

TCSiON CAE

Notations :

- Options shown in green color and with ✓ icon are correct.
- Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	PC22124 AGRICULTURE ENGINEERING AEE 2212
Subject Name :	PC22124 AGRICULTURE ENGINEERING AEE2212
Actual Answer Key :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 1 Question Id : 630680219260 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of surveying uses Global Positioning System (GPS)?

Options :

- ✖ Photographic Surveying
- ✖ Archaeological Surveying
- ✓ Satellite-based Surveying
- ✖ Plane Table Surveying

Question Number : 2 Question Id : 630680219261 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of surveying is also known as Directional Surveying?

Options :

- ✖ Plane Table Surveying
- ✖ Tacheometric Surveying

3. ✘ Chain Surveying
4. ✔ Compass Surveying

Question Number : 3 Question Id : 630680219262 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

In which of the following types of surveying is the vertical distance measured?

Options :

1. ✔ Levelling
2. ✘ Chain Surveying
3. ✘ Plane Table Surveying
4. ✘ Photographic Surveying

Question Number : 4 Question Id : 630680219263 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

In which of the following angles do contour lines cross valley-lines?

Options :

1. ✘ 45°
2. ✔ 90°
3. ✘ 120°
4. ✘ 60°

Question Number : 5 Question Id : 630680219264 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the sources of errors:

- A. Instrumental errors are caused by flaws in the design or setup of surveying tools, as well as movement of the parts
- B. Natural errors are brought on by sight, touch, and hearing in humans

Which of the above statements are correct?

Options :

1. ✔ Only A
2. ✘ Both A and B
3. ✘ Only B
4. ✘ Neither A nor B

Question Number : 6 Question Id : 630680219265 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about Plane Table Surveying.

- A. The alidade may simply have sight vanes attached to both ends, or it may have a telescope.
- B. The magnetic meridian's direction is shown on the paper using a trough compass that has two bubble tubes set on a square metal plate at right angles to one another.
- C. To centre the table at a specific station, a plumbing fork with a plumb bob connected to one end is utilised.

Which of the statements are correct?

Options :

1. ✘ Only C
2. ✘ Only B and C
3. ✔ A, B and C
4. ✘ Only B

Question Number : 7 Question Id : 630680219266 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following about the measurement of traverse angles in theodolite surveying:

1. Repetition Method	A. The measuring of horizontal angles with a common station is best done using this method.
2. Reiteration Method	B. By maintaining the Vernier clamped while sighting at the back station, an angle is measured using this technique either three or four times.
3. Practical Method	C. This method involves measuring a number of separate traverse angle readings, then averaging them.

Options :

1. ✘ 1-A, 2-B, 3-C
2. ✘ 1-C, 2-A, 3-B
3. ✘ 1-A, 2-C, 3-B
4. ✔ 1-B, 2-A, 3-C

Question Number : 8 Question Id : 630680219267 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Which of the following pairs about compasses is incorrect?

- A. Prismatic Compass: used to align with a target whose bearing needs to be ascertained.
- B. Magnetic Compass: It is possible to calculate a line's magnetic bearings.
- C. Surveyor Compass: Surveyors typically use this tool to measure vertical angles and to figure out the magnetic bearing of a line of sight.

Options :

1. ✘ Only A
2. ✔ Only C
3. ✘ Both A and C
4. ✘ Only B

Question Number : 9 Question Id : 630680219268 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of fluids does not follow Newton's law of viscosity?

Options :

1. ✘ Newtonian Fluid
2. ✘ Ideal Plastic Fluid
3. ✔ Non-Newtonian Fluid
4. ✘ Real Fluid

Question Number : 10 Question Id : 630680219269 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

In which of the types of equilibrium of floating bodies does the Metacentre (M) coincides with the Centre of Gravity (G)?

Options :

1. ✔ Neutral Equilibrium
2. ✘ Unstable Equilibrium
3. ✘ Stable Equilibrium
4. ✘ Both Stable and Unstable Equilibrium

Question Number : 11 Question Id : 630680219270 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following flow lines represents the path that is followed by a particle released into the fluid?

