

POST GRADUATE COMMON ENTRANCE TEST-2017

DATE and TIME	COURSE	SUBJECT					
01-07-2017 2.30 p.m. to 4.30 p.m.	ME/M.Tech/M.Arch/ courses offered by VTU/UVCE/UBDTCE	TEXTILE TECHNOLOGY					
MAXIMUM MARKS	TOTAL DURATION	MAXIMUM TIME FOR ANSWERING					
100	150 Minutes	120 Minutes					
MENTION YOUR PGCET NO.							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">A</td> <td style="width: 10%;">F</td> <td style="width: 10%;">4</td> <td style="width: 10%;">6</td> <td style="width: 10%;">2</td> </tr> </table>			A	F	4	6	2
A	F	4	6	2			
QUESTION BOOKLET DETAILS							
VERSION CODE		SERIAL NUMBER					
A - 1		110004					

DOs :

1. Check whether the PGCET No. has been entered and shaded in the respective circles on the OMR answer sheet.
2. Ensure whether the circles corresponding to course and the specific branch have been shaded on the OMR answer sheet.
3. This Question Booklet is issued to you by the invigilator after the 2nd Bell i.e., after 2.25 p.m.
4. The Serial Number of this question booklet should be entered and the respective circles should also be shaded completely on the OMR answer sheet.
5. The Version Code of this question booklet should be entered on the OMR answer sheet and the respective circles should also be shaded completely on the OMR answer sheet.
6. Compulsorily sign at the bottom portion of the OMR answer sheet in the space provided.

DON'Ts :

1. **THE TIMING AND MARKS PRINTED ON THE OMR ANSWER SHEET SHOULD NOT BE DAMAGED / MUTILATED / SPOILED.**
2. The 3rd Bell rings at 2.30 p.m., till then;
 - Do not remove the paper seal / polythene bag of this question booklet.
 - Do not look inside this question booklet.
 - Do not start answering on the OMR answer sheet.

IMPORTANT INSTRUCTIONS TO CANDIDATES

1. This question booklet contains 75 (items) questions and each question will have one statement and four answers. (Four different options / responses.)
2. After the 3rd Bell is rung at 2.30 p.m., remove the paper seal / polythene bag of this question booklet and check that this booklet does not have any unprinted or torn or missing pages or items etc., if so, get it replaced by a complete test booklet. Read each item and start answering on the OMR answer sheet.
3. During the subsequent 120 minutes:
 - Read each question (item) carefully.
 - Choose one correct answer from out of the four available responses (options / choices) given under each question / item. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **only one response** for each item.
 - **Completely darken / shade the relevant circle with a BLUE OR BLACK INK BALL POINT PEN against the question number on the OMR answer sheet.**

Correct Method of shading the circle on the OMR answer sheet is as shown below :



4. Use the space provided on each page of the question booklet for Rough Work. Do not use the OMR answer sheet for the same.
5. After the last Bell is rung at 4.30 p.m., stop marking on the OMR answer sheet and affix your **left hand thumb impression** on the OMR answer sheet as per the instructions.
6. Handover the **OMR ANSWER SHEET** to the room invigilator as it is.
7. After separating the top sheet (KEA copy), the invigilator will return the bottom sheet replica (Candidate's copy) to you to carry home for self-evaluation.
8. Preserve the replica of the OMR answer sheet for a minimum period of **ONE year**.
9. Only **Non-programmable** calculators are allowed.

Marks Distribution

PART-1	: 50 QUESTIONS CARRY ONE MARK EACH (1 TO 50)
PART-2	: 25 QUESTIONS CARRY TWO MARKS EACH (51 TO 75)



TEXTILE TECHNOLOGY

PART – 1

(Each question carries one mark)

(50 × 1 = 50)

