313347

12425

03 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.

Marks

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

a) State the objectives of beam warping machine.

b) Suggest the type of warping machine to produce warp colour pattern.

c) State the objectives of sizing process and way to achieve them.

d) Draw the outline of two cylinder sizing machine.

e) Name the components used in sizing box (conventional size box).

f) List the three important size paste ingredients.

g) Define stretch and size pick up percentage.

Marks

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

a) State the function of:

i) Stop motion

ii) Expanding comb

iii) Pressure drum

iv) Tensioner.

b) Explain the leasing process in sectional warping in detail.

c) Explain the following properties of size paste:

i) Keeping

ii) Congealing

iii) Viscosity

iv) Concentration.

d) Describe with neat sketch the passage of yarn through multi-cylinder sizing machine.

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

a) Explain the passage of yarn through direct warping machine with labelled diagram.

b) State the function of:

i) Separating rods

ii) Leasing rod

iii) Sectional reed

iv) Sectional drum.

c) Explain the working of temperature control device used in size-box with neat sketch.

d) Calculate sizing machine production in meters/shift of 8 hrs. and number of ends on weaver's beam from following data.

Winding speed = 80 meters/min.

Machine efficiency = 50%, No. of warpers beam = 6,

No. of ends on each warpers beam = 600.

Marks

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

a) List the defects in warper beam produced on direct warping and suggest the causes and remedies of any one of them.

b) Explain with neat sketch the passage of yarn through section warping machine.

c) Describe the factor affecting the rate of drying cylinders on sizing machine.

d) i) State the significance of stretch

ii) Explain any one method to measure the stretch.

e) Explain the factor affecting size-pick up percentage.

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

a) Calculate the production in kg/shift of 8 hrs from following data of direct warping m/c.

Winding speed = 800 meters/min.,

Total numbers of end on warpers beam = 1000,

Efficiency of machine = 50%, Yarn count = 30 Tex.

b) Describe with neat sketch the preparation of size paste in pressure cooker for 40^s Ne.

c) Draw leasing and splitting arrangement for 6 warpers beam in sizing machine.

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

a) i) List the types of creels used on direct warping machine.

ii) Suggest merits and demerits of any two of them.

b) Calculate number of sections, number of ends in a section, section width, number of coloured pattern repeat in a section, total numbers of ends on weavers beam from given data:

EPI = 60, Beam width = 40 Inch, Creel capacity = 300,

Colour patter = white (10), blue(10), brown(10).

c) i) Draw over and under creel, inclined creel equitension creel.

ii) Suggest the merits and demerits of over and under creel used on sizing machine.