17334

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) 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.

Marks

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

a) Write the significance of twist.

b) What is linear density of yarn?

c) How yarn count can be measured by direct system?

d) With neat diagram, explain 'S' Twist yarn.

e) What is yarn evenness?

f) Define fabric cover factor.

g) How fabric drape can be changed?

h) What is mean by fabric drape?

i) Define the term 'Abrasion' and 'Wear'.

P.T.O.

Marks

j) Define - waterproof fabric, give example of such type of fabric.

k) What is Tenacity?

l) Define - Air permeability and give example of fabric which required air permeability property.

m) Explain the term work of rupture.

n) Write the importance of fabric tensile strength.

o) Explain the term 'CSP'.

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

a) Write the effect of twist on strength of staple yarn.

b) Explain the principle of twist contraction method for determination of yarn twist.

c) Explain laboratory method to find yarn evenness by using cutting and weighing method.

d) If a polyester yarn of 100 meter length is having 3 gram weight, then find its Denier and Tex.

e) How does twist affects the fabric properties.

f) Give the cause and remedies for yarn irregularities.

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

a) What is random and periodic variation in yarn.

b) With neat diagram, explain fabric thickness tester.

c) What is fabric GSM? How it is measured?

d) Explain laboratory method to measure fabric width.

e) With equations explain the following term:

(i) Flexural Rigidity

(ii) Bending Modulus.

f) Explain - plane, flex and edge abrasion.

Marks

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

a) What is meant by fabric serveability? Write the importance of this test.

b) How is warp and weft count measured? Explain

c) What is EPI and PPI? Write the procedure for its measurement.

d) What is Drape co-efficient? Explain and give formula

e) Explain cantilever principle used for stiffness test.

f) Explain about the fabric sampling method.

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

a) Explain the pilling Test of fabric with respective to the following,

(i) Sample preparation method for this test.

(ii) How pilling analysis is done.

(iii) Draw a neat labellel diagram of ICI pilling tester.

b) With a suitable diagram, explain the procedure to measure fabric water repellency by spray test. Also write the spray rating.

c) A cotton yarn is to be tested for CSP. Explain test procedure with following points.

(i) Lea preparation

(ii) Lea strength testing procedure.

(iii) CSP measurement.

Marks

6. Attempt any FOUR of the following: 16

a) Draw diagram of bursting strength tester? Give two example of fabric which need this test.

b) Explain the procedure to test fabrics tensile strength.

c) Explain sample preparation method for fabric tensile strength test.

d) Explain the principle of tear strength tester.

e) Explain various factor which affects the fabric air permeability

f) Give the procedure and sampling method for measurement of strength of yarn.
