

National Testing Agency

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Textile and Fibre Engineering

Group Number :	1
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Textile and Fibre Engineering

Section Id :	89951441
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100

Number of Questions to be attempted :	100
Section Marks :	100
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	89951454
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 8995143450 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The most appropriate fibre for application in Fire protection suits is

- (A) Stimuli (Temperature) responsive fibre
- (B) Nomex Fibre
- (C) Kevlar Fibre
- (D) PE gel fibre

Options :

- 89951413755. 1
- 89951413756. 2
- 89951413757. 3
- 89951413758. 4

Question Number : 2 Question Id : 8995143451 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The fibre that belongs to second generation fibres is

- (A) PET
- (B) Nylon 6
- (C) Carbon
- (D) Cellulose Acetate

Options :

- 89951413759. 1
- 89951413760. 2
- 89951413761. 3
- 89951413762. 4

Question Number : 3 Question Id : 8995143452 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The polymer that exhibits highest chain rigidity is

(A) Kevlar

(B) PIPD

(C) Nomex

(D) PBO

Options :

89951413763. 1

89951413764. 2

89951413765. 3

89951413766. 4

Question Number : 4 Question Id : 8995143453 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In the context of Gel spinning of ultrahigh molecular weight PE, the extended chain structure is obtained

- (A) By spinning at very high concentration
- (B) By incorporation of thermal stabilizers
- (C) By optimizing the number of entanglements per chain and super drawing from the gel state
- (D) By increasing the entanglements per chain

Options :

- 89951413767. 1
- 89951413768. 2
- 89951413769. 3
- 89951413770. 4

Question Number : 5 Question Id : 8995143454 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Primary properties of ultra high molecular weight PE Gel fibres are

- (A) High strength, low modulus and high density
- (B) High strength, high modulus in combination with flame retardancy
- (C) High strength, high modulus in combination with high melting point
- (D) High strength, high modulus in combination with low density

Options :

- 89951413771. 1
- 89951413772. 2
- 89951413773. 3
- 89951413774. 4

Question Number : 6 Question Id : 8995143455 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Para phenylene diamine is a monomer for production of

- (A) Nomex
- (B) Poly benzothiazole
- (C) Poly benzoxazole
- (D) Kevlar

Options :

- 89951413775. 1
- 89951413776. 2
- 89951413777. 3
- 89951413778. 4

Question Number : 7 Question Id : 8995143456 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In lyotropic solutions (like aramids in sulphuric acid), the viscosity begins to decrease at critical concentration due to

- (A) Degradation of polymer
- (B) Easy flow of oriented domains formed
- (C) Increase in randomness of polymer chains
- (D) Increase in the molecular weight of the polymer

Options :

- 89951413779. 1
- 89951413780. 2
- 89951413781. 3
- 89951413782. 4

Question Number : 8 Question Id : 8995143457 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The INCORRECT statement with respect to production of high performance aramid fibres is

- (A) It is essential to use very high molecular weight polymer
- (B) It is produced by dry jet wet spinning
- (C) The spinning dope exhibits lyotropic behaviour
- (D) After spinning, a short heat treatment is required

Options :

- 89951413783. 1
- 89951413784. 2
- 89951413785. 3
- 89951413786. 4

Question Number : 9 Question Id : 8995143458 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In the temperature sensitive polymers(like PNIPAm) the polymer chains suddenly expand/swell

- (A) Below the transition temperature as the hydrophilic interactions dominate
- (B) Above the transition temperature as the hydrophilic interactions dominate
- (C) Below the transition temperature as the hydrophobic interactions dominate
- (D) Above the transition temperature as the hydrophobic interactions dominate

Options :

- 89951413787. 1
- 89951413788. 2
- 89951413789. 3
- 89951413790. 4

Question Number : 10 Question Id : 8995143459 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The response time of the structures made from a temperature responsive polymer will be shortest/lowest (i.e. response fast) in

- (A) Films of 10 micron thickness
- (B) Films of 50 micron thickness
- (C) Fibres of 10 micron thickness
- (D) Fibres 50 micron thickness

Options :

89951413791. 1

89951413792. 2

89951413793. 3

89951413794. 4

Question Number : 11 Question Id : 8995143460 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following **does not** lie in nanoscale size range (1-100) nm?

