22580

24225

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 answer with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Use of Non-programmable Electronic Pocket Calculator is permissible.

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

(8) Use of Steam tables, logarithmic, Mollier's chart is permitted.

Marks

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

a) List down various impurities present in wool.

b) Draw flow chart for production of woolen yarn.

c) State any four applications of Jute yarn.

d) Elaborate the concept of spun silk.

e) State objective of degumming of silk. Briefly explain the method.

f) Define "Index of blend irregularity".

g) Give flow chart for manufacturing polyester/cotton blended yarn.

h) State properties of polyester/wool blended yarn.

P.T.O.

Marks

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

a) Explain the production of woolen yarn. State objectives of each process.

b) Draw flow chart for manufacturing of jute yarn. State objectives of each process.

c) Give detailed classification of silk.

d) Describe in detail objectives of blending.

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

a) Explain the manufacturing process of worsted yarn. State objectives of each process.

b) Draw flow chart for manufacturing linen yarn and state objectives of each process.

c) With the help of a neat diagram explain the process of reeling (filiature operation).

d) Describe selection of blend constituents with respect to –

i) Type of fiber

ii) Compatibility of blend constituents

iii) Fiber specifications

iv) Blend ratio.

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

a) State objective of gilling process and explain working of gilling machine with the help of a neat diagram.

b) Draw diagram of woolen card and label its parts.

c) Describe in detail properties of jute yarn.

d) Describe specifications of blend constituents process parameter and machine parameters for manufacturing of polyester/wool blended yarn.

e) Explain effect of relative humidity and temperature on blend spinning polyester/cotton blends at different departments of spinning.

Marks

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

a) With the help of a diagram explain the life cycle of silk worm.

b) Explain different methods of blending. Compare their relative merits and demerits.

c) Describe in detail changes to be made at blow room, carding and ring frame for processing polyester staple fibres.

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

a) Compare woolen yarn with worsted yarn with respect to the following points –

i) Fiber specifications.

ii) Amount of twists

iii) Manufacturing sequence

iv) No. of processes involved

v) Cost of yarn

vi) End use

vii) Wet processing of fabric produced.

b) Describe causes and remedies of following blended yarn faults.

i) Slubs

ii) Crackers and cockled yarn

iii) Fluffy yarn

c) Describe specification of blend constituents, process parameters, machine parameters for manufacturing of wool/acrylic blended yarn.

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