# $I\ tcf\ wcvg'Cr\ vkwvf\ g'Vguv'lp'Gpi\ lpggt\ lpi$

Pawalapu'< 1.Options shown in gre	een color and with	✓ icon are correct.	
2.Options shown in rec	d color and with 🍍	icon are incorrect.	
S wguwlqp'Rergt'Peo g< Pwo dgt'qh'S wguwlqpu≤ Vqwen'Oet m≤	TF: TEX' 65 100.0	TILE ENGINEERING AND	FIBRE SCIENCE 1st Feb Shift2
		General Ap	otitude
Number of Questions Section Marks:	:	10 15.0	
S wgurkqp'P wo dgt '<3''S wgu			
Choose the appropriate sentence:	word/phrase, out of	f the four options given	below, to complete the following
Apparent lifelessness _		dormant life.	
(A) harbours	(B) leads to	(C) supports	(D) affects
<b>Qr vkqpu'</b> 1. ✓ A 2. ※ B 3. ※ C			
4. <b>*</b> D			
S wguwkqp'P wo dgt '<4"S wgu Fill in the blank with th		rase.	
That boy from the town	ı was a	in the sleepy village	t.
(A) dog out of herd (C) fish out of water		<ul><li>(B) sheep from the</li><li>(D) bird from the</li></ul>	
Qr vkqpu'<			
1. * A 2. * B			
2. <b>▼</b> B			
4. * D			

Cho	ose the statement v	vhere underline	d word is used corre	ctly.	
(A) (B) (C) (D)	When the thief ke Matters that are d	eeps eluding the lifficult to unde	ent authors, he is being of police, he is being of rstand, identify or re- etter way to express t	<u>elusive.</u> member are <u>allusive</u> .	
Qr vkq	pu'<				
1. 🗱	A				
2. 🖋	В				
з. 🗱	С				
4. 🗱	D				
S wguw	kqp'P wo dgt '<6''S wgu	mkqp'V{rg'≺OES			
Tan	ya is older than Eri	ic.			
	f is older than Tan				
Eric	is older than Cliff				
	If the first two stat	tements are true	, then the third states	ment is:	
(B) (C)	True False Uncertain Data insufficient				
Qr vkq					
1. **					
2. 🖋					
3. 🕷	_				
4. 🗱	D				
S wguw	kqp'P wo dgt'∨7''S wgu	nkqp'V{rg'<0ES			
befo				n playing every other to I have to be held to co	The state of the s
(A)	20	(B) 10	(C) 8	(D) 5	
Qr vkq	pu'<				
1. 🗱	A				
2. 🖋	В				
з. 🗱	С				
4. 🗱	D				

Select the appropriate option in place of underlined part of the sentence.

Increased productivity necessary reflects greater efforts made by the employees.

- (A) Increase in productivity necessary
- (B) Increase productivity is necessary
- (C) Increase in productivity necessarily
- (D) No improvement required

## Qr vkqpu'⊱

- 1. 🗱 A
- 2. 🏶 B
- 3. **√** C
- 4. × D

#### S wgunlap'P wo dgt '<9"S wgunlap'V{rg'<0ES

Given below are two statements followed by two conclusions. Assuming these statements to be true, decide which one logically follows.

#### Statements:

- No manager is a leader.
- II. All leaders are executives.

#### Conclusions:

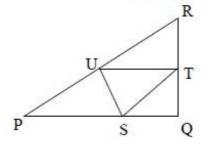
- No manager is an executive.
- No executive is a manager.
- (A) Only conclusion I follows.
- (B) Only conclusion II follows.
- (C) Neither conclusion I nor II follows.
- (D) Both conclusions I and II follow.

#### Qr vkqpu'<

- 1. 38 A
- 2. X B
- 3. 🗸 C
- 4. \* D

#### S wgundap'P wo dgt '\!' "S wgundap'V{ r g'\!P CV

In the given figure angle Q is a right angle, PS:QS = 3:1, RT:QT = 5:2 and PU:UR = 1:1. If area of triangle QTS is  $20 \text{ cm}^2$ , then the area of triangle PQR in  $cm^2$  is \_\_\_\_\_.