- (A) Virus
- (B) DNA Molecule
- (C) Hemoglobin protein molecule
- (D) Red Blood Cell

Options :

- 89951413795. 1
- 89951413796. 2
- 89951413797. 3
- 89951413798. 4

Question Number : 12 Question Id : 8995143461 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Nanoparticles have a tendency to agglomerate as they have

- (A) High surface energy
- (B) Low surface energy
- (C) Presence of impurities
- (D) High mobility

Options :

89951413799. 1

89951413800. 2

89951413801. 3

89951413802. 4

Question Number : 13 Question Id : 8995143462 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The colour of Gold nanoparticles changes with size and shape in the nano-range due to following phenomenon

- (A) Quantum Confinement
- (B) Surface Plasmon Resonance
- (C) High Surface area to volume ratio
- (D) Thermodynamic Instability

Options :

89951413803. 1

89951413804. 2

89951413805. 3

89951413806. 4

Question Number : 14 Question Id : 8995143463 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following nanoparticles is not used to impart antibacterial property to textiles?

- (A) Silver Nanoparticles
- (B) Zinc Oxide Nanoparticles
- (C) Copper Oxide Nanoparticles
- (D) Cadmium Sulfide nanoparticles

Options :

- 89951413807. 1
- 89951413808. 2
- 89951413809. 3
- 89951413810. 4

Question Number : 15 Question Id : 8995143464 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Zinc Oxide nanoparticles possess the following property

- (A) Electrical conductivity
- (B) UV Protective property
- (C) Thermal Conductivity
- (D) Delustering property

Options :

- 89951413811. 1
- 89951413812. 2
- 89951413813. 3
- 89951413814. 4

Question Number : 16 Question Id : 8995143465 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following particle has all the three dimensions in Nano scale?

- (A) Carbon Nanotube
- (B) Graphene
- (C) Quantum Dot
- (D) Nanoclay

Options :

89951413815. 1

89951413816. 2

89951413817. 3

89951413818. 4

Question Number : 17 Question Id : 8995143466 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Nanocoating on textile substrates can be done using following technique

- (A) Arc Discharge
- (B) Laser Ablation
- (C) Chemical vapour Deposition
- (D) Plasma Polymerisation

Options :

- 89951413819. 1
- 89951413820. 2
- 89951413821. 3
- 89951413822. 4

Question Number : 18 Question Id : 8995143467 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Nanofibers can be produced by following technique

- (A) Solution Spinning
- (B) Dry Jet Wet Spinning
- (C) Electrospinning
- (D) Melt Spinning

Options :

89951413823. 1

89951413824. 2

89951413825. 3

89951413826. 4

Question Number : 19 Question Id : 8995143468 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In Quantum Dots as the size decreases following change in optical property is seen

- (A) Blue Shift
- (B) White Shift
- (C) Red Shift
- (D) Black Shift

Options :

- 89951413827. 1
- 89951413828. 2
- 89951413829. 3
- 89951413830. 4

Question Number : 20 Question Id : 8995143469 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Carbon Nanotubes can be used to impart following property to polymer nanocomposites

- (A) Scratch resistance
- (B) Fluorescence
- (C) UV absorption
- (D) Electrical Conductivity

Options :

- 89951413831. 1
- 89951413832. 2
- 89951413833. 3
- 89951413834. 4

Question Number : 21 Question Id : 8995143470 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Static tenacity of yarn is usually assessed by testing at a gauge length and time to break as

- (A) 1000 mm & 30 sec
- (B) 1000 mm & 50 sec
- (C) 500 mm & 20 sec
- (D) 1000 mm & 1 sec

Options :

- 89951413835. 1
- 89951413836. 2
- 89951413837. 3
- 89951413838. 4

Question Number : 22 Question Id : 8995143471 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Yarn tension during dynamic tensile testing is adjusted by

- (A) Setting the tension arm and the speed of back rollers
- (B) Setting the tension arm only
- (C) Setting the speed of back rollers only
- (D) None of the above

Options :

89951413839. 1

89951413840. 2

89951413841. 3

89951413842. 4

Question Number : 23 Question Id : 8995143472 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Stresses(s)acting on yarn during weaving is/are

(A) Cyclic extension

(B) Axial abrasion

(C) Flexing

(D) All of the above

Options :

89951413843. 1

89951413844. 2

89951413845. 3

89951413846. 4

Question Number : 24 Question Id : 8995143473 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In polyester/viscose spun yarns, the breaking of majority of viscose fibres is due to:

- (A) Viscose being weaker and slippery
- (B) Viscose being weaker and having high friction
- (C) Viscose being shorter and weaker
- (D) Viscose being stronger and having high fibre to fibre friction

Options :

- 89951413847. 1
- 89951413848. 2
- 89951413849. 3
- 89951413850. 4

Question Number : 25 Question Id : 8995143474 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Failure zone length depends on

- (A) Fibre friction
- (B) Spinning technology
- (C) Testing parameters
- (D) All of the above

Options :

89951413851. 1

89951413852. 2

89951413853. 3

89951413854. 4

Question Number : 26 Question Id : 8995143475 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Tensile failure of yarn during warping exhibits more fibre slippage than fibre breakage due to

