POST GRADUATE COMMON ENTRANCE TEST-2018

DATE and TIME	COURSE	SUBJECT
14-07-2018 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.					QUESTION BOOKLET DETAILS	
					VERSION CODE	SERIAL NUMBER
					A	110033

DOs :

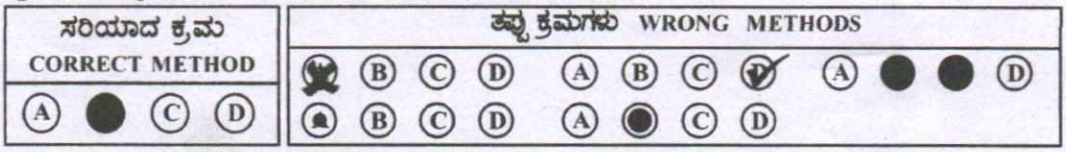
1. Candidate must verify that the PGCET number & Name printed on the OMR Answer Sheet is tallying with the PGCET number and Name printed on the Admission Ticket. Discrepancy if any, report to invigilator.
2. This question booklet is issued to you by the invigilator after the **2nd bell i.e., after 2.25 p.m.**
3. The Version Code of this Question Booklet should be entered on the OMR Answer Sheet and the respective circle should also be shaded completely.
4. The Version Code and Serial Number of this question booklet should be entered on the Nominal Roll without any mistakes.
5. 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 present on the right hand side 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 on the right hand side 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.**



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)