## $S \ wgwMqp'P \ wo \ dgt \ '<'; \ ''S \ wgwMqp'V \{ \ r \ g' <\!' O \ E S$

Right triangle PQR is to be constructed in the xy - plane so that the right angle is at P and line PR is parallel to the x-axis. The x and y coordinates of P, Q, and R are to be integers that satisfy the inequalities:  $-4 \le x \le 5$  and  $6 \le y \le 16$ . How many different triangles could be constructed with these properties?

- (A) 110
- (B) 1,100
- (C) 9,900
- (D) 10,000

## Qr vkqpu'\

- 1. 🏁 A
- 2. 🗱 B
- 3. **√** C
- 4. \* D

## S wgurkqp'P wo dgt '<32''S wgurkqp'V{ rg'<0 ES

A coin is tossed thrice. Let X be the event that head occurs in each of the first two tosses. Let Y be the event that a tail occurs on the third toss. Let Z be the event that two tails occur in three tosses. Based on the above information, which one of the following statements is TRUE?

- (A) X and Y are not independent
- (B) Y and Z are dependent

(C) Y and Z are independent

(D) X and Z are independent

#### Or vkqpu'<

- 1. \* A
- 2. 🖋 B
- 3. × C
- 4. \* D

Textile Engineering and Fibre Science

Number of Questions: 55
Section Marks: 85.0

#### S wgushqp'P wo dgt '<33''S wgushqp'V{rg'<PCV

If 3 and 4 are two eigenvalues of  $A = \begin{bmatrix} 3 & a & b \\ c & 2 & d \\ e & f & 4 \end{bmatrix}$  for some real numbers a, b, c, d, e, and f, then

the third eigen value of A is

## S wgurkqp'P wo dgt '<34"S wgurkqp'V{ rg'<PCV

If a continuous random variable X has probability density function

$$f(x) = \begin{cases} ax^2, & 0 \le x \le 1 \\ 0, & otherwise \end{cases}$$

then the value of a is \_\_\_\_\_

Eqttgev'Cpuy gt'

S wgunlqp'P wo dgt' < 35''S wgunlqp'V $\{rg' < PCV\}$ 

The value of  $\lim_{x \to 0} \frac{\sin x}{x}$  is \_\_\_\_\_

Eqttgev'Cpuy gt'<

S wgurlop'P wo dgt '<36"S wgurlop'V{rg'<PCV

If  $A = \begin{bmatrix} 3 & 0 & 0 \\ 0 & 4 & 0 \\ 0 & 0 & \frac{1}{12} \end{bmatrix}$ , then determinant of  $A^{-1}$  is \_\_\_\_\_\_

Eqttgev'Cpuy gt'

S wgurlop'P wo dgt '<37"S wgurlop'V{ rg'<PCV

The number of linearly independent eigen vectors of the matrix  $\begin{bmatrix} 1 & 0 \\ 3 & 4 \end{bmatrix}$  is \_\_\_\_\_\_

S wg	uwkqp'P wodgt'<38''S wg	undqp'V{rg'∀OES		
,	The gum in the raw	silk filament is		
(	(A) Wax	(B) Lignin	(C) Sericin	(D) Fibroin
1. 3 2. 3	kqpu'< A B C D			
S wg	uwkqp'Pwodgt'<39''Swg	unkqp'V{rg'∀OES		
(	A) Acetone B) <i>N,N'</i> Dimethyl fo C) Formic acid	ormamide	he suitable solvent for do	pe preparation is
(	D) Aqueous sodium	thiocyanate (55 wt%	b)	
1. <sup>3</sup> 2. <sup>4</sup> 3. <sup>3</sup>	kqpu'⊱ ▲ A ▲ B ▲ C ▲ D			
S wg	uwkqp'P wo dgt'<3:''S wg	nokqp'V{rg'∜OES		
2	Adipic acid is a mon	omer for the product	ion of	
(	A) Poly(ethylene te B) Nylon 66 C) Nylon 64 D) Nylon 610	rephthalate)		
1. 3 2. 3 3.	kqpu'≮ ♣ A ፆ B ♣ C ♣ D			
S w	uwkqp'Pwodgt'<3;''Swg	unkap'V{rg'\'OES		
			polymer and its homoger	nization takes place in
(	A) Manifold B) Extruder C) Metering pump D) Quench duct			
1. 3 2. 4	kqpu'< ▲ A ✔ B <b>&amp;</b> C			

