KUMARAGURU
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B.TECH. DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Fourth Semester

FASHION TECHNOLOGY

U18FTT4002: Apparel Machinery and Equipment

COURSE OUTCOMES

CO1: Acquire knowledge in different methods of spreading of fabrics with respect to type of fabric and to Evaluate the marker efficiency.

CO2: Describe the basic principles of working of different types of cutting machineries used in apparel production

CO3: Test the settings and adjustment parts of sewing machines

CO4: Develop skills for recognizing various parts and their working principles in advanced garment sewing machines.

CO5: Acquire knowledge on special machineries used in apparel production

CO6: Express the importance and the audit of sewing machinery maintenance.

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Matching type item with multiple choice code   CO1 [K3]

List I	List II
A. Pattern making and grading	i. Diazo photo electric
B. Marker planning	ii. Modaris
C. Cutting	iii. Gerber
D. Marker duplicating	iv. Diamino

	A	B	C	D
a)	ii	i	iii	Iv
b)	iii	iv	ii	I
c)	ii	iv	iii	i
d)	iii	i	ii	iv

2. Select the range of marker efficiency obtained in apparel industry.   CO1   [K3]

   a) 10%-20%   b) 30%-40%

   c) 60%-70%   d) 80%-90%

3. Select the processes relevant to cutting department in apparel manufacturing. CO2 [K3]

    1. Spreading

    2. Sewing

    3. Finishing

    4. Cutting

a) 1,3   b) 1,4

c) 1,2   d) 2,3

4. Identify a single - layer cutting system CO2 [K3]

a) Straight knife   b) Band knife cutting

c) Laser cutting   d) Die cutting

5. Assertion (A): The eye of a sewing needle is normally provided with nickel coating. CO3 [K1]

Reason (R): Nickel coating reduces heat due to the friction between metal and thread and helps to reduce sewing thread breakage.

a) Both A and R are Individually true and R is the correct explanation of A   b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false   d) A is false but R is true

6. Select the role of the shuttle hook CO3 [K1]

a) To make a loop from top thread   b) To move fabric

c) To make a stitch   d) To adjust tension

7. Sequentially arrange the processes given with respect to overlock machine. CO4 [K2]

    1. Feeding

    2. Sewing

    3. Trimming

    4. Delivery

a) 2-3-4-1   b) 1-3-2-4

c) 3-4-2-1   d) 4-1-3-2

8. Identify a machine where needle is positioned at 45 degree angle CO4 [K3]

a) Over lock   b) Bar tack

c) Flatlock   d) Sine needle lock stitch sewing machine

9. Assertion (A): Bar tack stitch is provided at belt loops and shirt pockets. CO5 [K3]

Reason (R): Bar tack stitch strengthens the parts where frequent force is applied.

a) Both A and R are Individually true and R is the correct explanation of A   b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false   d) A is false but R is true

10. Select the frequency of oiling of important parts of a swing machine in industry　　CO6 [K₃]

    a)   Daily   b)   Monthly

    c)   Yearly   d)   Weekly

PART B (10 x 2 = 20 Marks)
(Answer not more than 40 words)

11.	List the factors which influence marker efficiency.	CO1	[K₁]
12.	Outline the salient features of automatic spreading machine.	CO1	[K₂]
13.	Explain the principle of laser cutting.	CO2	[K₂]
14.	Band knife cutting machine is the most suitable for cutting curved parts. Justify.	CO2	[K₄]
15.	List any four major parts of a sewing machine.	CO3	[K₁]
16.	Analyze the causes and remedies of seam puckering.	CO3	[K₄]
17.	Outline the function of feed dog.	CO4	[K₁]
18.	Explain the function of loop spreader.	CO4	[K₂]
19.	Analyze the importance of bar tack stitch.	CO5	[K₄]
20.	Outline the function of blind stitch sewing machine.	CO6	[K₁]

Answer any FIVE Questions:-
PART C (5 x 14 = 70 Marks)
(Answer not more than 300 words)

Q.No. 21 is Compulsory

21.	Explain in detail the working of an automatic spreading machine.	CO1	[K₂]
22.	Explain in detail the working of straight knife cutting machine with a neat sketch.	CO2	[K₂]
23.	Analyze the common sewing problems occurring in a basic sewing machine with remedies.	CO3	[K₄]
24.	Explain in detail the important parts of an over lock machine.	CO4	[K₂]
25.	Explain in detail any two special purpose sewing machines and its importance in apparel manufacturing.	CO5	[K₂]
26.	Classify machine maintenance and develop a sewing machine maintenance record.	CO6	[K₆]
27.	Analyze the requirements of a spreading process.	CO1	[K₄]

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