- | | |
|---|--|
| <p>1. Which of the following fibre is used to make parachute fabric ?</p> <p>(A) Cotton</p> <p>(B) Kevlar</p> <p>(C) Glass</p> <p>(D) Nylon</p> | <p>4. Which of the following is the coarsest variety cotton ?</p> <p>(A) MCL-15</p> <p>(B) CIS Raw Cotton</p> <p>(C) J-34 Cotton</p> <p>(D) Desi Cotton</p> |
| <p>2. Density of cotton fibre is</p> <p>(A) 0.9 gms/c.c</p> <p>(B) 1.54 gms/c.c</p> <p>(C) 1.34 gms/c.c</p> <p>(D) 2 gms/c.c</p> | <p>5. Lignin present in</p> <p>(A) Viscose</p> <p>(B) Silk</p> <p>(C) Cotton</p> <p>(D) Nylon</p> |
| <p>3. Moisture regain of polyester is</p> <p>(A) 4%</p> <p>(B) 8.5%</p> <p>(C) 4.5%</p> <p>(D) 0.4%</p> | <p>6. Material which is used to be blend with polyester staple fibre is</p> <p>(A) Cotton Staple Fibre</p> <p>(B) Cotton Card Sliver</p> <p>(C) Cotton Draw Frame Sliver</p> <p>(D) Cotton Combed Sliver</p> |

Space For Rough Work

7. If the fibre density is 1.5 gms/c.c, then the specific volume of the fibre is
- (A) 0.70 c.c/g
 - (B) 0.66 c.c/g
 - (C) 0.80 c.c/g
 - (D) 0.85 c.c/g
8. Lap rejection percentage in Blow room is
- (A) less than 5%
 - (B) less than 10%
 - (C) less than 2%
 - (D) less than 20%
9. Feeding speed of card is 2 mts/min and delivery speed is 200 mts/min, then the actual draft of card is
- (A) 50
 - (B) 25
 - (C) 100
 - (D) 75
10. Action of wire points between cylinder and flats is
- (A) Back to Point
 - (B) Point to Point
 - (C) Point to Back
 - (D) Back to Back
11. Feeding material to comber is
- (A) Wider Lap
 - (B) Thick Sliver
 - (C) Thin Sliver
 - (D) Narrow Lap
12. Index wheel of comber is graduated from
- (A) 0 – 40
 - (B) 0 – 50
 - (C) 0 – 60
 - (D) 0 – 100

Space For Rough Work

13. Maximum delivery speed of the present day draw frame is
- (A) 200 mts/ min
 - (B) 500 mts/min
 - (C) 1000 mts/min
 - (D) 1500 mts/min
14. The coil angle preferred for trouble free unwinding is
- (A) $81^\circ - 68^\circ$
 - (B) $30^\circ - 20^\circ$
 - (C) $40^\circ - 60^\circ$
 - (D) $20^\circ - 10^\circ$
15. Number of projectiles on Sulzer projectile looms depends on
- (A) Weight of projectile
 - (B) Width of loom
 - (C) Speed of loom
 - (D) Picking force
16. Catalyst used in the production process of Nylon 6 is
- (A) Magnesium Acetate
 - (B) Cobalt Acetate
 - (C) Acetic Acid
 - (D) Water
17. Nylon 6 and Nylon 66 filaments can be distinguished by
- (A) Melting point test
 - (B) Bursting test
 - (C) Optical microscopy test
 - (D) Density measurement
18. Maximum penalty points allotted in 4 point fabric inspection system is
- (A) 6
 - (B) 4
 - (C) 8
 - (D) 10

Space For Rough Work

19. Number of spindles in the longest ring frame is
- (A) 1008
 - (B) 1200
 - (C) 1400
 - (D) 1408
20. Technology used for producing sms fabric is
- (A) Spunlace
 - (B) Spunlace and melt blown
 - (C) Needle punch
 - (D) Spun bond and melt blown
21. Jigger cannot be used for
- (A) Printing
 - (B) Dyeing
 - (C) Washing
 - (D) Scouring
22. In the context of effluent discharge, BOD means
- (A) Bio Oxidative Degradation
 - (B) Bio Oxygen Distress
 - (C) Biological Oxygen Demand
 - (D) Bacteria Observed on Disc
23. Dyed wool fabric standards are used for the evaluation of
- (A) Wash fastness
 - (B) Perspiration fastness
 - (C) Sublimation fastness
 - (D) Light fastness
24. The property that Kawabata Evaluation System (KES) does not measure is
- (A) Shear rigidity
 - (B) Bending rigidity
 - (C) Compressional resilience
 - (D) Tensile strength