4. <b>*</b> D			
S wguMqp'P wo dgt '<42''S wgu	dγdp'V{rg'∀OES		
The blending technique	e that gives the most hor	nogeneous mixing of fib	res is
(A) Lap blending	(B) Tuft blending	(C) Sliver blending	(D) Roving blending
Qr vkqpu'<			
1. * A			
2. <b>✓</b> B			
3. <b>*</b> C			
4. * D			
S wguMqp'P wo dgt '<43''S wgu	vkqp'V{rg' <oes< td=""><td></td><td></td></oes<>		
In a cotton comber, no	oil extraction increases		
<ul> <li>(A) With a decrease in</li> <li>(B) With an increase in</li> <li>(C) If majority of hoof</li> <li>(D) With an increase in</li> </ul>	n pre-combing draft ks are presented in leadi	ng direction	
Qr vkqpu'<			
1. 🗱 A			
2. <b>%</b> B			
3. <b>*</b> C			
4. <b>✔</b> D			
S wguwlqp'P wo dgt'<44''S wgur	dqp'V{rg' <oes< td=""><td></td><td></td></oes<>		
The bottom roller sur	face used for driving apı	rons in ringframe drafting	system is
(A) Knurled (B) Axially fluted (C) Spirally fluted (D) Smooth			
Qr vkqpu'\			
1. <b>✓</b> A			
2. <b>%</b> B			
3. <b>*</b> C			
4. * D			
S wgurkqp'P wo dgt '<45''S wgu	dγqp'V{rg'∀OES		
If the numerical value same, this value to the	이 맛있다면 뭐 하다 하다 하다 하를 하는 것이 되었다. 그는 사람들은 사람들이 되었다.	expressed in Tex and that	in English system is the
(A) 30	(B) 28	(C) 24	(D) 22
Qr vkqpu'\			
1. 🗱 A			
2. 🗱 B			
3. <b>✓</b> C			

4. * D	
S wgwlqp'P wo dgt'46''S wgwlqp'V{rg'40ES	
Patterning is most likely to occur in	
(A) Precision winding (C) Step-precision winding	(B) Random winding (D) Pirn winding
Qr vkqpu'<	
1. * A	
2. <b>✓</b> B	
3. <b>*</b> C	
4. * D	
S wgwlqp'P wo dgt '<47''S wgwlqp'V{rg' <oes< td=""><td></td></oes<>	
In cotton yarn sizing, the starch primari	ily acts as
(A) Binding agent (B) Lubricating	g agent (C) Antistatic agent (D) Antimicrobial agent
Qr vlqpu'\	
1. ✔ A	
2. 🗱 B	
3. <b>*</b> C	
4. * D	
S wgurkqp'P wo dgt '<48''S wgurkqp'V{rg' <oes< td=""><td></td></oes<>	
Purl is a	
(A) Woven structure	(B) Nonwoven structure
(C) Braided structure	(D) Knitted structure
Qr vkqpu'\	
1. * A	
2. 🗱 B	
3. <b>*</b> C	
4. <b>✔</b> D	
S wgurkqp'P wo dgt '<49''S wgurkqp'V{rg' <oes< td=""><td></td></oes<>	
The technology/ies used for producing	SMS fabric is/are
(A) Spunlace	
(B) Spunlace and Meltblown	
(C) Needlepunch (D) Spunbond and Meltblown	
Qr vkqpu'<	
1. * A	
2. <b>*</b> B	
3. <b>*</b> C	
4. <b>✓</b> D	