- (A) Low relative speed between the broken ends of yarn and longer unsupported length of yarn
- (B) Warp yarn tension is very high
- (C) Yarn fluttering
- (D) None of the above

Options :

89951413855. 1

89951413856. 2

89951413857. 3

89951413858. 4

Question Number : 27 Question Id : 8995143476 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the tensile tester can be used to test the yarn at highest extension rate

- (A) Uster Tensorapid
- (B) Instron Tester
- (C) Uster Tensojet
- (D) None of the above

Options :

- 89951413859. 1
- 89951413860. 2
- 89951413861. 3
- 89951413862. 4

Question Number : 28 Question Id : 8995143477 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

A PV yarn is spun with 50:50 ratio based on number of fibres. The density of polyester and viscose fibres are 1.4 and 1.5 g/cm³ respectively. The length of both fibres is 38 mm. The denier of polyester and viscose fibres are 1.4 and 1.5 respectively. What is the PV blend ratio in terms of weight of fibres?

- (A) 40:60
- (B) 0.483:0.517
- (C) 0.558:0.442
- (D) 0.60:0.40

Options :

- 89951413863. 1
- 89951413864. 2
- 89951413865. 3
- 89951413866. 4

Question Number : 29 Question Id : 8995143478 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Compared to viscose fibres, the polyester fibres have

- (A) Higher friction, lower modulus, higher breaking extension
- (B) Higher breaking extension, lower tenacity and higher modulus
- (C) Higher modulus, higher tenacity and low crimp rigidity after dyeing
- (D) Lower tenacity, higher breaking extension, lower friction

Options :

89951413867. 1

89951413868. 2

89951413869. 3

89951413870. 4

Question Number : 30 Question Id : 8995143479 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Fibre to fibre friction can be assessed by testing the

- (A) Tensile strength of fibres
- (B) Tensile strength of roving
- (C) Breaking extension of lap
- (D) None of the above

Options :

89951413871. 1

89951413872. 2

89951413873. 3

89951413874. 4

Question Number : 31 Question Id : 8995143480 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The purpose in providing curved portion at the bottom each chamber in Unimix is

- (A) For smooth transfer of fibre tufts
- (B) To reduce nep formation
- (C) The change the pathlengths for each chamber
- (D) To remove short fibres

Options :

89951413875. 1

89951413876. 2

89951413877. 3

89951413878. 4

Question Number : 32 Question Id : 8995143481 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the statements is correct about Blending Delay Time (BDT)

- (A) Shorter the BDT, better is blending uniformity
- (B) Longer the BDT, better is the blending uniformity
- (C) BDT provides idea about long term blend uniformity
- (D) Shorter the BDT, better is the short term mass uniformity

Options :

- 89951413879. 1
- 89951413880. 2
- 89951413881. 3
- 89951413882. 4

Question Number : 33 Question Id : 8995143482 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In blending machines, in comparison to the weighing hopper system, the metering system

- (A) Decreases the level of impurities
- (B) Improves the longitudinal blend uniformity
- (C) Improves the cross-sectional blend uniformity
- (D) Decreases the nep content

Options :

89951413883. 1

89951413884. 2

89951413885. 3

89951413886. 4

Question Number : 34 Question Id : 8995143483 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In a multi-mixer with 5 chamber, if the time taken to fill one fifth of the chamber is 4 minutes, then the BDT is

- (A) 50 min
- (B) 16 min
- (C) 100 min
- (D) 64 min

Options :

- 89951413887. 1
- 89951413888. 2
- 89951413889. 3
- 89951413890. 4

Question Number : 35 Question Id : 8995143484 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Degree of mixing gives idea about

- (A) Transverse blend uniformity
- (B) Longitudinal blend uniformity
- (C) Short term blend uniformity
- (D) Long term blend uniformity

Options :

- 89951413891. 1
- 89951413892. 2
- 89951413893. 3
- 89951413894. 4

Question Number : 36 Question Id : 8995143485 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

IBI value of zero means the blending is

- (A) Very poor
- (B) Random
- (C) Perfect
- (D) Moderate

Options :

- 89951413895. 1
- 89951413896. 2
- 89951413897. 3
- 89951413898. 4

Question Number : 37 Question Id : 8995143486 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In rotor spinning, the cyclic aggregation of fibre layers occurs in

- (A) Rotor wall
- (B) Opening roller
- (C) Fibre transport Channel
- (D) Rotor groove

Options :

89951413899. 1

89951413900. 2

89951413901. 3

89951413902. 4

Question Number : 38 Question Id : 8995143487 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The maximum gap behind the peel off point, Y_{\max} occurs

- (A) After every rotation of the peel off point
- (B) After every rotation of the rotor
- (C) After unit time
- (D) After the peel off point sweeps the rotor surcumference once completely

Options :

89951413903. 1

89951413904. 2

89951413905. 3

89951413906. 4

Question Number : 39 Question Id : 8995143488 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

At any given point of time after the steady state is reached, the linear density of fibre layer in the rotor groove is

- (A) Uniform through out the circumference of the rotor
- (B) Coarsest at the peel off point and thins down, moving away from peel-off point.
- (C) Finest at the peel off point and thickens, moving away from peel-off point.
- (D) Fluctuating along the rotor circumference.

