and wool fibres. Explain the mechanism of their removal. (3 + 3 + 10)

13. (a) Give an account on the mechanism of bleaching action of hydrogen peroxide.

Or

- (b) Explain how sodium hypochlorite is advantageous over calcium hypochlorite?

14. (a) Write the dye absorption properties of dyes. Describe, how dye is estimated in spectrophotometer? (8 + 8)

Or

- (b) Show, how the following dyes are produced?

(i) Malachite green

(ii) Alizarin

(iii) Methyl orange; and

(iv) Congo red. (4 + 4 + 4 + 4)

15. (a) What are the various adsorption isotherms in dyeing? Explain the important one. (6 + 10)

Or

- (b) Derive William Landed Ferry (WLF) equation. Write its significance. (10 + 6)