

Code: 150-5303

TEXTILE

THIAGARAJAR POLYTECHNIC COLLEGE, SALEM
(Autonomous)

Reg. No.

October 2018 Examinations
DIPLOMA IN TEXTILE TECHNOLOGY
FABRIC MANUFACTURE - II

Year/Sem: III / V (ODD-III)

Max. Marks : 75

Time : 3 hr.

PART-A

(5 x 2 = 10 Marks)

Note: (i) Answer any FIVE questions out of which question No.8 is compulsory.

(ii) All questions carry equal marks.

- 1 What are the objectives of Dobby shedding device?
- 2 What are the advantages of Double lift Double cylinder Jacquard?
- 3 What are the objectives of Drop box mechanisms?
- 4 How do you calculate Fabric Cover Factor?
- 5 What is the Function of Weft Feelers?
- 6 What are the objectives of warp stop motion?
- 7 Define course, wale, stitch density, stitch length.
- 8 What is swinging & shogging movements of warp knitting?

PART-B

(5 x 3 = 15 Marks)

Note: (i) Answer any FIVE questions out of which question No. 16 is compulsory.

(ii) All questions carry equal marks.

- 9 Compare Tappet and Dobby shedding.
- 10 What are the common defects in doobby weaving?
- 11 Classify the Jacquard shedding device.
- 12 What are the types of Tie-ups in harness Mounting in Jacquard?
- 13 What are the functions of card saving devices?
- 14 What are the advantages of Automatic looms over Non-Automatic looms?
- 15 What are the types of Needles used in weft knitting?
- 16 Compare weft and warp knitting.

PART-C

(5 x 10 = 50 Marks)

Note: (i) Answer all the questions choosing either sub-division (A) or sub-division (B) of each question.

(ii) All divisions carry equal marks.

- 17 A Explain with sketch the construction and working of climax doobby. 10
(OR)
B Explain with sketch the construction and working of positive cam doobby. 10
- 18 A Explain with sketch the working of Double lift Double cylinder Jacquard 10
(OR)
B Explain with sketch the working of Piano card cutting machine. 10
- 19 A Explain with sketch the construction and working of 4x1 cowburn and peck's Drop box mechanisms. 10
(OR)
B Explain with sketch the loop forming principle of Terry mechanisms 10
- 20 A Explain with sketch the construction and working of Northrop cop changing mechanisms. 10
(OR)
B Explain with sketch the working of castellated bar Mechanical warp stop motion. 10
- 21 A Explain the passage of material through single jersey circular weft knitting machines 10
(OR)
B Explain with sketch the bearded needle knitting cycle in Tricot warp knitting machine 10

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DIPLOMA IN TEXTILE TECHNOLOGY

TEXTILE WET PROCESSING - II

Year/Sem: III / V (ODD-III)

Max. Marks : 75

Time : 3 hr.

PART-A**(5 x 2 = 10 Marks)****Note: (i) Answer any FIVE questions out of which question No.8 is compulsory.****(ii) All questions carry equal marks.**

- 1 What is Tie & Dye printing?
- 2 What is transfer printing?
- 3 What is flock print?
- 4 What is compacting?
- 5 What is flame retardant finish?
- 6 Define Bio polishing of garments with enzymes.
- 7 Define ISO 14000 standards.
- 8 Name any two finishes carried out in stenter machine?

PART-B**(5 x 3 = 15 Marks)****Note: (i) Answer any FIVE questions out of which question No. 16 is compulsory.****(ii) All questions carry equal marks.**

- 9 What are the functions of binder and fixer?
- 10 Write the principle of batik printing.
- 11 Name any three defects in Garment Printing?
- 12 Why damping is necessary prior to calendaring?
- 13 What is weight reduction of polyester?
- 14 List out the types of pollution.
- 15 Write the principle of reverse osmosis.
- 16 Write down screen preparation sequence for rotary screen printing.

PART-C**(5 x 10 = 50 Marks)****Note: (i) Answer all the questions choosing either sub-division (A) or sub-division (B) of each question.****(ii) All divisions carry equal marks.**

- 17 A Explain the different types of ingredients used in printing paste with its function. 10
(OR)
B Explain the white discharge printing with vat dyes on vinyl sulphone reactive ground. 10
- 18 A Explain the working of Rotary printing machine with neat sketch. 10
(OR)
B Explain the digital ink-jet printing machine. 10
- 19 A With neat sketch, explain the passage of material in sanforizing machine. 10
(OR)
B Explain the working of Hot Air Stenter machine with neat sketch. 10
- 20 A Explain the steps involved in Resin finishing with suitable recipe. 10
(OR)
B Explain the different types of softeners used in finishing. 10
- 21 A Explain the effluent treatment process with suitable flow chart. 10
(OR)
B Write the list of banned chemicals and dyes and give a short note on Eco labels. 10

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DIPLOMA IN TEXTILE TECHNOLOGY

Garment Manufacture

Year/Sem: III / V (ODD-III)

Max. Marks : 75

Time : 3 hr.

