

100/2014

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Which is the first synthetic fiber developed by Wallace Carothers at the chemical firm DuPont in 1930?
 - (A) Polyester
 - (B) Nylon
 - (C) Acrylic
 - (D) Polyolefin

2. It is the ratio of the actual vapour pressure to the saturated vapor pressure at the same temperature expressed as a percentage :
 - (A) Relative humidity
 - (B) Absolute humidity
 - (C) Moisture content
 - (D) Moisture Regain

3. The standard regain value of wool is :
 - (A) 17%
 - (B) 7%
 - (C) 70%
 - (D) 0.7%

4. It is an atmosphere with a relative humidity of $65 \pm 2\%$ and a temperature of $20 \pm 2^\circ\text{C}$ ($68 \pm 4^\circ\text{Fh}$) :
 - (A) Standard atmospheric condition
 - (B) Standard atmosphere
 - (C) Standard condition of atmosphere
 - (D) Standard Testing atmosphere

5. Select the Bale Plucker from the following :
 - (A) L/R RSB 851
 - (B) L/R Aero feed
 - (C) Blendomat-BDT
 - (D) Multi mixer

6. Piano feed regulating motion is found in :
 - (A) Carding engine
 - (B) Draw frame
 - (C) Blow room
 - (D) Speed frame

7. Fabrics made with inter looping of yarns - most suitable term is :
- (A) Woven fabrics (B) Net fabric
(C) Lace fabric (D) Knitted fabrics
8. Beating-up in a power loom come under :
- (A) Secondary motion (B) Primary motion
(C) Tertiary motion (D) Auxiliary motion
9. It is also known as artificial silk :
- (A) Nylon (B) Acetate rayon
(C) Orlon (D) Viscose rayon
10. The colour of leuco compound of Vat black is :
- (A) Black (B) Brown
(C) Green (D) Violet
11. The result of fiber fineness test is found to be 6.0 MV. The fiber can be rated as :
- (A) Coarse fiber (B) Very fine fiber
(C) Medium fine fiber (D) Fine fiber
12. In Digital Fibrograph, fiber length is expressed in :
- (A) Mean length (B) Modal length
(C) Span length (D) Effective length
13. Removal of short fiber is the main object of :
- (A) Combing process (B) Carding process
(C) Blow room process (D) Drawing process
14. Ring frame Top roller nip load can be measured by :
- (A) ATIRA Nilometer (B) Stroboscope
(C) ATIRA TARP Gauge (D) Stelometer
15. Suitable Gin for processing long stapled cotton is :
- (A) Knife roller Gin (B) Macarthy Gin
(C) Saw knife Gin (D) Saw Gin

16. It is an example of Semi fast gripped feeding saw tooth Beater/opener :
- (A) Porcupine opener (B) Shirley opener
(C) Crighton opener (D) Krischner's beater
17. Lakshmi Reiter Polar drafting is a :
- (A) 3-over-5 roller drafting system (B) 5-over-3 roller drafting system
(C) 3-over-4 roller drafting system (D) 4-over-3 roller drafting system
18. Shore hardness of top roller cots of ring frame ranges :
- (A) 30° to 60° (B) 60° to 90°
(C) 20° to 50° (D) 10° to 40°
19. Function of this part in the card is to alter setting between flats and cylinder :
- (A) Cylinder Arch (B) Concentric bends
(C) Flexible bends (D) Front plate
20. Cross roll Verga unit in card is a :
- (A) Carding device (B) Feeding device
(C) Pre carding device (D) Doffing device
21. In a steep twill the angle of twill line is :
- (A) 45° (B) Below 45°
(C) Less than 30° (D) More than 45°
22. It is an example of broken and reverse twill fabric structure :
- (A) Hock a back weave (B) Satin weave
(C) Herring bone weave (D) Sateen weave
23. It is a fabric structure which is a modification of plain weave :
- (A) Honey comb weave (B) Hopsack weave
(C) Bedford cord weave (D) Satin weave
24. The empty space run lengthwise through the centre of the cotton fiber is termed as :
- (A) Lumen (B) Cuticle
(C) Primary wall (D) Secondary wall

