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3 Hours / 70 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) Assume suitable data, if necessary.

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

Marks

1. Attempt any FIVE of the following : **10**

a) Define the following terms –

i) Polymet

ii) Degree of Polymerization

b) Draw a neat labelled diagram of morphological structure of cotton fibre.

c) State the applications of Jute fibre in indian culture.

d) Draw cross-section of –

i) Wool

ii) Silk

e) State the advantages and disadvantages of synthetic fibres.

f) Draw diagram of L.S. and C.S. of polyester fiber.

g) Classify the regenerated fibres based on their source.

P.T.O.

Marks

2. Attempt any THREE of the following : **12**

a) Classify the textile fibres based on their origin.

b) State and explain physical and chemical properties of cotton fibre.

c) Describe with neat sketch of melt spinning process.

d) Enlist and elaborate important properties of Tencel fibre.

3. Attempt any THREE of the following : **12**

a) With a neat labelled diagram explain morphological structure of wool fibre.

b) Describe manufacturing method of HOY in details.

c) Describe stepwise manufacturing process of Tencel fibre.

d) Explain the manufacturing process of polyester by DMT route.

4. Attempt any THREE of the following : **12**

a) Outline the process of manufacturing Jute fibre.

b) Explain the "Sericulture" of silk.

c) Enlist the advantages and disadvantages of dry spinning method.

d) Enlist and elaborate the physical and chemical properties of viscose rayon.

e) Describe the manufacturing process of polypropylene fibres.

Marks

5. Attempt any TWO of the following : **12**

a) Illustrate the chemical reactions occures during condensation and addition polymerization with one example of each.

b) Illustrate the life cycle of silk with the help of neat diagram.

c) Demonstrate the stepwise manufacturing process of viscose rayon with the help of flow chart.

6. Attempt any TWO of the following : **12**

a) Elaborate the manufacturing process of Nylon6 with the chemical reactions involved.

b) Enlist and elaborate applications of –

i) Polyethylene fibre

ii) Polypropylene fibre

c) State the concept of following terms –

i) LOY

ii) POY

iii) FDY