Options :

1. ✖ Streak Lines
2. ✔ Path Lines
3. ✖ Time Lines
4. ✖ Stream Lines

Question Number : 12 Question Id : 630680219271 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Read the following relations:

- A. Total Head = Pressure Head
- B. Total Head = Pressure Head + Velocity Head + Datum Head

Which of these relations are described by Bernoulli's Theorem?

Options :

1. ✖ Both A and B
2. ✔ Only B
3. ✖ Neither A nor B
4. ✖ Only A

Question Number : 13 Question Id : 630680219272 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Which of the following statements about the flow in pipes is correct?

- A. Small diameter pipes with high viscosity fluid and slower flow rates exhibit laminar flow.
- B. In large diameter pipes with rapid fluid flow, turbulent flow is more likely to develop.

Options :

1. ✖ Only B
2. ✖ Neither A nor B
3. ✔ Both A and B
4. ✖ Only A

Question Number : 14 Question Id : 630680219273 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements:

- A. An opening provided in a tank's side that extends even above the liquid's free surface is referred to as a "notch."
- B. Water flows over an orifice while water passes through a notch or weir.
- C. A notch or weir is a barrier placed in a waterway to force the water to flow through it or over it by causing the water level to increase behind it.

Identify the correct statement/statements.

Options :

1. ✖ Both A and B
2. ✔ Both A and C
3. ✖ Only B
4. ✖ A, B and C

Question Number : 15 Question Id : 630680219274 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Match the following empirical formulae with their constants:

1. Chezy's Formula	A. K
2. Bazin's Formula	B. C
3. Kutter's Formula	C. N

Options :

1. ✘ 1-A, 2-B, 3-C
2. ✔ 1-B, 2-A, 3-C
3. ✘ 1-C, 2-B, 3-A
4. ✘ 1-B, 2-C, 3-A

Question Number : 16 Question Id : 630680219275 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Which of the following pair/pairs related to the different depths in Open Channel Flow is correct?

- A. Critical Depth: depth of water at which flow has minimum total specific energy for a given discharge
- B. Supercritical Depth: depth of water which is greater than critical depth
- C. Subcritical Depth: depth of water which is smaller than critical depth

Options :

1. ✔ Only A
2. ✘ A, B and C
3. ✘ Both B and C
4. ✘ Only C

Question Number : 17 Question Id : 630680219276 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following Reynold's numbers in the increasing order of viscous forces:

1, 2, 4, 5

Note: The numbers are in the order of ten million.

Options :

1. ✘ $5 < 2 < 4 < 1$
2. ✘ $1 < 2 < 4 < 5$
3. ✔ $5 < 4 < 2 < 1$
4. ✘ $1 < 4 < 2 < 5$

Question Number : 18 Question Id : 630680219277 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following Atterberg's Limits is determined using Cone penetration method?

Options :

1. ✔ Liquid Limit
2. ✘ Shrinkage Limit
3. ✘ Plastic Limit
4. ✘ Plasticity Index

Question Number : 19 Question Id : 630680219278 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following relations about the quicksand condition is correct?

Options :

1. ✓ Effective Stress = 0
2. ✗ Effective Stress > 1
3. ✗ Effective Stress < 1
4. ✗ Effective Stress = 1

Question Number : 20 Question Id : 630680219279 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following should be the shape of the space formed between two Flow Lines and two Equipotential Lines?

Options :

1. ✗ Elliptical
2. ✓ Square
3. ✗ Triangular
4. ✗ Circular

Question Number : 21 Question Id : 630680219280 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following shear tests of soil uses four steel blades at right angles to each other?

Options :

1. ✗ Triaxial Shear Test
2. ✗ Direct Shear Test
3. ✗ Unconfined Compression Test
4. ✓ Vane Shear Test

Question Number : 22 Question Id : 630680219281 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT Heavy Compaction Equipment?

Options :

1. ✗ Pneumatic Tyred Roller
2. ✗ Smooth Wheeled Roller
3. ✓ Vibrating Plate Compactor
4. ✗ Sheepsfoot Roller

Question Number : 23 Question Id : 630680219282 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following two assumptions about Terzaghi's Theory of Consolidation:

- A. Darcy's law is not valid
- B. Soil particles and water are incompressible.

Identify the correct assumption/assumptions.