Space For Rough Work

25. Which of the following is the finest yarn ?
- (A) 10^SNe
 - (B) 10Tex
 - (C) 100^SNe
 - (D) 100Tex
26. Opening roller speed in rotor spinning machine is
- (A) 20,000 rpm
 - (B) 10,000 rpm
 - (C) 25,000 rpm
 - (D) 30,000 rpm
27. Non-Separable nature of Twisting and Winding is found in
- (A) Speed frame
 - (B) Rotor frame
 - (C) Ring frame
 - (D) Airjet machine
28. Cylinder speed of a comber is expressed in
- (A) mts/min
 - (B) yards/min
 - (C) RPM
 - (D) NPM
29. If the count of roving is 1.8 Ne, then its value in Tex is
- (A) 300 Tex
 - (B) 328 Tex
 - (C) 338 Tex
 - (D) 348 Tex
30. Normal lift of Ring frame is
- (A) 300 mm
 - (B) 175 mm
 - (C) 250 mm
 - (D) 275 mm

Space For Rough Work

31. In melt spinning line, the melting of solid polymer and its homogenization takes place in
- (A) Manifold
 - (B) Extruder
 - (C) Metering pump
 - (D) Quench duct
32. Which of the following is named as Aerodynamic beater ?
- (A) Disc beater
 - (B) Two bladed beater
 - (C) Mono cylinder
 - (D) Kirschner beater
33. Common blend of polyester and cotton is in the ratio of
- (A) 50 : 50
 - (B) 67 : 33
 - (C) 65 : 35
 - (D) 58 : 42
34. Aspiratory system is present in
- (A) Card
 - (B) Draw frame
 - (C) Speed frame
 - (D) Comber
35. Gas singeing machine is operated at a speed of
- (A) 50 – 70 m/min
 - (B) 125 – 200 m/min
 - (C) 10 – 40 m/min
 - (D) 80 – 120 m/min
36. Nylon is drawing
- (A) At T_g Temp
 - (B) At Softening Temp
 - (C) At Room Temp
 - (D) At 100% RH Condition

Space For Rough Work

37. The denier of TOW used for producing polyester staple fibres, before drawing is about

- (A) 3000
- (B) 30000
- (C) 50000
- (D) 10000

38. Roller and cleaner card is used for carding of

- (A) Cotton
- (B) Wool fibres
- (C) Cotton waste
- (D) Man made fibres

39. Sizing gives to the yarn

- (A) Higher Breaking Strength
- (B) Increase lustre
- (C) Increased moisture absorption
- (D) Better uniformity

40. Dyeing of polyester is carried out

- (A) Aid dyes
- (B) Direct dyes
- (C) Vat dyes
- (D) Disperse dyes

41. Lyocell is a

- (A) Polyamide fibre
- (B) Protein fibre
- (C) Cellulosic fibre
- (D) Polyester fibre

42. The purpose of using auto leveller is to improve

- (A) yarn evenness
- (B) fibre orientation in yarn
- (C) yarn count cv%
- (D) yarn strength

Space For Rough Work

43. A series of stitches used to join two or more pieces of fabric

- (A) Quilting
- (B) Seam
- (C) Stitches
- (D) Interlocking

44. Among the following which software assists for pattern development and marker making ?

- (A) CAD
- (B) CIF
- (C) CMT
- (D) CIM

45. Which of the following shuttle less weaving system can offer maximum width ?

- (A) Air Jet
- (B) Projectile loom
- (C) Water Jet
- (D) Rapier loom

46. A enzyme used for Bio-polishing of cotton is

- (A) Pectinase
- (B) Cellulase
- (C) Lipase
- (D) Amylase

Space For Rough Work

47. In scutcher the calender-roller pressure for viscose as compared to cotton fibres is

- (A) Lower
- (B) Higher
- (C) Same
- (D) Moderate

48. Rate of ring rail traverse in unconventional ring frame is

- (A) 1 : 2
- (B) 2 : 1
- (C) 1 : 3
- (D) 3 : 1

49. Spindle capacity in ring frame is multiples of

- (A) 2
- (B) 4
- (C) 5
- (D) 6

50. Stone wash finish is more commonly given to

- (A) Denim
- (B) Poplin
- (C) Cambric
- (D) Shirtings

Space For Rough Work

PART – II

(Each question carries two marks)

(25 × 2 = 50)

