Register Number:……..

KUMARAGURU
college of technology
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B.E/B.TECH DEGREE EXAMINATIONS: MAY 2018

(Regulation 2015)

Sixth Semester

FASHION TECHNOLOGY

U15FTT603: Textile and Apparel Quality Evaluation

COURSE OUTCOMES

CO1: Acquire knowledge in sampling techniques of fibers, yarns and fabrics and also in various method of measuring yarn number
CO2: Apply knowledge in principles of working of yarn testing instruments
CO3: Apply knowledge in principles of working of fabric testing instruments
CO4: Correlate knowledge in evaluation of fabric handle properties
CO5: Acquire knowledge on testing instruments used for accessories
CO6: Analyze knowledge in the measurement of fastness properties of fabrics

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 CO4 [K_2]

List I	List II
A. Wear & abrasion resistance	i. Shirting, suiting
B. Bursting Strength	ii. Ribbon, tapes, bandage cloth
C. Tensile strength	iii. Parachute fabrics, Nonwovens
D. Tear Strength	iv. Work man's Cloth

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

2. If the weight of the sample is reduces to 100 grains from 105 grains then its moisture content & regain would be _____ CO1 [K_3]

a) 4.76%, 5% b) 5%, 5%

c) 4 %, 5.76% d) 4.5%, 5.5%

3. Fastness properties of the fabric depends on various parameters such as CO6 [K_2]

   1. Nature and depth of shade of the dyestuff used
   2. Nature & type of the fibre
   3. Method of dyeing or printing employed
   4. Conditions prevailing during the process.

a) 1,3,4 b) 2,4

c) 1,4 d) 1,2,3,4

4. While extend a strip of fabric in one direction, crimp is removed and threads are straightened, which cause the other direction crimp of threads is increased known as CO3 [K_2]

a) Crimp removal b) Crimp interchange

c) Crimp reduction d) Crimp exchange

5. Assertion (A): Colour fastness is to determine how much the colour will fade when exposed to daylight. CO6 [K_2]

Reason (R): Certain end products require a high resistance to fading because of their exposure to light during use

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. If specimen size larger than jaw width during tensile testing it belongs to the class of CO3 [K_2]

a) Raveled strip method b) Cut strip method

c) Unraveled strip method d) Grab method

7. Arrange the following classimat faults based on fault length & fault size CO3 [K_2]

   1. I2 2. E 3.D4 4.C4 5.B2 6.A1

a) 1,3,5,2,4,6 b) 6,5,4,3,2,1

c) 1,2,3,4,5,6 d) 2,4,6,1,3,5

8. If two single yarns have Z twist & during doubling, twist is given in the Z direction is termed as CO2 [K_2]

a) Twist on twist b) Weft on twist

c) Corkscrew twist d) Balanced twist

9. **Assertion (A):** Bending of fabric indicates the interaction between fabric weight and its stiffness. CO4 [K_2]

Reason (R): It reflects the stiffness of a fabric when bend in one plane under the force of gravity.

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. Durability of finish of zippers to laundering is evaluated by the test specimen through CO6 [K_2]

a) Crock meter

b) Xenometer

c) Perspirometer

d) Laundrometer

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

11. Elaborate yarn numbering system & its types? CO1 [K_2]
12. Define Moisture content & Moisture regain. CO1 [K_2]
13. Differentiate Random variation from periodic variation with examples. CO2 [K_2]
14. Classify yarn faults based on fault length & size as per Uster standards. CO2 [K2]
15. Outline the parameters which influences on fabric crimp properties. CO3 [K2]
16. Knitted fabrics are not suitable for testing abrasion resistance, Justify? & suggest which instrument is preferable. CO3 [K_3]
17. Outline the various factors which influences fabric handle properties. CO4 [K_2]
18. Define Air permeability & Air resistance. CO4 [K_2]
19. Synthetic fibers are less resistant to pilling, Justify? & state the factors which affect pilling? CO4 [K3]
20. Discuss the various types of shrinkage occur in fabrics. CO6 [K_2]

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

Q.No. 21 is Compulsory

21. Define sampling and various factors which influences sampling & Discuss the zoning technique, sampling techniques for yarn & fabrics. CO1 [K_2]

22. Calculate the following — CO1 [K5]

(1) a. If the metric count of the fibre is 50 Nm. Find out the count in Nf, Ne and Nw. (3)

b. If the Tex of the yarn is 450 what will be the count in Ne, Nm, and denier. (3)

(2) a. The length of the yarn is 2500 meters and the weight is 10 grams, what will be the count in Nf, Nm and denier. (4)

b. If the length of the yarn 10000 meters and the weight is 5 grams. find the count in denier and tex. (4)

23. Define hairiness, its causes & effects on yarn parameters & Explain any one instrument used for measuring yarn hairiness. — CO2 [K2]

24. Demonstrate the following with respect to fabric particulars — CO3 [K_2]

1. Measurement of fabric abrasion resistance. (7)
2. Various methods of measuring tear strength. (7)

25. Brief the measure of water permeability of fabrics through Spray test & drop penetration test? — CO4 [K_2]

26. Explain the following — CO4 [K_2]

i. Assessment of fabric drape. (7)

ii. Measurement of Air permeability. (7)

27. Outline how the fastness properties of dyed fabrics are evaluated through rubbing & washing fastness tester. — CO6 [K3]

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