Options :

1. ✗ Only A
2. ✓ Only B
3. ✗ Both A and B
4. ✗ Neither A nor B

Question Number : 24 Question Id : 630680219283 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements:

- A. The Casagrande method determines the coefficient of consolidation at 50% consolidation
- B. The Taylor method determines the coefficient of consolidation value at 90% consolidation
- C. The Casagrande's method is also called the square root of time method
- D. The Taylor's method is also called the logarithm of time method

Which of the following statements about the methods of determination of coefficient of consolidation is correct?

Options :

- 1. ✓ Both A and B
- 2. ✗ Only C
- 3. ✗ Both A and D
- 4. ✗ All of them

Question Number : 25 Question Id : 630680219284 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following about Earth Pressures of soil:

1. Active Earth Pressure	A. Retaining wall is at Rest
2. Passive Earth Pressure	B. Retaining wall moves towards the soil
3. At Rest Earth Pressure	C. Retaining wall moves away from the soil

Options :

- 1. ✗ 1-A, 2-B, 3-C
- 2. ✓ 1-C, 2-B, 3-A
- 3. ✗ 1-B, 2-C, 3-A
- 4. ✗ 1-C, 2-A, 3-B

Question Number : 26 Question Id : 630680219285 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

According to the Rankine method of calculating earth pressure coefficients, which of the following are correct:

- A. $K_a = (1 - \sin\phi) / (1 + \sin\phi)$
- B. $K_p = (1 + \sin\phi) / (1 - \sin\phi)$
- C. $K_o = (1 - \sin\phi)$

Where ϕ = Effective soil stress friction angle

Options :

- 1. ✗ Only A and C
- 2. ✗ Only B and C
- 3. ✗ Only C
- 4. ✓ A, B and C

Question Number : 27 Question Id : 630680219286 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following causes is responsible for buckling failure in Columns?

Options :

- 1. ✓ Length of the column is greater when compared with its lateral dimensions
- 2. ✗ Length of the column is smaller when compared with its lateral dimensions
- 3. ✗ Length of the column is unity

4. ✖ Length of the column is equal when compared with its lateral dimensions

Question Number : 28 Question Id : 630680219287 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is a type of failure NOT seen in Masonry Dams?

Options :

1. ✖ Compression
2. ✖ Overturning
3. ✖ Sliding
4. ✔ Twisting

Question Number : 29 Question Id : 630680219288 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following statements gives the correct description about the Principle of superposition?

Options :

1. ✖ Deflection caused by a force can be added to the deflection caused by another force to get the deflection resulting from only one of the forces being applied.
2. ✖ Deflection caused by a force can be multiplied to the deflection caused by another force to get the deflection resulting from both the forces being applied.
3. ✔ Deflection caused by a force can be added to the deflection caused by another force to get the deflection resulting from both the forces being applied.
4. ✖ Deflection caused by a force can be subtracted to the deflection caused by another force to get the deflection resulting from both the forces being applied.

Question Number : 30 Question Id : 630680219289 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about Columns:

- A. When the ratio of the effective length of a column to its least lateral dimension does not exceed 12, it is called short column.
- B. When the ratio of the effective length of a column to its least lateral dimension exceeds 12, it is called long column.

Identify the CORRECT statement/statements.

Options :

1. ✔ Both A and B
2. ✖ Only B
3. ✖ Neither A nor B
4. ✖ Only A

Question Number : 31 Question Id : 630680219290 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about structures:

- A. Structure is generally classified into two categories as Determinate and Indeterminate/Redundant Structures for analysis of structures to find forces
- B. Determinate structures are analysed just by the use of basic equilibrium equations.
- C. Redundant or indeterminate structures are not capable of being analysed by mere use of basic equilibrium equations.

Identify the INCORRECT statement/statements.

