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Entrance Exam. For Ph. D. (Textile Engineering)

Q1: Tuck stitch in knitting makes fabric

a) Narrow
b) Thinner
c) More rigid in course direction
d) Wider and porous

Q2: With time, wind per double traverse in a drum-driven winder

a) Increases
b) Decreases
c) Remains constant
d) First increases and then decreases

Q3: In a loom, seven-wheel take-up motion is

a) Negative and intermittent
b) Negative and continuous
c) Positive and intermittent
d) Positive and continuous

Q4: Match the weave in Group I with fabric attribute in Group II.

Group I	Group II
P. Plain	1. Holes in fabric
Q. 2 up 1 down twill	2. High tear resistance
R. 7 end satin	3. High shear resistance
S. Mock leno	4. Continuous diagonal line

(A) P-3, Q-4, R-2, S-1

(B) P-1, Q-4, R-2, S-3

(C) P-3, Q-4, R-1, S-2

(D) P-3, Q-1, R-2, S-4

Q5: Pirn winding is an essential preparatory process for weaving on

a) Air-jet loom
b) Water-jet loom
c) Rapier loom
d) Drop-box loom

Q6: In drum winding, package density is independent of

a) yarn tension
b) applied package density
c) yarn strength
d) angle of wind

Q7: Match the looms listed in Group I with the corresponding components given in Group II. The correct option is

Group I	Group II
P. Shuttle loom	1. Beat-up comb
Q. Projectile loom	2. Torsion rod
R. Air-jet loom	3. Crank shaft
S. Multiphase loom	4. Relay nozzles

(A) P-1, Q-3, R-4, S-2 (B) P-3, Q-2, R-1, S-4

(C) P-3, Q-2, R-4, S-1 (D) P-1, Q-2, R-3, S-4

Q8: The gum in the raw silk filament is

a) Wax
b) Lignin
c) Sericin
d) Fibroin

Q9: Adipic acid is a monomer for the production of

a) Nylon 610
b) Nylon 66
c) Poly(ethylene terephthalate)
d) Nylon 64

Q10: Jigger cannot be used for

a) Dyeing
b) Printing
c) Washing
d) Scouring

Q11: Which one of the following is a leaf fibre?

a) Coir
b) Sisal
c) Jute
d) Hemp

Q12: I n dyeing of wool with levelling acid dyes, with time, the pH of dye bath

a) Increases
b) Decreases
c) Remains constant
d) First increases and then decreases

Q13: Amongst the following, the suitable technology for producing core spun yarn is

a) Air vortex spinning

b) Rotor spinning
c) Friction spinning
d) Air-jet spinning

Q14: Birefringence of a filament yarn is related to its

a) Crystallinity
b) Orientation
c) Individual filament denier
d) Density

Q15: A machine that does not improve mass evenness

a) Drawframe
b) Ring doubler
c) Speedframe
d) Ribbon lap

Q16: Out of the following, the one which is not a surfactant is

a) Reducing agent
b) Wetting agent
c) Detergent
d) Dispersing agent

Q17: Microbes growing on clothing derive nutrition from

a) Activated carbon
b) Ferrous sulphate
c) Hydrogen peroxide
d) Sodium chloride

Q18: Amongst the following, the only naturally extruded fiber is

a) Wool
b) Cotton
c) Hemp
d) Silk

Q19: A 5cm long filament is drawn to 20cm. The draw ratio is

a) 2
b) 3
c) 4
d) 5

Q20: Jute, flax and ramie belong to the family of

a) Hair fibers
b) Bast fibers
c) Leaf fibers
d) Fruit fibers

Q21: With increasing twist, spun yarn strength

a) Increases continuously
b) Decreases continuously
c) Decrease initially and then increases
d) Increase initially and then decreases

Q22: Uniformity ratio for normal variety of cotton is in the range

a) 0.2-0.3
b) 0.4-0.5
c) 0.7-0.8
d) 0.9-1

Q23: Nylon 6, nylon 66, wool and silk can be classified as

a) Polyethers
b) Polyesters
c) Polyamides
d) Polyolefins

Q24: Singeing of cotton fabrics results in

a) Improved strength
b) Improved performance during printing
c) Decrease crease recovery
d) Increased bending rigidity

Q25: Bleaching cotton fabric is commercially done using

a) Sodium Bisulphite
b) Sodium Chlorate
c) Sodium Chlorite
d) Sodium Chloride

Q26: The direct dyes, under the condition of dyeing, are

a) Cationic
b) Anionic
c) Nonionic
d) Amphoteric

Q27: Nylon 6 and Nylon 66 filament can be distinguished by

a) Melting point test
b) Burning test
c) Optical microscopy
d) Density measurement

Q28: Loom shed efficiency due to warp stop increases in the case of

a) Wider loom
b) Uneven warp
c) Heavy sett
d) Less hairy warp

Q29: Spinning- in coefficient refers to

a) Spinning limit
b) Spin-in fiber length
c) Limiting CV% of yarn
d) Intensity of migration

Q30: On a classimat, as compared to the yarn faults B2, the fault D3 is

a) Thinner and longer
b) Thicker and longer
c) Thinner and shorter
d) Thicker and shorter

Q31: The unit of shear rigidity is

a) N.m
b) N/m
c) N/(m.deg)
d) N.deg/m

Q32: The typical value of breaking elongation of wool under standard atmospheric condition is

a) 5%
b) 10%
c) 25%
d) 40%

Q33: Number average molecular weight of spinnable textile grade polyester is approximately

a) 12,000
b) 18,000
c) 30,000
d) 40,000

Q34: Cellulase is used for

a) Desizing
b) Reducing surface tension of the wash liquor
c) Bio-polishing of cotton fabrics
d) Removing proteins impurities during scouring

Q35: A well known flame retardant is

a) DMDHEU
b) Rongalite
c) THPC
d) Polydimethyl siloxane

Q36: Among the following yarns, the finest is

a) 40s Ne

b) 40 tex
c) 40 denier
d) 100s Ne

Q37: The optimum condition for bleaching with sodium chlorite are

a) pH 12; room temperature
b) pH 10.5; boil
c) pH 7; 60°C
d) pH 4.5; 80oC

Q38: Dyeing of cellulose with direct dyes is

a) An exothermic process
b) An endothermic process
c) An athermic process
d) Not a thermodynamic event

Q39: Shrinkageproofing of the worsted fabrics can be done by

a) Zirpro process
b) Intrafibre crosslinking
c) Wurlan process
d) Steaming

Q40: Length of 20 tex polyester/cotton yarn in km on a 2 kg cone will be equal to

a) 50
b) 100
c) 150
d) 200

Textile

Answer Key

Question	Answer	Question	Answer
1	D	29	B
2	B	30	B
3	C	31	D
4	A	32	D
5	D	33	B
6	C	34	C
7	C	35	C
8	C	36	C
9	B	37	D
10	B	38	A
11	B	39	C
12	A	40	B
13	C		
14	B		
15	C		
16	A		
17	B		
18	D		
19	C		
20	B		
21	D		
22	B		
23	C		
24	B		
25	C		
26	B		
27	A		
28	C		