17223

15116

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : **20**

a) Describe the cultivation method for cotton fibre.

b) Explain the term 'degree of polymerisation', with suitable example.

c) Explain the chemical properties of viscose rayon fibre.

d) What is HWMF ? State the chemical properties of polynosic fibres.

e) What is meant by degumming of silk ? Explain any one method for the same.

f) Describe the cultivation method for flax fibre.

g) State any two physical and two chemical properties of jute fibre.

Marks

2. Attempt any TWO of the following : **16**

a) (i) Describe the classification of textile fibres according to their nature and origin with examples.

(ii) State advantages of Natural fibres.

b) Explain formation of oxycellulose and hydrocellulose in cotton fibre and their methods of detection.

c) (i) Describe the manufacturing process for cellulose triacetate fibre.

(ii) Draw the flow sheet for the process.

3. Attempt any TWO of the following : **16**

a) Explain the essential and desirable properties of textile fibres.

b) (i) Explain physical and chemical properties of cotton fibre.

(ii) State applications of cotton fibre.

c) (i) With a labelled diagram, describe the morphological structure of wool fibre.

(ii) Describe chemical composition of wool.

4. Attempt any TWO of the following : **16**

a) With a labelled diagram, describe dry spinning method and wet spinning method for textile fibres.

b) (i) Describe the manufacturing process for viscose rayon fibre.

(ii) Draw the flow sheet for the process.

c) (i) State the physical and chemical properties of silk fibre.

(ii) Describe grading of wool fibre.

Marks

5. Attempt any TWO of the following : **16**

a) (i) Describe the concept of crystalline and mesomorphous regions in textile fibres.

(ii) Explain their importance.

b) (i) Describe the manufacturing process for lyocell fibre.

(ii) State two chemical properties of lyocell fibres.

c) (i) Describe the physical and chemical properties of wool fibre.

(ii) State applications of wool fibre.

6. Attempt any TWO of the following : **16**

a) (i) Write a labelled diagram, describe the morphological structure of cotton fibre.

(ii) Name various varieties of cotton fibre. Explain any one.

b) Distinguish between :

(i) homogeneous and heterogeneous acetylation,

(ii) cellulose acetate and cellulose triacetate.

c) (i) Define bass fibres. Explain their classifications.

(ii) State uses of banana fibres and coil fibres.

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