Options :

89951413907. 1

89951413908. 2

89951413909. 3

89951413910. 4

Question Number : 40 Question Id : 8995143489 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

A rotor of 42mm diameter is rotating at a speed of 1,20,000 rpm with the peel-off point rotating at a speed of 1,32,000 rpm. The Y_{\max} value in “mm” will be

(A) 3

(B) 6

(C) 12

(D) 18

Options :

89951413911. 1

89951413912. 2

89951413913. 3

89951413914. 4

Question Number : 41 Question Id : 8995143490 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Stereology is a mathematical technique to statistically select and process the geometrical data to quantify the entities of n -dimensional object through measurements of its sections and projections, which have dimensions...

- (A) less than n
- (B) more than n
- (C) equal to n
- (D) independent of n

Options :

- 89951413915. 1
- 89951413916. 2
- 89951413917. 3
- 89951413918. 4

Question Number : 42 Question Id : 8995143491 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The relationship regarding the mean distance between the fiber-fiber contacts of 3D random fibrous assemblies (\bar{b}), fiber diameter (d) and fiber volume fraction (V_f) is given by....

(A) $\bar{b} = \frac{d}{4V_f}$

(B) $\bar{b} = \frac{d}{2V_f}$

(C) $\bar{b} = \frac{d}{6V_f}$

(D) $\bar{b} = \frac{2d}{V_f}$

Options :

89951413919. 1

89951413920. 2

89951413921. 3

89951413922. 4

Question Number : 43 Question Id : 8995143492 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A random fibrous assembly made up of polypropylene fiber of diameter $20\ \mu\text{m}$ has been compressed by 40% strain in a confined container. Neglecting any changes caused by the sides of the container, and assuming the compressed fiber volume fraction to be 10%, the value of initial fiber volume fraction is ...

(A) 0.04

(B) 0.40

(C) 0.06

(D) 0.60

Options :

89951413923. 1

89951413924. 2

89951413925. 3

89951413926. 4

Question Number : 44 Question Id : 8995143493 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The value of directional parameter (K_f) for a three-dimensional (3D) random fibrous assembly is...

(A) 0.25

(B) 0.30

(C) 0.40

(D) 0.50

Options :

89951413927. 1

89951413928. 2

89951413929. 3

89951413930. 4

Question Number : 45 Question Id : 8995143494 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The number of fiber-fiber contacts computed in the can be a useful approach in predicting certain mechanical properties of disordered fibrous materials

- (A) microscale
- (B) mesoscale
- (C) marcoscale
- (D) nanoscale

Options :

89951413931. 1

89951413932. 2

89951413933. 3

89951413934. 4

Question Number : 46 Question Id : 8995143495 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Number of fiber-fiber contacts per unit length of fiber is ...

- (A) equal to the mean distance between the fiber-fiber contacts
- (B) equal to the reciprocal of mean distance between the fiber-fiber contacts
- (C) equal to the square of the mean distance between the fiber-fiber contacts
- (D) equal to the square root of the mean distance between the fiber-fiber contacts

Options :

- 89951413935. 1
- 89951413936. 2
- 89951413937. 3
- 89951413938. 4

Question Number : 47 Question Id : 8995143496 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

A nonwoven made up of polypropylene fibers has a mass per unit area of 100 g/m^2 and thickness of 1 mm. Assuming the density of polypropylene fiber to be 0.91 g/cm^3 , the fiber volume fraction is nearly....

(A) 0.05

(B) 0.11

(C) 0.22

(D) 0.33

Options :

89951413939. 1

89951413940. 2

89951413941. 3

89951413942. 4

Question Number : 48 Question Id : 8995143497 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Assuming the fibers are aligned in the in-plane direction then the out-of-plane orientation angle of such fibers would be...

(A) $\frac{\pi}{2}$

(B) $\frac{\pi}{3}$

(C) $\frac{\pi}{4}$

(D) $\frac{\pi}{6}$

Options :

89951413943. 1

89951413944. 2

89951413945. 3

89951413946. 4

Question Number : 49 Question Id : 8995143498 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Fiber A with defined orientation characteristics $(\frac{\pi}{2}, \varphi)$ comes in contact with Fiber B with defined orientation characteristics $(\frac{\pi}{2}, \varphi')$. Assuming φ and φ' are the in-plane orientation angles of fibers A and B, respectively. The angle formed between the axes of fibers A and B is χ , then the relationship between $\cos \chi$ is given by....

