17462

14115

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory*.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

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

Marks

1. Attempt any <u>TEN</u> of the following: **20**

a) State objectives of combing.

b) What is the need of combing preparatory?

c) What is the function of tap comb in combing?

d) What are objectives of speed frame?

e) What do you mean by spindle leading?

f) What is the function of traveller?

g) Explain function of separators.

h) Enlist various combing preparatory machine combinations.

i) Give the importance of stop motion in speed frame.

j) State function of presser arm on speed frame.

k) What is the function of aprons?

l) Explain average count with example.

m) What is noil?

Marks

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

a) Draw neat labelled diagram of sliver lap machine.

b) Explain causes and remedies of defective production at comber.

c) Explain shifting of cone belt on speed frame.

d) Draw neat labelled sketch showing passage of material through ring frame.

e) Explain monitoring system on ring frame.

f) Draw diagram of flyer and label the parts. State function of the same.

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

a) Compare flyer leading and bobbin leading principles of winding.

b) State specifications of modern comber.

c) A hank meter on comber registers 22.7 hanks at the end of the shift. The machine delivers 0.16 hanks of sliver. If the coiler C.R. has 2" diameter and runs at 240 rpm. Find the production per shift of 8 hrs and working efficiency.

d) Explain twist insertion in speed frame.

e) State salient features of modern ring frame.

f) Explain construction of cylinder comb on the comber.

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

a) Explain drafting system of ring frame.

b) Explain parameters influencing the combing operation.

c) Explain passage of material through ribbon lap machine with neat sketch.

d) Explain various stop motions on speed frame.

e) Explain different types ring and travellers assemblies with help of neat diagrams.

f) Explain objectives of ring frame in detail.

Marks

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

a) Enlist important settings on the comber. Explain step gauge setting and its importance.

b) Explain gear change position on to the ring frame.

c) Explain cone drive transmission on speed frame.

d) Explain different types of traveller and its profile of wire.

e) Explain building of base of bobbin in ring frame.

f) Explain importance of balloon control ring on ring frame.

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

a) Explain influence of lap preparation on combing.

b) Explain operating sequence in speed frame.

c) Explain how twist is inserted on ring frame.

d) Explain reversal of bobbin rail on speed frame.

e) A speed frame produces a package of 450 gms. The 1" diameter back roller runs at 30 rpm. The draft employed at speed frame is 6.0. If the machine runs at 85% efficiency, find the time required for 1 full doff when machine delivers 3.0 hank roving.

f) A 6.25 hank roving bobbin weighing 14 OZS is fed to a ring frame which has 1" front roller running at 126 rpm. The draft employed is 12.0. Find how long a roving bobbin will last.