# S wgunlqp'P wo dgt '<4: "S wgunlqp'V{rg'<OES Jigger CANNOT be used for (A) Dyeing (B) Printing (C) Washing (D) Scouring Qr vkqpu'< 1. 🏁 A 2. 🗸 B 3. X C 4. \* D S wgurlqp'P wo dgt'<4; ''S wgurlqp'V{rg'<0 ESIn the context of effluent discharge, BOD means (A) Bio-oxidative degradation (B) Bio oxygen distress (C) Biological oxygen demand (D) Bacteria observed on disc Qr vkqpu'< 1. 🏶 A 2. X B 3. **√** C 4. \* D S wgurlqp'P wo dgt '<52''S wgurlqp'V $\{rg'<OES\}$ Milling is associated with the processing of (A) Cotton fabric (B) Silk fabric (C) Jute fabric (D) Wool fabric

## Qr vkqpu'<

1. 🏁 A

2. X B

3. X C

4. 🖋 D

## S wguskqp'P wo dgt '<53''S wguskqp'V{ r g'<0 ES

Dyed wool fabric standards are used for the evaluation of

- (A) Wash fastness
- (B) Perspiration fastness
- (C) Sublimation fastness
- (D) Light fastness

# Qr vkqpu'< 1. 🏁 A 2. X B 3. **%** C 4. 🗸 D S wgurlap'P wo dgt '<54''S wgurlap'V $\{rg'<OES\}$ The yarn tenacity (gf/tex) measured in lea form, compared to that measured in single yarn form is (A) Always lower (B) Always higher (C) Always equal (D) Higher or lower depending on yarn count Qr vkqpu'< 1. 🗸 A 2. X B 3. **%** C 4. \* D S wgurlap'P wo dgt '<55"S wgurlap'V{ r g'<0 ES The property that Kawabata Evaluation System (KES) DOES NOT measure is (A) Shear rigidity (B) Bending rigidity (C) Compressional resilience (D) Tensile strength Qr vkqpu'⊱ 1. 38 A 2. 🗱 B 3. **%** C 4. 🗸 D S wgunlqp'P wo dgt '<56''S wgunlqp'V $\{rg'<OES\}$ On absorption of moisture, the thermal insulation of cotton fabric will (A) Decrease (B) Increase (C) Remain the same (D) First increase and then decrease Qr vkqpu'\

 For meeting the criterion of number of defects in a product, the relationship between upper control limit (UCL) and upper specification limit (USL) should be

- (A) UCL < USL
- (B) UCL > USL
- (C) UCL = 2USL
- (D)  $UCL = (USL)^3$

Qr vkqpu'<

- 1. 🗸 A
- 2. X B
- 3. 🎏 C
- 4. \* D

#### S wguNqp'P wo dgt '\'58''S wguNqp'V{rg'\'PCV

The maximum value of  $f(x) = \sqrt{2}(\sin x + \cos x)$  for x in  $[0,\pi]$  is \_\_\_\_\_\_

Eqttgev'Cpuy gt'<

#### S wgurlap'P wo dgt '<59"S wgurlap'V{ r g'<0 ES

Out of the following, the exact differential equation is

(A) 
$$-ydx + xdy = 0$$
 (B)  $ydx + xdy = 0$  (C)  $ydx - xdy = 0$  (D)  $dx + xdy = 0$ 

(B) 
$$ydx + xdy = 0$$

(C) 
$$ydx - xdy = 0$$

(D) 
$$dx + xdy = 0$$

Qr vkqpu'<

- 1. 🏁 A
- 2. 🗸 B
- 3. \* C
- 4. \* D

#### S wgurkqp'P wo dgt '<5: "S wgurkqp'V{rg'<PCV

Let  $f:[1,4] \to \Re$  be a continuous function such that f(1) = 0.32, f(2) = 0.125, f(3) = 0.025and f(4) = 0.05. The value of the integral  $\int_{1}^{4} f(x)dx$ , accurate up to three decimal places, obtained by Trapezoidal rule with n=3 is