Options :

1. ✖ A and C
2. ✖ Only C
3. ✖ B and C

4. ✓ None of the other options

Question Number : 32 Question Id : 630680219291 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Identify the CORRECT pair:

- A. Determinate structure : Simply supported beam
- B. Indeterminate structure : Cantilever Beam

Options :

- 1. ✗ Both A and B
- 2. ✓ Only A
- 3. ✗ Only B
- 4. ✗ Neither A nor B

Question Number : 33 Question Id : 630680219292 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following deflections in beams in increasing order on the basis of their slopes:

- 1. 0, 2. 25°, 3. 10°, 4. 30°

Options :

- 1. ✓ $4 < 2 < 3 < 1$
- 2. ✗ $1 < 2 < 3 < 4$
- 3. ✗ $2 < 1 < 3 < 4$
- 4. ✗ $4 < 3 < 2 < 1$

Question Number : 34 Question Id : 630680219293 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following types of beams in increasing order of the number of reactions they can resist:

- 1. Fixed,
- 2. Hinged,
- 3. Roller

Options :

- 1. ✗ $2 < 3 < 1$
- 2. ✓ $3 < 2 < 1$
- 3. ✗ $1 < 2 < 3$
- 4. ✗ $1 < 3 < 2$

Question Number : 35 Question Id : 630680219294 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the method of the analysis of Statically Indeterminate structures in chronological order:

- 1. Integrating to obtain general solution
- 2. Write the differential equation
- 3. Apply boundary and other conditions to evaluate the unknown quantities

Options :

- 1. ✗ 1, 2, 3
- 2. ✗ 3, 2, 1
- 3. ✓ 2, 1, 3
- 4. ✗ 1, 3, 2

Question Number : 36 Question Id : 630680219295 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following building materials provide the structural framework for larger buildings?

Options :

1. ✓ Metal
2. ✗ Concrete
3. ✗ Brick
4. ✗ Wood

Question Number : 37 Question Id : 630680219296 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of estimates gives a rough estimate of the cost of the entire project?

Options :

1. ✗ Detailed Estimate
2. ✓ Preliminary Estimate
3. ✗ Cost Estimate
4. ✗ Bid Estimate

Question Number : 38 Question Id : 630680219297 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following classes of bricks can be used for permanent structures?

Options :

1. ✓ First class bricks
2. ✗ Second class bricks
3. ✗ Third class bricks
4. ✗ Fourth class bricks

Question Number : 39 Question Id : 630680219298 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following agricultural buildings are used to minimize post-harvest losses?

Options :

1. ✗ Silos
2. ✓ Cold Storages
3. ✗ Poultry Coops
4. ✗ Barns

Question Number : 40 Question Id : 630680219299 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about agricultural buildings:

- A. Hay and animal feed are essentials on every farm, so hay and feed storage facilities are crucial.
- B. Riding arenas can be created on agricultural land since any landowner who grows horses understands how important it is to give them a regular workout to preserve their health and performance.

The INCORRECT statement/statements are:

Options :

1. ✗ Only A
2. ✗ Both A and B
3. ✓ Neither A nor B

4. ✖ Only B

Question Number : 41 Question Id : 630680219300 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0 Correct Marks : 2 Wrong Marks : 0

Read the following statements about the types of estimates:

- A. A quantity estimate is a forecast that contains all the precise quantitative information about the materials needed to finish the project.
- B. A bid estimate is created with the assumption that the project will not be awarded.

The INCORRECT statement/statements are:

Options :

- 1. ✖ Only A
- 2. ✖ Both A and B
- 3. ✔ Only B
- 4. ✖ Neither A nor B

Question Number : 42 Question Id : 630680219301 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0 Correct Marks : 2 Wrong Marks : 0

Read the following statements about building materials:

- A. Rocks are the longest lasting building materials available
- B. Wood is a product of trees, and sometimes other fibrous plants, used for construction purposes when cut or pressed into lumber and timber.
- C. Portland cement concrete is the most prevalent type of concrete.

The CORRECT statement/statements are:

Options :

- 1. ✖ Only A and B
- 2. ✖ Only C
- 3. ✖ Only A and C
- 4. ✔ A, B and C

Question Number : 43 Question Id : 630680219302 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Which type of precipitation is formed at or near the ground when drizzle droplets or raindrops become supercooled as they fall through a layer of air at a sub-frostpoint temperature?

Options :

- 1. ✖ Hail
- 2. ✔ Glaze
- 3. ✖ Snow
- 4. ✖ Rain

Question Number : 44 Question Id : 630680219303 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

How many type(s) of Lysimeters are available?

Options :

- 1. ✔ Two
- 2. ✖ Four
- 3. ✖ Three
- 4. ✖ Only one

Question Number : 45 Question Id : 630680219304 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following sizes are categorized as Small watersheds?