25. Bast fibers are extracted by this process :
- (A) Shearing (B) Retting
(C) Ginning (D) Croissure
26. In this shedding the warp is only moved when the pattern requires a change of position :
- (A) Centre closed shedding (B) Bottom closed shedding
(C) Top closed shedding (D) Open shedding
27. Function of this unit in a loom is to grip the cloth so that it is held at the same width as the warp in the reed :
- (A) Temples (B) Breast beam
(C) Lease rods (D) Emery roller
28. 60^e English yarn count is approximately equivalent to :
- (A) 30 Tex (B) 60 Tex
(C) 10 Tex (D) 120 Tex
29. Type of top rollers used in modern high speed draw frames are :
- (A) Loose boss rollers (B) Solid rollers
(C) Loose bush rollers (D) Fluted rollers
30. In carding web material is converted to sliver by :
- (A) Doffer (B) Doffer comb
(C) Calendar roller (D) Trumpet
31. Organ fixed between the top and bottom apron to control the movement of strand of fibers :
- (A) Spacer (B) Nose bar
(C) Apron cradle (D) Condenser
32. Sizing is done on :
- (A) Weft yarn (B) Warp yarn
(C) Hosiery yarn (D) Cone yarn
33. Congo red dyestuff belongs to this group :
- (A) Oxidised dyes (B) Dispersed dyes
(C) Acid dyes (D) Direct dyes

34. Principal object of the Stenter machine is to :
- (A) Control the width of the fabric (B) Control the length of the fabric
(C) Improve the luster of the fabric (D) Improve the strength of the fabric
35. Molten wax is used to produce designs in this style of printing :
- (A) Discharge (B) Direct
(C) Resist (D) Azoic
36. Sanforising is a :
- (A) Anti static finish (B) Anti shrink finish
(C) Anti crease finish (D) Anti Phil finish
37. Fastness to perspiration of Direct coloured materials can be improved by the treatment with :
- (A) Copper sulphate (B) Potassium dichromate
(C) Formaldehyde (D) Sodium phosphate
38. Fibers which are not in the nip of either drawing and retaining rollers are termed as :
- (A) Hooked fibers (B) Curled fibers
(C) Short fibers (D) Floating fibers
39. Percentage of trailing hooked fibers found in a card sliver is :
- (A) 45% to 65% (B) 70% to 80%
(C) 15% to 35% (D) 30% to 40%
40. Ratio between surface speed of delivery roller to feed roller is termed as :
- (A) Tension draft (B) Mechanical draft
(C) Break draft (D) Actual draft
41. Standard moisture regain of cotton, wool, acetate and silk, in the decreasing order is :
- (A) Wool > Acetate > Cotton > Silk (B) Wool > Silk > Cotton > Acetate
(C) Wool > Cotton > Silk > Acetate (D) Wool > Silk > Acetate > Cotton
42. Souring is a process to :
- (A) Remove size
(B) Remove wax
(C) Neutralize the substrate after alkaline treatment
(D) Improve strength

43. The ability of a fabric to assume a graceful appearance in use is termed as :
- (A) Drape (B) Wear
(C) Resilience (D) Flexibility
44. Bursting strength is important for this type of fabric :
- (A) Suiting's (B) Curtain fabrics
(C) Toweling fabric (D) Filter fabric
45. It is not a measure of scattering :
- (A) Arithmetic mean (B) Mean range
(C) Mean deviation (D) Variance
46. Standard regain of 80/20 Polyester Viscose blend is :
- (A) 3.98% (B) 2.92 %
(C) 4.80% (D) 7.20%
47. The power of recovery from a given extension is expressed by the term :
- (A) Elastic extension (B) Yield stress
(C) Elastic recovery (D) Yield strain
48. Taker-in to feed plate setting for processing a short stapled cotton :
- (A) 4 thou (B) 12 thou
(C) 16 thou (D) 8 thou
49. A compact lap is produced in Blow room by the help of :
- (A) Calendar rollers (B) Piano feed regulating mechanism
(C) Condenser (D) Rack and brake mechanism
50. Bottom cylinder of the comber fitted with combing segment is otherwise known as :
- (A) Top nipper (B) Half lap
(C) Bottom nipper (D) Full lap
51. It is not an auxiliary motion of a power loom :
- (A) Side weft fork motion (B) Loose reed motion
(C) Let-off motion (D) Warp stop motion