Question Number: 39 Question Type: MCQ

The normal vector to the surface  $z = \sqrt{x^2 + y^2}$  at (1,1,1) is

(A) 
$$\hat{i} + \hat{j} + \hat{k}$$

(B) 
$$\hat{i} - \hat{j} + \hat{k}$$

(C) 
$$-\hat{i} - \hat{j} + \hat{k}$$

(A) 
$$\hat{i} + \hat{j} + \hat{k}$$
 (B)  $\hat{i} - \hat{j} + \hat{k}$  (C)  $-\hat{i} - \hat{j} + \hat{k}$  (D)  $-\hat{i} + \hat{j} + \hat{k}$ 

**Options:** 

Question Number: 40 Question Type: MCQ

Consider the analytical techniques in the Column I and the properties in Column II. Choose the correct alternative from amongst A, B, C, and D

Column I

P FTIR

Q Differential scanning calorimetry

R Density

S Birefringence

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

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

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

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

**Options:** 

2. X B

3. X C

4. \* D

Column II

1 Orientation

2 Functional groups

3 Crystallinity

4 Crystallization temperature

Question Number: 41 Question Type: MCQ

If Tg, Tm, and Tc represent the glass transition, melting and crystallization temperature, respectively, the correct relationship is

(A) 
$$T_g < T_c < T_m$$

(B) 
$$T_{g} < T_{m} < T_{c}$$

(C) 
$$T_c \le T_g \le T_m$$

(D) 
$$T_m < T_g < T_c$$

**Options:** 

## **Question Number: 42 Question Type: MCQ**

The correct sequence of unit operations employed in production of viscose rayon is

- (A) Ageing Steeping Xanthation Ripening
- (B) Ageing Steeping Ripening Xanthation
- (C) Steeping Ageing Ripening Xanthation
- (D) Steeping Ageing Xanthation Ripening

#### **Options:**

- 1. 🏁 A
- 2. 🏶 B
- 3. 🏶 C
- 4. 🖋 D

## **Question Number: 43 Question Type: MCQ**

Consider the following assertion [a] and reason [r] and choose the correct alternative from amongst A, B, C, and D.

- [a] After polymerization of caprolactum, thorough washing of polymer with water is necessary to remove unreacted monomer and its oligomers.
- [r] Otherwise, hydrolytic degradation of polymer would occur during melt spinning.
- (A) [a] is right and [r] is wrong
- (B) [a] is right and [r] is right
- (C) [a] is wrong and [r] is wrong
- (D) [a] is wrong and [r] is right

#### **Options:**

- 1. 🗸 A
- 2. 🗱 B
- 3. X C
- 4. \* D

#### Question Number: 44 Question Type: MCQ

Consider the fibres in Column I and the applications in Column II. Choose the correct alternative from amongst A, B, C, and D

#### Column I

- P Acrylic
- Q Jute
- R Nylon
- S Polypropylene
- (A) P-1, Q-4, R-2, S-3
- (B) P-2, Q-4, R-3, S-1
- (C) P-3, Q-4, R-2, S-1
- (D) P-3, Q-4, R-1, S-2

#### **Options:**

1. 🗱 A

#### Column II

- 1 Chemical filtration
- 2 Tire cord
- 3 Precursor for carbon fibre
- 4 Biodegradable sacks

3. <b>√</b> C
4. * D
Question Number: 45 Question Type: PCV
Two polyester and six viscose rayon slivers of same count are blended on a drawframe. In the second passage, four slivers from first passage are further blended with two combed cotton slivers of the same count. The viscose (%) in the final sliver to the nearest integer is
Eqttgev'Cpuy gt:
Question Number : 46 Question Type : MCQ
In ring spinning, the tension in yarn is the maximum
<ul> <li>(A) Between the lappet guide and front roller</li> <li>(B) Where the balloon radius is the maximum</li> <li>(C) In winding zone</li> <li>(D) Just below the lappet guide</li> </ul>
Options:
1. <b>※</b> A
2. <b>*</b> B
3. ✔ C 4. ※ D
4. ** D
Question Number: 47 Question Type: PCV
A core spun yarn of 30 tex is to be produced with 10% core by weight. If the cotton roving count is 540 tex, the required draft on the ringframe will be
Eqttgev'Cpuy gt:
Question Number: 48 Question Type: PCV
If the spindle speed of ringframe is 15000 rpm and the traveler speed at the maximum bobbin diameter of 50 mm is 0.8% less than that of the spindle. The yarn delivery rate (m/min), to the nearest integer, will be

