25CDU101

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2025
(First Semester)

Branch – **COSTUME DESIGN AND FASHION**

TEXTILE SCIENCE

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 fibre is called as "Golden Fibre"? a) Cotton b) Jute c) Silk d) Coir	K1	CO1
	2	Explain why wool keeps us warm in winter. a) It is smooth b) It traps air (poor conductor of heat) c) It is heavy d) It absorbs water	K2	CO1
2	3	Name one common use of polyester fibre. a) Raincoats b) Sarees c) Sweaters d) Bedsheets	K1	CO2
	4	State one reason why the polyester is widely used in textile industry. a) Wrinkles easily b) Is durable c) Absorbs moisture d) Is costly	K2	CO2
3	5	Which machine is called the "Heart of spinning"? a) Carding machine b) Drawing machine c) Comber machine d) Roving machine	K1	CO3
	6	Why is drawing carried out after carding? a) To remove dirt from fibres b) To make yarn stronger c) To straighten and parallelize fibres d) To add twist to fibres	K2	CO3
4	7	Name the machine used to remove short fibres and impurities in combing. a) Carding machine b) Comber machine c) Drawing machine d) Roving machine	K1	CO4
	8	Why is friction spinning suitable for coarse yarn? a) Gives fine yarn b) Handles bulk fibres c) Uses less twist d) Removes impurities	K2	CO4
5	9	Name the two types of twist in yarn. a) Z-twist and S-twist b) Hard twist and Soft twist c) Clockwise twist and Anti-clockwise twist d) Left twist and Right twist	K1	CO5
	10	Why is ply yarn stronger than single yarn? a) It is thicker b) It has more twist & strength c) It is softer d) It is cheaper	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.	List and explain the steps in fibre extraction process of jute.	K1	CO1
		(OR)		
	11.b.	State the physical and chemical properties of silk fibre.		
2	12.a.	Explain why nylon is used for ropes and fishing nets.	K2	CO2
		(OR)		
	12.b.	Compare the properties of acrylic fibre with natural fibres.		
3	13.a.	Demonstrate how the objectives of ginning and carding are interconnected in producing spinnable fibre. Give suitable examples.	K3	CO3
		(OR)		
	13.b.	Apply the concept of fibre alignment to explain how drawing enhances strength and uniformity of yarn.		
4	14.a.	Apply the principles of drafting and twisting and explain how sliver lap forming is carried out.	K3	CO4
		(OR)		
	14.b.	Illustrate with the examples, the consequences of improper winding on downstream weaving or knitting process		
5	15.a.	Illustrate how the method of fancy yarn formation affects its strength, appearance and suitablity for different types of textiles.	K3	CO5
		(OR)		
	15.b.	Demonstrate the effect of plying direction on yarn balance and fabric behaviour.		

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	Define textile fibres and state the classification of textile fibres.	K1	CO1
2	17	Discuss the quality standards and uses of polyester and acrylic fibres.	K2	CO2
3	18	Construct the process sequence of spinning preparatory and explain each stage briefly.	K3	CO3
4	19	Examine the ring spinning process and analyze the functions of its main parts.	K4	CO4
5	20	Assess how yarn twist level influences fabric properties such as strength, elasticity, and handle.	K5	CO5

Z-Z-Z END