11819
3 Hours / 70 Marks
Seat No. $\square$

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

## Marks

1. Attempt any FIVE of the following :
(a) Define Textile fibre.
(b) Enlist any four cotton varieties which you know.
(c) State the object of combing.
(d) State the object of carding.
(e) Define "Opening".
(f) Give sequence of machines for modern blow-room.
(g) State the advantages of optical sensors.
2. Attempt any THREE of the following :
(a) State the importance of conditioning of cotton raw material.
(b) Describe cotton cultivation and list the names of areas of cotton cultivation.
(c) Draw and label conventional bale opener.
(d) List the types of opening devices and define degree of opening.
3. Attempt any THREE of the following :
(a) Give classification of Textile fibre.
(b) Draw and label saw gin.
(c) List the types of transport of material in blow-room, state the merits and demerits of each.
(d) State the factors affecting on cleaning and opening of cotton.
4. Attempt any THREE of the following : $4 \times 3=12$
(a) Give flow process chart for combed yarn.
(b) Differentiate any eight points between carded yarn and combed yarn.
(c) With neat sketch describe any one automixer.
(d) State the importance of intensive cleaner, also draw and label any one intensive cleaner.
(e) State the object of dedusting machine, also draw and label any one dedusting machine.
5. Attempt any TWO of the following : $6 \times 2=12$
(a) With neat sketch describe blendomat opener.
(b) State the advantages and disadvantages of manual mixing.
(c) With neat sketch describe axiflow cleaner.
6. Attempt any TWO of the following :

$$
6 \times 2=12
$$

(a) Define cleaning. List the different types of cleaning devices, describe with neat sketch any one cleaning device.
(b) Differentiate (any six) points between conveyor belt and pneumatic transport of material.
(c) Calculate the production of a scutcher in pounds/shift of 7.5 hours from the following particulars :
(i) Lap roller dia. $=12^{\prime \prime}$ inch
(ii) Lap roller speed $=13 \mathrm{rpm}$
(iii) Efficiency $=85 \%$
(iv) Lap weight $=6941$ grains $/ \mathrm{yd}$.