51. In a cotton comber, noil extraction increases
- (A) with decrease in detachment setting.
 - (B) with increase in pre-combing draft.
 - (C) with an increase in short fibres.
 - (D) If majority of hooks are presented in leading direction.
52. The blending technique that gives most homogeneous mixing of fibre is
- (A) Lap blending
 - (B) Sliver blending
 - (C) Rover blending
 - (D) Tuft blending
53. On absorption of moisture, the thermal insulation of cotton fabric will
- (A) remain same
 - (B) decrease
 - (C) increase
 - (D) first increase & then decreases
54. In $2\frac{1}{2}$ crossing winding drum the no. of crossing are
- (A) 6
 - (B) 5
 - (C) 10
 - (D) 8
55. The maximum rotor speed of a modern rotor frame is
- (A) 50,000 rpm
 - (B) 25,000 rpm
 - (C) 1 lakh rpm
 - (D) 10,000 rpm
56. The most preferred for processing man made fibres is
- (A) Shirley opener
 - (B) Krishner beater
 - (C) Creighton beater
 - (D) Three bladed beater

Space For Rough Work

57. The maximum stretch allowed for cotton yarn in sizing is
- (A) 10%
 - (B) 8%
 - (C) less than 2%
 - (D) 7%
58. Continuous scouring can be carried out in
- (A) Winch
 - (B) Jigger
 - (C) Kier
 - (D) J-box
59. H_2O_2 is called universal bleaching agent because
- (A) it is cheap
 - (B) used for bleaching all textile materials.
 - (C) process is quick.
 - (D) more stable in all conditions.
60. De-convolution count is measured to assess the efficiency of
- (A) Bleaching
 - (B) Singeing
 - (C) Desizing
 - (D) Mercerisation
61. The air pressure required in the nozzle of Air Jet loom is
- (A) 4 – 5 bar
 - (B) 10 bar
 - (C) 1 bar
 - (D) 9 bar
62. Marker efficiency indicates in garment
- (A) Fabric utilization percentage
 - (B) Product efficiency
 - (C) Pattern alteration
 - (D) Cutting efficiency
63. Water Jet looms are suitable to weave
- (A) Polyester fabric
 - (B) Silk fabrics
 - (C) Cotton fabrics
 - (D) Viscose fabrics

Space For Rough Work

64. Length of 2 kg of 180 Denier polyester in yarn is
- (A) 100 km
 - (B) 90 km
 - (C) 360 km
 - (D) 180 km
65. The RKM of a yarn is equal to
- (A) g/tex
 - (B) g/den
 - (C) Breaking length in km
 - (D) CSP
66. The fibre parameter that cannot be obtained from bear sorter diagram is
- (A) Mean length
 - (B) Effective length
 - (C) Span length
 - (D) Modal length
67. The drape of a fabric is influenced by the most by its
- (A) Bending rigidity
 - (B) Tensile strength
 - (C) Elongation at break
 - (D) Bursting strength
68. Uster classmate is for classifying
- (A) Yarn faults
 - (B) Yarn imperfections
 - (C) Yarn irregularities
 - (D) Yarn hairyness
69. The weft density at selvedge is doubled in the case of
- (A) Tuck in selvedge
 - (B) Leno selvedge
 - (C) Melt selvedges
 - (D) Conventional selvedges

Space For Rough Work

70. The bending length of a fabric is 55 cm. The length of overhanging strip of the fabric specimen when the tip of it, viewed in the mirror, cuts both index lines of fabric bending length tester is
- (A) 10 cm
 - (B) 5 cm
 - (C) 2.5 cm
 - (D) 7.5 cm
71. The fibre that contains Nitrogen and Sulphur is
- (A) Polyester
 - (B) Tenacity
 - (C) Tension modulus
 - (D) Elongation at break
72. The DP of viscose fibre is approximately
- (A) 25000
 - (B) 2500
 - (C) 25
 - (D) 250
73. In the case of cotton AFIS can be used to measure
- (A) Convolutions/unit length
 - (B) Maturity
 - (C) Strength
 - (D) Elongation
74. In Bombyx mori silk 80 – 85% of fibroin is composed of the following amino acids :
- (A) Glycine, Trysoine & Asparitic acid
 - (B) Serine, Tyrosine & Asparitic acid
 - (C) Glycine, Alamine & Serine
 - (D) Tyrosine, Asparitic acid & Serine
75. Which one of the following is most resistant to attack by micro organisms ?
- (A) Cotton
 - (B) Acrylic
 - (C) Wool
 - (D) Jute

*Space For Rough Work

Space For Rough Work

