

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2024
(Second Semester)

Branch - COSTUME DESIGN AND FASHION

FUNCTIONAL FINISHING ON TEXTILES

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which components are mostly used in the soil release finishes? a. Chemicals b. Organosilicon compounds c. Carcinogenic materials d. Natural soils	K1	CO1
	2	What is the purpose of softening finishes? a. To make the fabric stiff b. To change the shape of the fabric c. To make the fabric soft hand, flexible and pliable d. To improve the surface tension of the fabric	K2	CO1
2	3	What chemical is commonly used for flame retardant finishes on cellulosic fibres? a. Phosphorus compounds b. Celcofin-SO c. A mixture of boric acid/borax d. Tri-Sodium Phosphate	K1	CO2
	4	How would you express water repellent in functional finishes? a. It means that it is hydrophobic and can resist wetting b. It means that it is not designated to withstand any heavy water c. It provides the highest quality of water protection from rain or water d. It is impermeable to water	K2	CO2
3	5	What are the ultimate objectives of antimicrobial finishes on textile fabrics? a. To improve the aesthetic properties of textiles b. To protect against bacteria and mould c. To influence the handle and drape of the fabrics d. To protect the user against the transfer of pathogenic germs	K1	CO3
	6	From the following, identify the biodegradable natural polymers in the preparation of nanoparticle microencapsulation a. Sugar based Polyacetic acid b. Gelatin, albumin and collagen c. Polyglycolide acid d. Butadiene acrylonitrile	K2	CO3
4	7	Which enzyme is mostly used for denim finishing? a. Lactases b. Catalases c. Proteases d. Cellulases	K1	CO4
	8	Which type of wet processing treatment is most suitable and energy-efficient for natural fibres? a. Chemical treatment b. Alkaline treatment c. Acid treatment d. Enzymatic treatment	K2	CO4
5	9	Which commercial enzyme is commonly used in the desizing of cotton textiles? a. Sodium Persulfate b. Peptine c. Amylases d. Cellulases	K1	CO5
	10	Identify the test method for bacterial Alpha-amylase enzymes used in desizing a. AATCC TM 98 b. AATCC TM 103 c. AATCC TM 107 d. AATCC TM 93	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	How would you present the concept of enzymatic bio finishes?	K3	CO1
		(OR)		
	11.b.	What approach would you use to identify the soil release finishes?		
2	12.a.	How would you apply ASTM standards for protective garments?	K3	CO2
		(OR)		
	12.b.	Compare and contrast waterproofing and water repellency on textile fabrics .		
3	13.a.	What do you think about the Sol-gel technology? Explain.	K4	CO3
		(OR)		
	13.b.	How would you analyze the microencapsulation technology on textile fabrics?		
4	14.a.	Infer the uses of enzymes in textile finishing.	K4	CO4
		(OR)		
	14.b.	List the relationship between the surface modification and fictionalization of synthetic fibres.		
5	15.a.	Based on what you know, how would you explain the drying rate of textiles at their absorbent capacity?	K5	CO5
		(OR)		
	15.b.	Critically analyze the moisture analyzer method.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyze the finishes to improve the comfort and performance of textile materials.	K4	CO1
2	17	Examine the effect of radiation protection finishes and ballistic protection finishes for protective wearers.	K4	CO2
3	18	Find the application of plasma and nanotechnology of antimicrobial finish on textile fabrics.	K5	CO3
4	19	Examine the enzymatic processing of natural fibres.	K4	CO4
5	20	Evaluate the performance of textile fabrics in terms of its liquid moisture management properties.	K5	CO5