52. Weak link effect is a term concerned with :
- (A) Strength test (B) Drape test
(C) Evenness test (D) Fineness test
53. The loom parts Duck bill and hitter found in :
- (A) Warp easing motion (B) Let-off motion
(C) Fast reed motion (D) Loose reed motion
54. The fall in surface speed of top rubber covered roller when the material passing between top and bottom roller is termed as :
- (A) Roller slip (B) Roller lapping
(C) Draft (D) Roller cots
55. Chemical Burr extraction from the wool is known as :
- (A) Chlorination (B) Carbonization
(C) Scouring (D) Bleaching
56. Hydrophobic fibers are mainly dyed with this group of colours :
- (A) Oxidized (B) Mineral
(C) Dispersed (D) Mordant
57. Naphthols are dissolved in :
- (A) Sodium hydroxide (B) Calcium hydroxide
(C) Phenol (D) Hydrochloric acid
58. The loom parts hammer lever and cam found in :
- (A) Under pick mechanism (B) Centre weft fork motion
(C) Side weft fork motion (D) Over pick mechanism
59. Two most important fiber properties which are affected by fiber fineness are :
- (A) Resistance to bending and strength
(B) Stiffness and torsional rigidity
(C) Stiffness and strength
(D) Resistance to twisting and strength
60. The ATIRA fiber fineness instrument working on :
- (A) Diesel oil flow principle (B) Kerosene oil flow principle
(C) Water flow principle (D) Air flow principle

61. The immature cotton fibers after treatment with 18 % caustic Soda found to be :
(A) Rod like appearance (B) Curled ribbon like appearance
(C) Round like appearance (D) Flat like appearance
62. It is the ratio between force applied and linear density :
(A) Mass stress (B) Tenacity
(C) Stress (D) Strain
63. Silk, wool, flax and rayon can be considered as :
(A) Cellulose fibers (B) Polyamide fibers
(C) Synthesized fibers (D) Lustrous fibers
64. Silk gum is otherwise known as :
(A) Fibroin (B) Fats and wax
(C) Sericin (D) Mineral salts
65. When the denier of a fiber is doubled, its diameter increases by :
(A) Two times (B) Four times
(C) 0.41 times (D) 1.41 times
66. In a modern cotton ring frame maximum spindle speed is around :
(A) 11000 rpm (B) 16000 rpm
(C) 28000 rpm (D) 22000 rpm
67. The rate of printing production is highest on :
(A) Roller printing (B) Screen printing
(C) Block printing (D) Flat bed printing
68. Weight of 1 lea of 60 s cotton yarn is approximately :
(A) 2 grams (B) 4 grams
(C) $\frac{1}{2}$ gram (D) 1 gram
69. Optimum condition for bleaching cotton with hydrogen peroxide is :
(A) pH 7, boil (B) pH 7, 60°
(C) pH 10, 60° (D) pH 10, boil

70. The kind of abrasion occurs at folds and collars can be termed as :
- (A) Plane abrasion (B) Flex abrasion
(C) Edge abrasion (D) Flat abrasion
71. In ate picking, the shuttle enters the shed when the going part of the loom is nearer to the :
- (A) Lop centre (B) Back centre
(C) Bottom centre (D) Front centre
72. Weft patterns in fabrics can be produced by :
- (A) Fast reed motion (B) Loose reed motion
(C) Multiple box motion (D) Jacquard shedding motion
73. If the actual draft is 100 and waste removed is 5%, the mechanical draft in a card is :
- (A) 105 (B) 150
(C) 50 (D) 95
74. It is not an example of cross weaving :
- (A) Mock leno (B) Net leno
(C) Madras muslin (D) Cellular leno
75. Tension type twist tester working on :
- (A) Untwist method (B) Optical method
(C) Untwist and retwist method (D) Twist to break method
76. In transfer printing, designs are produced by using :
- (A) Roller (B) Paper
(C) Block (D) Screen
77. Lea strength tester is working on :
- (A) Ballistic principle (B) Pendulum lever with CRL principle
(C) Pendulum lever with CRT principle (D) Impact principle