2. 🏶 B

Ouestion	Number:	49	Question	Type	· P(	$^{\mathbf{C}}\mathbf{V}$
Oucsuon	mumber.		Oucsuon	IVDC		$\sim$ v

A rotor of 2 inch diameter is spinning a yarn of 16<sup>5</sup> Ne. If the twist multiplier is 5 and the fibre linear density is 0.1 tex, the average fibre flow through the transport channel, to the nearest integer, will be \_\_\_\_\_

Eqttgev'Cpuy gt:

3

Question Number: 50 Question Type: PCV

The groove drum in a random winder makes five revolutions for one double traverse. If the drum and package diameters are 10 cm and 5 cm, respectively, the wind per double traverse would be

Eqttgev'Cpuy gt:

10

**Question Number: 51 Question Type: MCQ** 

A 500-end double-lift, single-cylinder jacquard has

- (A) 500 hooks and 500 needles
- (B) 500 hooks and 1000 needles
- (C) 1000 hooks and 500 needles
- (D) 1000 hooks and 1000 needles

#### **Options:**

- 1. 🏁 A
- 2. 38 B
- 3. 🗸 C
- 4. \* D

**Question Number: 52 Question Type: PCV** 

A shuttle loom is running at 240 picks per minute. The angular velocity of bottom shaft in radian per second is  $n\pi$ . The value of n is \_\_\_\_\_

Eqttgev'Cpuy gt:

4

**Question Number: 53 Question Type: PCV** 

In an air-jet loom, if the weft yarn diameter is increased by 10%	6, keeping the linear density
constant, the percent increase in the drag force would be	# 150

#### Eqttgev'Cpuy gt:

10

**Question Number: 54 Question Type: PCV** 

For a fully relaxed knitted fabric, the wale constant  $(K_w)$  and course constant  $(K_c)$  are 4.2 and 5.5, respectively. If the loop length is 0.5 cm, the loop density per cm<sup>2</sup>, to the nearest integer, would be

### Eqttgev'Cpuy gt:

92

**Question Number: 55 Question Type: MCQ** 

Consider the following assertion [a] and reason [r] and choose the correct alternative from amongst A, B, C, and D.

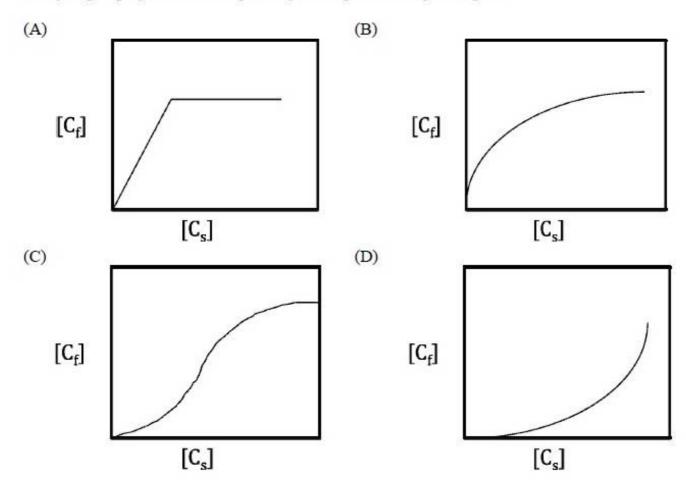
- [a] Cross-laid needlepunched nonwoven fabrics demonstrate higher tensile strength in machine direction.
- [r] In cross-laid nonwoven fabrics, the fibres are randomly oriented.
- (A) [a] is right and [r] is wrong
- (B) [a] is right and [r] is right
- (C) [a] is wrong and [r] is wrong
- (D) [a] is wrong and [r] is right

#### **Options:**

- 1. \* A
- 2. 🗱 B
- 3. 🗸 C
- 4. \* D

**Question Number: 56 Question Type: MCQ** 

If  $[C_s]$  and  $[C_f]$  represent dye concentration in the bath and in the fibre, respectively, the isotherm for dyeing of polyester with disperse dyes is represented by the figure



