

B.TECH. DEGREE EXAMINATIONS: APRIL /MAY 2010

Sixth Semester

TEXTILE TECHNOLOGY (FASHION TECHNOLOGY)

U07FT603: Quality Assurance in Apparel Production

Time: Three Hours

Maximum Marks: 100

Answer ALL the Questions:-

PART A (10 x 1 = 10 Marks)

1. Identify the correct inspection loop system followed in apparel industry
A) Inspection – Detection – Feedback – Causes - Correction
B) Inspection – Detection – Causes - Feedback – Correction
C) Inspection – Detection – Causes - Correction - Feedback
D) Inspection – Detection – Correction - Causes - Feedback
2. Identify the property which is not considered while selecting sewing threads for garment construction
A) Imperfections B) Yardage C) Package density D) Drapes
3. Which standard system among the following insists on the social welfare of employees?
A) ISO 9001 B) ISO 9000 C) SA 8000 D) ISO 14000
4. The defect which cannot be rectified is known as _____
A) Major defect B) Minor defect C) Critical defect D) Negligible defect
5. The tolerance level specification given for woven fabric weight is _____
A) +/- 3% B) +/- 5% C) +/- 8% D) +/- 10%
6. Identify the standard organisation which formulates test methods for testing harmful substances is _____
A) ANSI B) ASTM C) GOTS D) Oeko-tex
7. Identify the control form which is used to control the number of cut to be made in a lay.
A) Cutting order B) Cutting Ticket C) Bundle order D) Bundle ticket
8. The no. of points allotted for a defect of length between 3 and 6 inches in 4 point fabric inspection system is _____
A) 1 B) 2 C) 3 D) 4
9. 'Scoop pull off' is the test used to assess the performance of _____
A) Labels B) Buttons C) Zippers D) Sewing thread
10. Under which quality cost category the cost of returned merchandise is classified?
A) Prevention cost B) Appraisal cost
C) External failure cost D) Internal failure cost

PART B (10 x 2 = 20 Marks)

11. Outline the importance of quality control in apparel industry.
12. Differentiate between arbitrary and statistical samplings.
13. What is the significance of control chart in apparel quality control?
14. Highlight the role of quality circles in apparel industry.
15. Enlist the various sources of standards.
16. Differentiate between standards and specifications.
17. Differentiate between major and critical defects.
18. How do notches in pattern making help in apparel quality control?
19. List out the tolerance limits in inches for collar, chest, back length and cuff length of men's shirt.
20. Enlist the break ups in quality cost.

PART C (5 x 14 = 70 Marks)

21. a) (i) In the final inspection, an inspector checks 200 garments and found 15 defects. After the inspection another supervisor checks 80 garments and found 5 defects. Check statistically whether the inspection results are comparable. (6)
- (ii) Discuss the various types of sample inspection systems followed in apparel industry. (8)

(OR)

- b) (i) Briefly explain how quality control is different from quality assurance. (5)
- (ii) Explain how final inspection is carried out in apparel manufacturing process. (9)
22. a) From a carton box , a random sample of 5 garments are taken every hour and checked for its GSM. After ten hours the data are collected as shown in the following table.

Sample	Measurements (GSM)				
1	150	151	153	155	152
2	151	153	154	156	158
3	155	158	151	152	152
4	150	151.5	152.5	153	153
5	151	151	152	153	151
6	150	154	156	151	150
7	150	151.5	153.5	154.5	155
8	151	153	154.5	155.5	153
9	155	152	154	153	151
10	150	150	154	153	152

Use these data to design a control chart for the sample mean and range of the GSM of the concerned. The sampling exercise was then continued for the next 10 hours, the data collected are shown in the following table.

Sample	1	2	3	4	5	6	7	8	9	10
Mean	155	153	152.5	150.5	151.5	153.5	154	155	150	153
Range	4.5	3.5	4	3.5	2.5	1.5	2.5	3.5	2.5	1.5

Comment on the variation of the 10 hours. (A = 0.59, D = 2.34)

(OR)

b) How defects are classified in apparel manufacturing? Explain them in detail with suitable examples.

23. a) (i) Explain knit fabric performance specifications for a premium men's wear. (7)

(ii) Explain woven fabric performance specifications for a kids wear. (7)

(OR)

b) Brief the various levels of standards. Explain in detail the various sources of standards which are applicable to apparel industry.

24. a) (i) A fabric roll of 140 Yards length and 46" wide contains following defects.

- Defects up to 2" ----- 4 nos
- Defects over 3" less than 6" ----- 5 nos
- Defects over 6" less than 9" ----- 2 nos
- Defects over 9" ----- 1 no

Check whether the fabric can be accepted under 4 point grading system. (7)

(ii) Explain the various control forms used in cutting department to assure the quality of garments. (7)

(OR)

b) Discuss the various quality control measures to be taken in spreading and cutting department of an apparel manufacturing firm.

25. a) Discuss in detail the various quality control tests carried out for trims and accessories

(OR)

b) (i) Tabulate the tolerance limits for various measurements of a finished woven shirt. (6)

(ii) What is the significance of quality cost? Explain how quality cost can be divided in the context of garment manufacturing. (8)