78. By testing 1000 cotton fibers, 670 fibers found to be mature and 70 is immature. The maturity co-efficient of the cotton is :
- (A) 0.65 (B) 0.95
(C) 0.75 (D) 0.85
79. Diazotization of a base can be done with HCL and :
- (A) Sodium chlorite (B) Sodium nitrite
(C) Sodium hypochlorite (D) Sodium Sulphate
80. With increasing twist , spun yarn strength :
- (A) Increases initially and decreases (B) Increases continuously
(C) Decreases initially and increases (D) Decreases continuously
81. The length of one pound of 100^s cotton yarn is approximately :
- (A) 84000 meters (B) 76810 meters
(C) 91862 meters (D) 184800 meters
82. Winding and binding ratio is a term in :
- (A) Cone winding (B) Fly frame bobbin winding
(C) Ring cop winding (D) Warping
83. Time in second required for 1 cubic cm of air to pass through 1 sq. cm of fabric under a pressure of 1 cm head of water is termed as :
- (A) Air porosity (B) Air content
(C) Air permeability (D) Air resistance
84. The middle value of a series of values arranged in order of magnitude is termed as :
- (A) Mean (B) Arithmetic Mean
(C) Mode (D) Median
85. Without altering spindle speed, Ring frame production can be increased by :
- (A) Increasing TPI (B) Reducing TPI
(C) Increasing ring rail traverse (D) Changing direction of twist

86. Keighley dobby is an example of :
- (A) Single lift open shed dobbies (B) Double lift open shed dobbies
(C) Single lift centre closed dobbies (D) Double lift centre closed dobbies
87. This group of dyestuff has no direct affinity towards textile fibers :
- (A) Mordant dyes (B) Acid dyes
(C) Basic dyes (D) Sulphur dyes
88. Adipic Acid (ADA) and Hexamethylene diamine (HMD) are used as raw materials for :
- (A) Nylon 66 polymer (B) Polyester
(C) Acrylic (D) Viscose rayon
89. Total number of needles in a double lift double cylinder 400 hook jacquard is :
- (A) 816 (B) 800
(C) 408 (D) 400
90. This material is prepared by progressive hydrolysis of starches using acids or at high temperature :
- (A) Gum arabic (B) British gum
(C) Gum tragacanth (D) Locust beam gum
91. The production/hour of a single delivery Draw frame with 1000 MPM delivering 5gm/meter silver is :
- (A) 12 Kg (B) 5 Kg
(C) 300 Kg (D) 600 Kg
92. The fabric test conducted on Elmendorf Tearing Tester is a :
- (A) Trapezoid tear test (B) Wing rip tear test
(C) Tongue tear test (D) Single rip ballistic test
93. Crease recovery can be measured quantitatively by Shirley crease recovery tester in terms of :
- (A) Crease recovery length (B) Crease recovery percentage
(C) Non creasing capacity (D) Crease recovery angle

94. Appearance of pills is more prominent in _____ fabrics.
- (A) Synthetic (B) Cotton
(C) Silk (D) Linen
95. Waviness imparted to the threads in a fabric is called :
- (A) Pills (B) Crimp
(C) Twist (D) Hairiness
96. A Nep imperfection in a Uster evenness tester is defined as a fault of :
- (A) Length 1cm and cross section 50% (B) Length 1cm and cross section 200%
(C) Length 1mm and cross section 200% (D) Length 1mm and cross section 50%
97. Resultant count of a cotton plied yarn composed of 24^s and 40^s is :
- (A) 64^s (B) 15^s
(C) 32^s (D) 16^s
98. Twist is inserted on roving by the help of :
- (A) Coiler and Can (B) Spindle and Front roller
(C) Spindle and flyer (D) Spindle, Ring and Traveler
99. Bunch formation in pirns helps :
- (A) Pirn changing mechanism (B) Shuttle changing mechanism
(C) To protect shuttle flying (D) Rapier mechanism
100. In the coupling bath of azoic dye, it is added as alkali binding agent :
- (A) Sodium sulphate (B) Ferrous sulphate
(C) Chromium sulphate (D) Aluminium sulphate