(A) $\sin (\varphi - \varphi')$

(B) $\cot (\varphi - \varphi')$

(C) $\cos (\varphi - \varphi')$

(D) $\tan (\varphi - \varphi')$

Options :

89951413947. 1

89951413948. 2

89951413949. 3

89951413950. 4

Question Number : 50 Question Id : 8995143499 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The probability, $p(\theta, \varphi; \theta', \varphi')$, of formation of a contact between the fibers A and B of same diameter (D) and length (l) forming a parallelepiped around them is given by,

(A) $\frac{2Dl^2}{V} \cos \chi$

(B) $\frac{2Dl^2}{V} \tan \chi$

(C) $\frac{2Dl^2}{V} \operatorname{cosec} \chi$

(D) $\frac{2Dl^2}{V} \sin \chi$

Options :

89951413951. 1

89951413952. 2

89951413953. 3

89951413954. 4

Question Number : 51 Question Id : 8995143500 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A 3D woven profiled structure is produced to achieve :

- (A) High modulus
- (B) Improved junction strength of structural elements of machine assemblies
- (C) Energy absorbent structures
- (D) High impact strength

Options :

89951413955. 1

89951413956. 2

89951413957. 3

89951413958. 4

Question Number : 52 Question Id : 8995143501 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a 3D woven construction, z-yarn is used to produce :

- (A) High tensile strength
- (B) High fibre volume fraction
- (C) High fabric thickness
- (D) More flexible structure

Options :

- 89951413959. 1
- 89951413960. 2
- 89951413961. 3
- 89951413962. 4

Question Number : 53 Question Id : 8995143502 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

A linear take up mechanism in 3D weaving machine is introduced to

- (A) Increase weaving productivity
- (B) Reduce fabric defect
- (C) Prevent damage of thick fabric
- (D) Accommodate high pick density

Options :

89951413963. 1

89951413964. 2

89951413965. 3

89951413966. 4

Question Number : 54 Question Id : 8995143503 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

For a given fibre volume fraction, maximum strength and stiffness of the fibre reinforced composite can be obtained when fibres are positioned in :

- (A) Continuous and one direction
- (B) Continuous and two mutual perpendicular directions
- (C) Continuous and random at three different axes
- (D) Chopped fibre form (discontinuous and random)

Options :

- 89951413967. 1
- 89951413968. 2
- 89951413969. 3
- 89951413970. 4

Question Number : 55 Question Id : 8995143504 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Efficiency of reinforcement in case of textile structural composite is maximum when angle between fibre and stress is :

- (A) 90°
- (B) 60°
- (C) 40°
- (D) 0°

Options :

- 89951413971. 1
- 89951413972. 2
- 89951413973. 3
- 89951413974. 4

Question Number : 56 Question Id : 8995143505 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

One of the limitations of a 2D fabric is

- (A) Low strength in Length direction
- (B) Low strength in width direction
- (C) Low strength and stiffness in thickness direction
- (D) Low stiffness in length direction

Options :

89951413975. 1

89951413976. 2

89951413977. 3

89951413978. 4

Question Number : 57 Question Id : 8995143506 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a 2D fabric

- (A) Constituent yarns are disposed in one plane
- (B) Constituent yarns are disposed in a two mutually perpendicular planes
- (C) Constituent yarns are disposed in a three mutually perpendicular planes
- (D) Constituent yarns are disposed in one plane and one direction

Options :

89951413979. 1

89951413980. 2

89951413981. 3

89951413982. 4

Question Number : 58 Question Id : 8995143507 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pull back mechanism is required to weave spacer fabric , because

- (A) Connecting walls have longer length than ground fabric
- (B) Connecting walls have shorter length than ground fabric
- (C) Take up system needs to remain idle during production of extra length of connecting wall
- (D) Pull back mechanism helps to increase weaving speed

Options :

- 89951413983. 1
- 89951413984. 2
- 89951413985. 3
- 89951413986. 4

Question Number : 59 Question Id : 8995143508 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Ultimate stress of fibre reinforced composite is highest when reinforced with

- (A) 2D fabric
- (B) 3D fabric
- (C) Chopped fibre
- (D) UD fabric

Options :

- 89951413987. 1
- 89951413988. 2
- 89951413989. 3
- 89951413990. 4

Question Number : 60 Question Id : 8995143509 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Which of the following sequence is correct for impact resistance of the textile structure reinforced composites

- (A) Plain matrix > UD > 2D > 3D
- (B) 3D > 2D > UD > Plain matrix
- (C) UD > 2D > 3D > Plain matrix
- (D) 2D > 3D > Plain matrix > UD

Options :

