21415

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) 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) State the advantages of rural site selection for textile mill.
- b) Mention the symptoms of bad layout.
- c) Give the principles of material handling.
- d) Write the duties of ring frame tenter and weaver.
- e) How to arrive at energy consumed/kg of 40^s yarn in Ring frame?
- f) Enumerate effect of changing temperature and humidity in carding and drawing process.
- g) What is the level of noise in various departments of spinning and weaving? Give its effects on workers health.
- h) (i) What is energy audit? State its usefulness.
 - (ii) State the Relative humidity required in various weaving preparatory departments and loom shed producing 100% cotton fabric.

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2.		Attempt any <u>TWO</u> of the following:	16
	a)	Give the steps involved in planning a layout for spinning mill.	
	b)	Sketch any four material handling equipments used in textile mill.	
	c)	Mention eight factors which are important while selecting the machinery in weaving.	
3.		Attempt any TWO of the following:	16
	a)	Write quality particular (epi, ppi, wasp and weft count width, crimp%) of any eight commonly used fabrics.	
	b)	Calculate machinery required upto warping only for producing 20,000 meters of Denim fabric per day. Prepare table also.	
	c)	Prepare layout for above Q.3 (b) calculated machines.	
4.		Attempt any TWO of the following:	16
	a)	Draw organization chart for producing 40 ^s combed yarn on 25,000 ring spindles. Calculate machinery upto comber only.	
	b)	Calculate machinery required for producing 20 ^s carded yarn on 25,000 spindles. Write processing parameters in table.	
	c)	Sketch layout of the required machinery for production from Q.4. (b) OR Q.4 (a).	
5.		Attempt any TWO of the following:	16
	a)	Find machine upto draw frames for producing P/C blended 50 ^s count yarn on 25,000 ring spindle.	
	b)	Give labour complements at ring frame for 25,000 spindles.	
	c)	Mention labour requirements of loom shed having 200 automatic looms.	

Marks

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Marks

6. Attempt any <u>TWO</u> of the following:

16

- a) Which steps are required to save energy in weaving department?
- b) Draw the line diagram of humidification plant used in spinning mill.
- c) Enumerate measures and laws to control the accidents in textile mill.