## **Options:**

- 1. 🖋 A
- 2. 🏶 B
- З. Ж С
- 4. 🗱 D

**Question Number: 57 Question Type: MCQ** 

A small hard particle is stuck in the doctor blade of a roller printing machine. The printing fault on the fabric, as a result of this, is represented by the figure

(A) (B) (C) (D)

#### **Options:**

- 1. 🏁 A
- 2. 🎏 B
- 3. **√** C
- 4. \* D

**Question Number: 58 Question Type: MCQ** 

Consider the following assertion [a] and reason [r] and choose the correct alternative from amongst A, B, C, and D.

- [a] Millions of shades can be produced through ink-jet printing with only four basic colours.
- [r] The colours get mixed in appropriate proportions before jetting onto the fabric.
- (A) [a] is right and [r] is wrong
- (B) [a] is right and [r] is right
- (C) [a] is wrong and [r] is wrong
- (D) [a] is wrong and [r] is right

#### **Options:**

- 1. 🗸 A
- 2. X B
- 3. \* C
- 4. \* D

**Question Number: 59 Question Type: MCQ** 

Consider the following assertion [a] and reason [r] and choose the correct alternative from amongst A, B, C, and D.

- [a] Fluorochemicals impart very high water repellency.
- [r] Fluorochemicals significantly reduce the surface energy of the treated substrate.
- (A) [a] is right and [r] is wrong
- (B) [a] is right and [r] is right
- (C) [a] is wrong and [r] is wrong
- (D) [a] is wrong and [r] is right

## **Options:**

- 1. 🏶 A
- 2. 🗸 B
- 3. **%** C
- 4. \* D

## Question Number: 60 Question Type: MCQ

Consider the following assertion [a] and reason [r] and choose the correct alternative from amongst A, B, C, and D.

- [a] In the context of foam finishing, the narrow size distribution of foam cells increases the half life of foam.
- [r] The rate of coalescing and collapsing of foam cells is low in this case.
- (A) [a] is right and [r] is wrong
- (B) [a] is right and [r] is right
- (C) [a] is wrong and [r] is wrong
- (D) [a] is wrong and [r] is right

#### **Options:**

- 1. 🗱 A
- 2. 🗸 B
- 3. \* C
- 4. \* D

#### Question Number: 61 Question Type: PCV

For a typical yarn tensile test, force (F) in Newton and elongation (e) in cm are related as under

$$F = 2 + 4e + 3e^2$$

If the yarn fails at an elongation of 3 cm, the work of rupture in N-m, accurate up to first decimal place is\_\_\_\_\_

## Eqttgev'Cpuy gt:

0.5

**Question Number: 62 Question Type: MCQ** 

Choose the INCORRECT statement from amongst the A, B, C, and D

- (A) Crease recovery is higher for thick and dense fabric
- (B) Tear strength of fabric improves with greater float length
- (C) Strength CV of yarn does not affect the weaveability
- (D) Higher drape coefficient indicates stiffer fabric

**Options:** 

- 1. 🏁 A
- 2. X B
- 3. 🗸 C
- 4. **%** D

**Question Number: 63 Question Type: MCQ** 

The unique ability of woven fabric to drape in multiple curvatures is mainly due to

- (A) High tensile modulus
- (B) Low shear rigidity
- (C) Low compressibility
- (D) High bending rigidity

**Options:** 

- 1. 🏁 A
- 2. 🗸 B
- 3. X C
- 4. \* D

Question Number: 64 Question Type: PCV

The relationship between 50% span length of fibre  $(L_1)$  and 2.5% span length of fibre  $(L_2)$  for a given cotton variety is given by

$$L_1 = \frac{L_2}{2} + 5$$

If standard deviation (SD) of  $L_2$  is 4 mm, that of the  $L_1$ , in mm, would be

Eqttgev'Cpuy gt:

**Question Number: 65 Question Type: PCV** 

The correlation coefficient (r) between two variables is 0.9. The unexplained variation (%) is