- 89951413991. 1
- 89951413992. 2
- 89951413993. 3
- 89951413994. 4

Question Number : 61 Question Id : 8995143510 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Colours used in inkjet printing are known as

- (A) Pot colours
- (B) Spot colours
- (C) Drop colours
- (D) Process colours

Options :

89951413995. 1

89951413996. 2

89951413997. 3

89951413998. 4

Question Number : 62 Question Id : 8995143511 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The desired post treatment of fabrics printed by acid inks is

- (A) Backing
- (B) Steaming
- (C) Reduction clearing
- (D) Oxidation

Options :

- 89951413999. 1
- 89951414000. 2
- 89951414001. 3
- 89951414002. 4

Question Number : 63 Question Id : 8995143512 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

To produce a true photographic print of a person on polyester fabric, minimum number of ink colours required is

(A) 1

(B) 2

(C) 3

(D) 4

Options :

89951414003. 1

89951414004. 2

89951414005. 3

89951414006. 4

Question Number : 64 Question Id : 8995143513 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Consider the following materials, the relationship that describes the value of piezoelectric constant (d), is

- (A) $PZT < Quartz < Barium\ titanate$
- (B) $PZT > Quartz < Barium\ titanate$
- (C) $PZT < Quartz > Barium\ titanate$
- (D) $PZT > Quartz > Barium\ titanate$

Options :

- 89951414007. 1
- 89951414008. 2
- 89951414009. 3
- 89951414010. 4

Question Number : 65 Question Id : 8995143514 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

For a 1200 dpi resolution, the distance (μm) between the center of the dots is approximately

(A) 21

(B) 42

(C) 63

(D) 84

Options :

89951414011. 1

89951414012. 2

89951414013. 3

89951414014. 4

Question Number : 66 Question Id : 8995143515 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Satellite drops are formed more if

- (A) The viscosity of ink is reduced from the optimum
- (B) The viscosity of the ink is increased from the optimum
- (C) The distance between the print head and fabric surface is very high
- (D) The nozzle is partially blocked.

Options :

- 89951414015. 1
- 89951414016. 2
- 89951414017. 3
- 89951414018. 4

Question Number : 67 Question Id : 8995143516 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Higher surface tension of the ink

- (A) Is due the presence of higher content of surface active agent
- (B) Increases formation of spherical drops
- (C) Decreases satellite formation
- (D) Decreases the formation of spherical drops.

Options :

- 89951414019. 1
- 89951414020. 2
- 89951414021. 3
- 89951414022. 4

Question Number : 68 Question Id : 8995143517 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

In the context of fluid flow, the viscous forces are proportional to the

- (A) Inverse of diameter of nozzle
- (B) Square of the velocity of fluid flow
- (C) Surface tension of the fluid
- (D) Velocity of the fluid flow

Options :

- 89951414023. 1
- 89951414024. 2
- 89951414025. 3
- 89951414026. 4

Question Number : 69 Question Id : 8995143518 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

If the operating frequency of inkjet printing machine is increased from 10 kHz to 300 kHz, the percent change in productivity will be

(A) 290 , 580, 2900, 5800

(B) 580

(C) 2900

(D) 5800

Options :

89951414027. 1

89951414028. 2

89951414029. 3

89951414030. 4

Question Number : 70 Question Id : 8995143519 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the diameter of the printhead nozzle (L) and the surface tension are doubled keeping all other parameters the same, the percent change in the Weber number (W_e) will be

.....

(A) 0

(B) 50

(C) 100

(D) 200

Options :

89951414031. 1

89951414032. 2

89951414033. 3

89951414034. 4

Question Number : 71 Question Id : 8995143520 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Tannin based compounds can be categorized as

- (A) high molecular weight phenolic substances
- (B) essential oils
- (C) flavone compounds
- (D) terpenoids

Options :

89951414035. 1

89951414036. 2

89951414037. 3

89951414038. 4

Question Number : 72 Question Id : 8995143521 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The chance of bacterial growth is maximum in case of

- (A) cotton fabric
- (B) PET fabric
- (C) PP fabric
- (D) both PP and PET fabric

Options :

89951414039. 1

89951414040. 2

89951414041. 3

89951414042. 4

Question Number : 73 Question Id : 8995143522 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The fabric breathability should maintain to the highest extent in case of

- (A) dip coating
- (B) knife on roll coating
- (C) L-b-L coating
- (D) knife coating

Options :

89951414043. 1

89951414044. 2

89951414045. 3

89951414046. 4

Question Number : 74 Question Id : 8995143523 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

-----functional group is mainly responsible for antimicrobial efficacy of chitosan

- (A) $-\text{OH}$
- (B) $-\text{NH}_2$
- (C) $-\text{CH}_2\text{OH}$
- (D) $-\text{NH}-\text{CO}-\text{CH}_3$