PART-A**(5 x 2 = 10 Marks)****Note: (i) Answer any FIVE questions out of which question No.8 is compulsory.****(ii) All questions carry equal marks.**

- 1 List out the types of fabrics used in garment manufacture.
- 2 State the purpose of Grading.
- 3 What are the pattern making tools used for the pattern making process?
- 4 State any two features of automatic spread.
- 5 List out the simple automatic sewing machines.
- 6 What are the categories of pressing?
- 7 List the factors affecting the fusing process.
- 8 The yarn count is 3/180s, find out the ticket number.

PART-B**(5 x 3 = 15 Marks)****Note: (i) Answer any FIVE questions out of which question No. 16 is compulsory.****(ii) All questions carry equal marks.**

- 9 State the term 'AEPC' and write the functions of AEPC.
- 10 List any three pattern making principles for pattern drafting.
- 11 Explain the types of patterns used in garment making process.
- 12 Why marker planning is very important? How to calculate the Marker Planning Efficiency?
- 13 List the purpose of the Notchers and Drills.
- 14 Write down any two differences between the chain stitch and lock stitch.
- 15 State the purpose of the pressing process in garment making.
- 16 What type of sewing needle points are used for Knitted fabrics? Why?

PART-C**(5 x 10 = 50 Marks)****Note: (i) Answer all the questions choosing either sub-division (A) or sub-division (B) of each question.****(ii) All divisions carry equal marks.**

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|----|---|--|----|
| 17 | A | Explain the different stages in the development of collection of new styles of garments with a flow chart. | 10 |
| | | (OR) | |
| | B | Describe the steps in garment production process with a flow diagram. | 10 |
| 18 | A | Describe the methods of taking body measurements for the men's garments with a simple sketch. | 10 |
| | | (OR) | |
| | B | Explain with a neat sketch the pattern drafting procedure for the basic T shirt. | 10 |
| 19 | A | Explain with the simple sketch the types of lay used in the Garment industry. | 10 |
| | | (OR) | |
| | B | Describe with a simple sketch of Straight knife, Round knife and Band knife. | 10 |
| 20 | A | Explain the basic sewing lock stitch machine with a neat diagram and write the features. | 10 |
| | | (OR) | |
| | B | Describe the types of seams used in the garments with neat sketches. | 10 |
| 21 | A | Explain with a simple sketch any two fusing equipments used for the fusing process. | 10 |
| | | (OR) | |
| | B | a) Explain with a simple sketch the types of the packing systems used in the garments. | 8 |
| | | b) List the types of packing materials used in the garments packing. | 2 |

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DIPLOMA IN TEXTILE TECHNOLOGY

Textile Testing

Year/Sem: III / V (ODD-III)

Max. Marks : 75

Time : 3 hr.

PART-A**(5 x 2 = 10 Marks)****Note: (i) Answer any FIVE questions out of which question No.8 is compulsory.****(ii) All questions carry equal marks.**

- 1 Define Random Sampling.
- 2 What is Standard Testing Atmosphere?
- 3 Brief about Hand Stapling Method.
- 4 Define Fibre Quality Index.
- 5 Mention the importance of Yarn Strength Testing.
- 6 What is a Crimp and mention its importance.
- 7 Define Air Permeability.
- 8 Define Coefficient of Variation.

PART-B**(5 x 3 = 15 Marks)****Note: (i) Answer any FIVE questions out of which question No. 16 is compulsory.****(ii) All questions carry equal marks.**

- 9 Mention the 3 methods used in sampling of fibres.
- 10 Define Moisture Content, Moisture Regain and Standard Regain of fibres.
- 11 Write short notes on Caustic Soda Swelling method.
- 12 Define Tex and Denier.
- 13 State the importance of Twist.
- 14 Mention the names of any 3 Fabric Strength Testers.
- 15 Mention the factors affecting the abrasion Testing.
- 16 Give the objectives of Statistical Quality Control.

PART-C**(5 x 10 = 50 Marks)****Note: (i) Answer all the questions choosing either sub-division (A) or sub-division (B) of each question.****(ii) All divisions carry equal marks.**

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|----|---|---|----|
| 17 | A | Discuss in detail about the method of determination of Humidity using Dry & Wet bulb Hygrometer. | 10 |
| | | (OR) | |
| | B | Discuss in detail about the determination of Moisture content & Moisture Regain using Conditioning Oven. | 10 |
| 18 | A | With a neat sketch, explain in detail about the working of Sheffield Microniari. | 10 |
| | | (OR) | |
| | B | With a neat sketch, discuss in detail about the working of Shirley Trash Analyser. | 10 |
| 19 | A | Explain the working of a Single Yarn Twist Tester. | 10 |
| | | (OR) | |
| | B | With a neat sketch, explain in detail about the working of Uster Evenness Tester. | 10 |
| 20 | A | With a neat sketch, explain the working of Crease Recovery Tester. | 10 |
| | | (OR) | |
| | B | With a neat sketch, explain the working of Martindale Abrasion Tester. | 10 |
| 21 | A | Discuss in detail about the quality control charts, their importance and advantages. | 10 |
| | | (OR) | |
| | B | Twelve mule cops are tested for count and the mean found to be 94.2s. The standard deviation of the twelve results is 2.2 counts. If the nominal count is 92s, is the mule spinning too fine? ($t=2.203$ at 5% level and 3.106 at 1% level). | 10 |