TX-A

TEXTILE TECHNOLOGY

PART – I

(Each question carries one mark.) **(50 × 1 = 50)**

1. The density of polyester fibre is

   (A) More than that of cotton

   (B) More than that of nylon but less than of cotton

   (C) Same as that of Nylon

   (D) More than that polypropylene but less that of nylon

2. The process that is used to develop its original shade in vat dyed goods is called

   (A) Oxidation

   (B) Reduction

   (C) Soaping

   (D) Mercerisation

3. Nomex : 1961 :: Kelvar : _____

   (A) 1972

   (B) 1952

   (C) 1984

   (D) 1991

4. Among these fibres which fibre is floating in water ?

   (A) N_6

   (B) PP

   (C) PET

   (D) Acrylic

5. Barkolishing is a treatment associated with

   (A) Ring

   (B) Travellers

   (C) Flyer

   (D) Cots

Space For Rough Work

6. One Nanometer is equal to

(A) 10^{-9} cm

(B) 10^{-7} cm

(C) 10^{-6} mm

(D) 10^{-6} cm

7. The carding action is between

(A) Cylinder of doffer

(B) Doffer to doffer comb

(C) Cylinder to Licker-in

(D) Cylinder to flats

8. Which fibre has the highest tensile strength ?

(A) Cotton

(B) Viscose

(C) Wool

(D) Ramie

9. The term chase length is associated with

(A) Random winding

(B) Beam warping

(C) Precision winding

(D) Pirn winding

10. The card reduces the short fibre % by

(A) 1 – 2

(B) 4 – 5

(C) 6 – 10

(D) Zero

11. Moisture regain % of cotton which has 7% moisture content will be approximately

(A) 6.5

(B) 7

(C) 7.5

(D) 9

Space For Rough Work

12. The main purpose of mixing a large number of bales is

(A) Produce a stronger yarn

(B) Get consistent yarn quality

(C) Reduce waste

(D) Improve cleaning efficiency

13. Unit of specific work of rupture is

(A) CN

(B) CN/Tex

(C) CN.Tex

(D) CN.m

14. The active species in H_2O_2 bleaching process is

(A) Cl^-

(B) HO_2^+

(C) OCl^-

(D) HO_2^-

15. Poly propylene is generally dyed with

(A) Acid dyes

(B) Disperse dyes

(C) Mass coloured

(D) Dyed with pigment colours

16. Fabric cover on a loom is improved by

(A) Raising the back rest

(B) Having early shedding

(C) Having late picking

(D) None of the above

17. The degree of swelling of cotton fibre is maximum in

(A) NaOH

(B) KOH

(C) LiOH

(D) H_2O_2

Space For Rough Work

18. Which of the following is having highest twist insertion rate ?

(A) Ring

(B) Rotor

(C) Air-jet

(D) Friction

19. The dye bath of solubilized vat dye has

(A) Alkali pH

(B) Neutral pH

(C) Alkali and Reducing agent

(D) Reducing agent

20. Loose reed meachanism is not suitable for _____ fabric.

(A) Heavy

(B) Medium

(C) Light

(D) None

21. The main characteristics features of honey comb weave is

(A) Raised and sunk

(B) Luster

(C) Rough

(D) Smooth

22. The drape co-efficient of glass plate is

(A) less than 1

(B) more than 1

(C) 1

(D) 3

23. Reactive dyes are held to cotton by

(A) Covalent bond

(B) Ionic bond

(C) Electro Static bond

(D) None of these

Space For Rough Work

24. Dyeing of polyester is carried out by using

(A) Acid dyes

(B) Direct dyes

(C) Disperse dye

(D) Vat dye

25. Fabric production rate is maximum in case of

(A) Woven fabric

(B) Warp knitted fabric

(C) Needle punched fabric

(D) Thermal bonded non-woven fabric

26. Resist salt :

(A) An exhausting agent

(B) A reducing agent

(C) A mild oxidizing agent

(D) A levelling agent

27. Projectile loom generally produces

(A) Chain stitch selvedges

(B) Fused selvedges

(C) Tuck in selvedges

(D) Leno selvedges

28. PAN fibres can't be dyed easily with

(A) Direct dyes

(B) Acid dyes

(C) Vat dyes

(D) Reactive dyes

29. Discharge printed cotton fabrics are streamed in

(A) Moist steam

(B) Dry steam

(C) Steamed under pressure

(D) Steamed in high temperature steamer

Space For Rough Work

30. Parameter which can't be measured by FAST but can be measured by KAWABATA is

(A) Tensile energy

(B) Shear energy

(C) Tensile recovery

(D) Bending Rigidity

31. If the friction between the yarn is increased (Keeping other parameter constant) the tearing strength of fabric

(A) increased

(B) decreases

(C) remains same

(D) first increases and then decreases

32. Speed of the modern comber is around

(A) 100 nips/min

(B) 200 nips/min

(C) 400 nips/min

(D) 1000 nips/min

33. In Jacquard, if cylinder is placed over the front or back of loom, then it is called

(A) Straight tie

(B) Cross lie

(C) Combined tie

(D) Repeated tie

34. In projectile loom the torsion rod twisted to the angle of

(A) $15^{o} - 30^{o}$

(B) $2^{o} - 8^{o}$

(C) $60^{o} - 70^{o}$

(D) $10^{o} - 12^{o}$

Space For Rough Work

35. Number of picks inserted in one revolution of bottom shaft on plain loom :

(A) 3

(B) 4

(C) 1

(D) 2

36. Water jet looms are suitable for

(A) Filament

(B) Cotton

(C) Viscose

(D) Jute

37. Chitin is used in

(A) Geo Textile

(B) Medical Textile

(C) Safety Textile

(D) Industrial Textiles

38. Which of the following fibre is high abrasion resistance ?

(A) Polyester