Options :

- 89951414047. 1
- 89951414048. 2
- 89951414049. 3
- 89951414050. 4

Question Number : 75 Question Id : 8995143524 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Natural extract like Pomegranate rind extract (PRE) on cotton

- (A) acts as fire retardant in gas phase mechanism
- (B) enhances the pyrolysis temperature of cotton
- (C) physically coats the textiles and protects from heat
- (D) acts as fire retardant in condensed phase mechanism

Options :

89951414051. 1

89951414052. 2

89951414053. 3

89951414054. 4

Question Number : 76 Question Id : 8995143525 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Prevention of oxygen access to the flame in making fire retardant cotton is called

- (A) gas phase mechanism
- (B) condensed phase mechanism
- (C) heat barrier mechanism
- (D) intumescent mechanism

Options :

- 89951414055. 1
- 89951414056. 2
- 89951414057. 3
- 89951414058. 4

Question Number : 77 Question Id : 8995143526 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The mechanism of antimicrobial action of an active agent can be assessed by

- (A) XRD analysis
- (B) AATCC -147 test method
- (C) Gram-staining analysis
- (D) TEM analysis

Options :

- 89951414059. 1
- 89951414060. 2
- 89951414061. 3
- 89951414062. 4

Question Number : 78 Question Id : 8995143527 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Dehydration of cotton structure, promotion of char formation and prevention of flame propagation in fire retardant finishing of cotton belong to

- (A) condensed phase mechanism
- (B) gas phase mechanism
- (C) both the condensed and gas phase mechanism
- (D) none of the above

Options :

- 89951414063. 1
- 89951414064. 2
- 89951414065. 3
- 89951414066. 4

Question Number : 79 Question Id : 8995143528 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

After cross-linking of cotton in presence of acid catalyst

- (A) tensile strength of cotton fabric increases
- (B) tensile strength of cotton fabric decreases
- (C) tearing strength of cotton fibre decreases
- (D) both 'B' and 'C'

Options :

- 89951414067. 1
- 89951414068. 2
- 89951414069. 3
- 89951414070. 4

Question Number : 80 Question Id : 8995143529 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

For attachment of active ingredients of Neem extract into cotton fabric, glyoxal/glycol can be used as

- (A) catalysts
- (B) crosslinking agents
- (C) crosslinking agent and catalyst, respectively
- (D) catalyst and crosslinking agent, respectively

Options :

89951414071. 1

89951414072. 2

89951414073. 3

89951414074. 4

Question Number : 81 Question Id : 8995143530 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In FTIR spectroscopy, the absorption of IR happens when frequency of incident IR light is

- (A) higher than the frequency of bond vibration
- (B) same as the frequency of bond vibration
- (C) lower than frequency of bond vibration
- (D) independent of frequency of bond vibration

Options :

- 89951414075. 1
- 89951414076. 2
- 89951414077. 3
- 89951414078. 4

Question Number : 82 Question Id : 8995143531 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

For ATR-FTIR, which of the following is **not** true

- (A) a crystal is used through which IR is internally reflected
- (B) any type of liq, gel, solid sample can be used
- (C) gives better signal from groups near the surface
- (D) sample has to be transparent

Options :

89951414079. 1

89951414080. 2

89951414081. 3

89951414082. 4

Question Number : 83 Question Id : 8995143532 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

FTIR is a technique to know about

- (A) atomic percentage in a sample
- (B) roughness of the sample surface
- (C) correct chemical structure of the compound
- (D) major chemical groups in a compound

Options :

89951414083. 1

89951414084. 2

89951414085. 3

89951414086. 4

Question Number : 84 Question Id : 8995143533 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Molecules that are Raman active

- (A) do not vibrate
- (B) are not polarizable
- (C) their polarization changes with vibration
- (D) dissociates in laser light

Options :

89951414087. 1

89951414088. 2

89951414089. 3

89951414090. 4

Question Number : 85 Question Id : 8995143534 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which statement is **true** for Raman Spectroscopy

- (A) It is sensitive to water
- (B) It is not sensitive to water
- (C) It requires a weak light source
- (D) It can not be used for chemical characterization

Options :

- 89951414091. 1
- 89951414092. 2
- 89951414093. 3
- 89951414094. 4

Question Number : 86 Question Id : 8995143535 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

XPS

- (A) is a surface analysis technique
- (B) is not appropriate for identifying atoms
- (C) does not give information on bonding (oxidative) state of atoms
- (D) gives physical structure of the sample

Options :

89951414095. 1

89951414096. 2

89951414097. 3

89951414098. 4

Question Number : 87 Question Id : 8995143536 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The full form of XPS is

