

Scheme – I

Sample Question Paper

Programme Name : Diploma in Textile Manufacture

Programme Code : TX

Semester : Third

Course Title : Carding and Combing

Max. Marks : 70

22365

Time: 3 Hrs.

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) Preferably, write the answers in sequential order.

Q.1 Attempt any FIVE of the following.

10 Marks

- a) Define the term carding action.
- b) State the objects of carding.
- c) State the importance of burnishing.
- d) State the importance of cots buffing.
- e) Define the term autolevelling.
- f) State the necessity of comber preparation.
- g) State the tasks of combing.

Q.2 Attempt any Three of the following.

12 Marks

- a) Sketch and label passage of material through carding machine.
- b) Describe with neat sketch the working of Horse fall grinder.
- c) Describe with neat sketch passage of material through draw frame machine.
- d) Suggest draw frame sliver defects with causes.

Q.3) Attempt any Three of the following.

12 Marks

- a) Give the advantages of chute feed system related to quality of material.
- b) Suggest the following settings for processing cotton fibre through carding machine with effect of each on sliver quality.
 - i. Cylinder to flat,

- ii. Doffer to cylinder
- c) Select draft distribution in various zones of drafting system in draw frame to improve quality of sliver in terms of uniformity.
- d) Draw neat labeled sketch for the passage of material through comber.

Q.4) Attempt any Three of the following.

12 Marks

- a) Differentiate any four points between lap feed and chute feed system in carding based on ease of handling material, quality of delivered sliver, productivity and maintenance of machines.
- b) Calculate the production of draw frame in kgs/shift of 8 hours from the following particulars:- i) Front roller speed-300 mts /min ii) Hank of sliver-0.12 iii) Efficiency-90%.
- c) List the modern features of draw frame.
- d) List the modern features of comber machine.
- e) Define forward feed and backward feed .

Q.5) Attempt any Two of the following.

12 Marks

- a) Calculate the production of carding machine in pounds/shift of 7.5 hours from the following particulars:- i) Doffer speed-39 rpm ii) Weight of sliver-4.5 gms/mt iii) Efficiency-89% iv) Doffer dia.-27 inch
- b) Calculate the production of a draw frame in kgs/shift of 8hrs from the following particulars:- i) Total draft-6 ii) Back roller speed-4 iii) Back roller dia -1 inch iv) Weight of delivered sliver- 3.5 gms/mt v) Efficiency-85%.
- c) Suggest index cycle timing for combing, detaching and nipping processes with justification

Q.6) Attempt any Two of the following.

12 Marks

- a) Suggest the effect of i) step gauge ii) brass groove gauge timing and setting of comber parts on comber sliver quality
- b) Suggest the causes and remedies of more noil variation in comber.
- c) Calculate the production of a comber in pounds/shift of 8hrs from the following particulars:- i) Feed/nip-9mm ii) nips/min-230 iii) feed roller dia -1 inch iv) Weight of lap fed 650 grains /yd v) Efficiency-85% vi) noil%-16% vii) no of heads-6 viii) feed ratchet wheel -10T ix) Through of pawl -1teeth.

Scheme – I

Sample Test Paper - I

Programme Name : Diploma in Textile Manufacture

Programme Code : TX

Semester : Third

Course Title : Carding and Combing

Max. Marks : 20

22365

Time: 1 Hour

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) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR.

08 Marks

- a) State any two uses of sliver coiling.
- b) Draw over and under coiling.
- c) State the action taken in carding and stripping.
- d) Convert the following to gms/yd i) 3.5 gms/mt ii) 55 grains /mt.
- e) Define the term drafting.
- f) Define the term auto levelling.

Q.2 Attempt any THREE.

12 Marks

- a) Draw and label passage of material through carding machine.
- b) Calculate the production of carding machine in pounds/shift of 7.5 hours from the following particulars:- i) Doffer speed-30 rpm ii) Wright of sliver-4.6 gms/mt iii) Efficiency-88% iv) Doffer dia.-27 inch .
- c) Calculate the production of a draw frame in kgs/shift of 8hrs from the following particulars:- i) Total draft-6 ii) Back roller speed-4 iii) Back roller dia -1 inch iv) Weight of delivered sliver- 3.5 gms/mt v) Efficiency-85%.
- d) State the necessity of roller cots buffing.

Scheme – I

Sample Test Paper - II

Programme Name : Diploma in Textile Manufacture

Programme Code : TX

Semester : Third

Course Title : Carding and Combing

Max. Marks : 20

22365

Time: 1 Hour

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) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR.

08 Marks

- a) Explain the importance of pre-comber draft.
- b) State the all functions of combing process.
- c) Compare Unicom and Half lap on the basis of wire type and point density.
- d) Calculate grams per meter of 750 Grains per yard sliver lap.
- e) Explain working principle of close end autoleveller.
- f) State the effect of pre-combing draft on noil percentage.

Q.2 Attempt any THREE.

12 Marks

- a) Calculate the production of a comber in pounds/shift of 8hrs from the following data,
 - Feed/nip-6 mm
 - Nips/min-350
 - Feed roller dia -1 inch
 - Weight of lap fed 750 grains /yd
 - Efficiency-85%
 - Noil%-17%
 - No of heads-6
 - Feed ratchet wheel -10T
 - Through of pawl -1teeth.
- b) Calculate pre-comber draft and pre-comber doubling with following data,
 - Doubling at sliver lap – 18
 - Doubling at Ribbon lap – 6
 - Draft at Sliver Lap – 1.5
 - Draft at Ribbon lap – 6.