(B) Nylon

(C) Polyethylene

(D) Wool

39. Universal bleaching agent

(A) Chlorine

(B) Hydrogen Peroxide

(C) Sodium Chlorite

(D) Sodium Bromite

40. Which of the following stitch types consumes maximum thread ?

(A) Lock stitch

(B) Flat stitch

(C) Chain stitch

(D) Over edge chain stiches

Space For Rough Work

41. If "P" is the loom speed, then energy required for picking is proportional to

(A) P

(B) P^2

(C) P^3

(D) 1/P

42. If "d" is the diameter of a fibre, its flexural rigidity is proportional to

(A) d

(B) d^2

(C) d^3

(D) d^4

43. Air-craft-textiles should process

(A) Low density

(B) High density

(C) High moisture absorption

(D) Low temperature resistance

44. Hank of lap in Ne is approximately

(A) 0.00014

(B) 0.014

(C) 0.0014

(D) 1.4

45. The chemical processing which is done at negative temperature is

(A) Mercerisation using NaOH

(B) Mercerisation using KOH

(C) Mercerisation using liquid ammonia

(D) Mercerisation using lithium hydroxide

Space For Rough Work

46. The maximum number of points which are allowed in the

4 point system/100 sq. yard is

(A) 4

(B) 6

(C) 10

(D) 20

47. Murata Jet spinner has been commercially successful for yarns from

(A) Cotton

(B) Polyester & its blends

(C) Viscose cotton blends

(D) Wool

48. A 3 crossing drum means the number of turns/double traverse is

(A) 6

(B) 3

(C) 9

(D) 12

49. Number of fibres in the cross-section of yarn of 9 denier with 0.01 Tex fibre is

(A) 100

(B) 50

(C) 200

(D) 20

50. Enzyme used for Bio-polishing of cotton fabric

(A) Cellulase

(B) Lipase

(C) Amylase

(D) Pectinase

Space For Rough Work

PART – II

(Each question carries two marks.) **(25 × 2 = 50)**

51. Following instrument measures the K/S value of a dyed fabric :

(A) Potentiometer

(B) Reflectance spectrophotometer

(C) Atomic mass spectrophotometer

(D) Infrared spectrophotometer

52. Yarn strength expressed as RKM in equivalent to

(A) Grams / denier

(B) CSP

(C) Breaking load in Grams

(D) Grams / Tex

53. Decatizing process is used for finishing of

(A) cotton

(B) polyester

(C) wool

(D) jute

54. Tenacity in gms/denier of a yarn of 9 tex with 81 gms of breaking load is

(A) 9

(B) 1

(C) 81

(D) 0.9

55. Which of the following fibre swell in acetone but does not dissolve in it ?

(A) Polyester

(B) Cotton

(C) Acetate

(D) Triacetate

56. If the two yarns of 20^s Ne and 30^s Ne are doubled the resultant count is

(A) 10

(B) 20

(C) 12

(D) 40

Space For Rough Work

57. Weight of 10 km of doubled yarn with single yarn linear density of 0.5 Tex is

(A) 10 gm

(B) 0.5 gm

(C) 15 gm

(D) 20 gm

58. Cohension test is used for testing of

(A) Polyester yarns

(B) Nylon Filaments

(C) Woolen yarns

(D) Raw silk yarns

59. Nylon Fibre can be drawn

(A) at glass temperature

(B) at room temperature

(C) as softening temperature

(D) at 100% RH condition

60. Maximum number of functional groups required for monomer to undergo condensation polymerization is

(A) 1

(B) 2

(C) 81

(D) 0.9

61. 500 mts of 5 Tex yarn weight _____ grams.

(A) 10

(B) 20

(C) 2.5

(D) 15

62. 40^S Reed in stock port system for plain weave means there will be _____ ends/inch.

(A) 20

(B) 40

(C) 60

(D) 80

63. Beats per inch of three bladed beater with 900 RPM with front roller delivery of 270"/min is

(A) 100

(B) 10

(C) 5

(D) 50

Space For Rough Work

64. Limiting oxygen index is determined to test the efficiency of

(A) wash and wear finish

(B) water proofing

(C) flame retardant finish

(D) mildew proofing

65. Sectional warping is generally preferred

(A) mono coloured wrap

(B) colour and weave effect

(C) checks pattern

(D) satin effect

66. In production of N6, the extent of reaction = 0.9, then degree of polymerization

(A) 1010

(B) 1000

(C) 100

(D) 10

67. In dyeing of cotton, 40% salt has to be used 1 : 40 MLR. How much of salt is required in gpl ?

(A) 6

(B) 10

(C) 8

(D) 7

68. Illusion of vertical lines will gave _____ body.

(A) width

(B) diagonal

(C) height

(D) short

69. Moisture regain of _____Fibre is approximately 10 times more than that of PET.

(A) Cotton

(B) Nylon

(C) Silk

(D) Polyesters

Space For Rough Work

70. Extent of reaction in case of bi-bi functional monomer is

(A) 80%

(B) 90%

(C) 100%

(D) 70%

71. Length of 2 kg of 180 denier polyester yarn is

(A) 90 km

(B) 100 km

(C) 180 km

(D) 18.9 km

72. Number of projectiles on Sulzer projectile looms depends on

(A) weight of projectile

(B) width of loom

(C) speed of loom

(D) picking force

73. Generally thin places in yarn are removed in winding by

(A) Tensioners

(B) Yarn clearers

(C) Speed Feelers

(D) Balloon breakers

74. _____ is a popular software used in garment designing

(A) GERBER

(B) LENOTEX

(C) INDWEAVE

(D) SOFT APPAREL

75. Following chemical is used as an ant creasing agent :

(A) NaOH

(B) Na_2SiO_3

(C) DMDHEU

(D) CH_3COOH

Space For Rough Work

Space For Rough Work