- (A) X ray photo-electricity spectroscopy
- (B) X-cited photocurrent spectroscopy
- (C) X-ray photoelectron spectroscopy
- (D) X-ray photon spectroscopy

Options :

89951414099. 1

89951414100. 2

89951414101. 3

89951414102. 4

Question Number : 88 Question Id : 8995143537 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Electron scanning microscopy is a technique to study

- (A) internal morphology of the sample
- (B) chemical nature of the sample
- (C) crystal structure of the sample
- (D) surface morphology of the sample

Options :

- 89951414103. 1
- 89951414104. 2
- 89951414105. 3
- 89951414106. 4

Question Number : 89 Question Id : 8995143538 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Electron scanning microscopy uses

- (A) a light source
- (B) an x-ray source
- (C) a laser source
- (D) an electron beam source

Options :

89951414107. 1

89951414108. 2

89951414109. 3

89951414110. 4

Question Number : 90 Question Id : 8995143539 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The most appropriate technique to investigate very small chemical changes on the surface of a sample is

- (A) FTIR
- (B) XPS
- (C) EDX
- (D) Raman

Options :

- 89951414111. 1
- 89951414112. 2
- 89951414113. 3
- 89951414114. 4

Question Number : 91 Question Id : 8995143540 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The non-statistical sampling technique amongst the following is

- (A) Stratified Sampling
- (B) Systematic Sampling
- (C) Cluster Sampling
- (D) Haphazard Sampling

Options :

- 89951414115. 1
- 89951414116. 2
- 89951414117. 3
- 89951414118. 4

Question Number : 92 Question Id : 8995143541 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The nominal standard deviation of yarn strength is 2.5 and the sample standard deviation is 3. The F value will be

(A) 0.70

(B) 1.44

(C) 2.22

(D) 3.21

Options :

89951414119. 1

89951414120. 2

89951414121. 3

89951414122. 4

Question Number : 93 Question Id : 8995143542 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Standard error of the means (S.E.) of Yarn A is 3 and standard error of the means (S.E.) of Yarn B is 4 then standard error of the difference between the means (S.E. _{diff}) will be,

(A) 1

(B) 3

(C) 5

(D) 7

Options :

89951414123. 1

89951414124. 2

89951414125. 3

89951414126. 4

Question Number : 94 Question Id : 8995143543 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The 2.5% span length of cotton fibre is

- (A) used to calculate the Uniformity Ratio
- (B) used to calculate the Uniformity Index
- (C) used to calculate the Dispersion percent
- (D) almost equal to Mean Length

Options :

- 89951414127. 1
- 89951414128. 2
- 89951414129. 3
- 89951414130. 4

Question Number : 95 Question Id : 8995143544 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The correct statement amongst the following with reference to KESF 4 is

- (A) Frictional force detector works in extension (tensile) mode only
- (B) Frictional force detector works in compression mode only
- (C) SMD indicates geometrical roughness of the fabric
- (D) MMD indicates geometrical roughness of the fabric

Options :

- 89951414131. 1
- 89951414132. 2
- 89951414133. 3
- 89951414134. 4

Question Number : 96 Question Id : 8995143545 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Flatter middle zone in baer sorter diagram of cotton indicates

- (A) Dispersion is minimum
- (B) Dispersion is maximum
- (C) Effective length is more
- (D) Mean length is more

Options :

89951414135. 1

89951414136. 2

89951414137. 3

89951414138. 4

Question Number : 97 Question Id : 8995143546 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Uster hairiness tester works on

- (A) Capacitance principle
- (B) Light scattering principle
- (C) Impedance principle
- (D) Electrical resistance principle

Options :

- 89951414139. 1
- 89951414140. 2
- 89951414141. 3
- 89951414142. 4

Question Number : 98 Question Id : 8995143547 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The the value of standard deviation for the set of 49 inputs with the standard error of 16.4 is,

(A) 110.8

(B) 114.8

(C) 115.8

(D) 116.8

Options :

89951414143. 1

89951414144. 2

89951414145. 3

89951414146. 4

Question Number : 99 Question Id : 8995143548 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The limit irregularity and actual irregularity are 8.4 and 9.6 respectively. The index of irregularity is approximately

(A) 0.87

(B) 1.14

(C) 1.21

(D) 9.62

Options :

89951414147. 1

89951414148. 2

89951414149. 3

89951414150. 4

Question Number : 100 Question Id : 8995143549 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The correct statement amongst the following for single plate togmeter is

- (A) It is necessary to perform a bare plate test to measure the thermal insulation of air
- (B) It is not necessary to perform a bare plate test to measure the thermal insulation of air
- (C) The insulation of fabric is calculated by adding insulation of air
- (D) The insulation of fabric is calculated by integrating insulation of air

Options :

89951414151. 1

89951414152. 2

89951414153. 3

89951414154. 4