Options :

1. ✘ $< 500km^2$
2. ✘ $< 1000km^2$
3. ✔ $< 250km^2$
4. ✘ $< 50km^2$

Question Number : 46 Question Id : 630680219305 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

How many types of methods are commonly used for Stream Gauging?

Options :

1. ✘ 1-2
2. ✔ 3-4
3. ✘ 5-6
4. ✘ 7-8

Question Number : 47 Question Id : 630680219306 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the types of precipitation:

- A. Ice crystals in the form of flakes make up snow.
- B. Rain drops are larger than 0.5 mm in size.

The CORRECT statement/statements are:

Options :

1. ✔ Both A and B
2. ✘ Only B
3. ✘ Only A
4. ✘ Neither A nor B

Question Number : 48 Question Id : 630680219307 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the measurement of Evaporation:

- A. USWB Class A Evaporation Pan is made of unpainted GI sheet
- B. ISI Standard Pan is made of copper sheet 0.9 mm thick, tinned inside and painted white outside
- C. Colorado Sunken Pan is made up of painted GI sheet

Identify the INCORRECT statement/statements.

Options :

1. ✘ A, B and C
2. ✘ Only A
3. ✔ Only C
4. ✘ Both B and C

Question Number : 49 Question Id : 630680219308 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following about Drought:

1. Meteorological Drought	A. Situation of extremely low rainfall resulting in the drying up of streams, rivers, lakes, ponds.
2. Hydrological Drought	B. Due to lack of rain and loss of soil moisture, agricultural yield is affected.
3. Agricultural Drought	C. Drought which is caused by lack of rain in a region.

Options :

1. ✘ 1-A, 2-B, 3-C
2. ✔ 1-C, 2-A, 3-B
3. ✘ 1-C, 2-B, 3-A
4. ✘ 1-B, 2-C, 3-A

Question Number : 50 Question Id : 630680219309 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following sequences of stream orders are arranged from larger to smaller basin sizes?

Options :

1. ✔ First Order, Second Order, Third Order, Fourth Order
2. ✘ Second Order, Fourth Order, Sixth Order, Eighth Order
3. ✘ Twelfth Order, Seventh Order, Fifth Order, Fourth Order
4. ✘ First Order, Third Order, Fifth Order, Seventh Order

Question Number : 51 Question Id : 630680219310 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following procedural steps for PMP estimation in correct order:

1. Estimation of frequency factor.
2. Determination of uncertainty in frequency factor.
3. Determination of uncertainty in the PMP values.
4. Selection of precipitation data.
5. Computation of PMP.

Options :

1. ✘ 1, 2, 3, 4, 5
2. ✘ 3, 2, 1, 5, 4
3. ✘ 4, 1, 2, 3, 5
4. ✔ 4, 1, 2, 5, 3,

Question Number : 52 Question Id : 630680219311 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of springs is formed when the groundwater table rises and intercepts a hillslope?

Options :

1. ✔ Gravity Springs
2. ✘ Surface Springs
3. ✘ Sub-surface Springs
4. ✘ Artesian Springs

Question Number : 53 Question Id : 630680219312 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a procedure used for development of wells?

Options :

1. ✘ Over-pumping
2. ✔ Low-velocity water jetting
3. ✘ Air surging and pumping
4. ✘ Backwashing

Question Number : 54 Question Id : 630680219313 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following factors should NOT be considered in an artificial groundwater recharge technique?

Options :

1. ✘ Clogging potential
2. ✘ Applicable methods (injection or infiltration)
3. ✔ Transmission characteristics of the confining layer
4. ✘ Quality of source water available

Question Number : 55 Question Id : 630680219314 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

In which of the following pumps is Compressed air used to move the liquid?

Options :

1. ✘ Reciprocating Pumps
2. ✘ Centrifugal Pumps
3. ✘ Rotary Type Pumps
4. ✔ Pneumatic Pumps

Question Number : 56 Question Id : 630680219315 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

A Mixed flow pump is actually a _____ fitted with a mixed flow impeller?

Options :

1. ✔ Centrifugal Pump
2. ✘ Rotary Type Pump
3. ✘ Vertical Turbine Pump
4. ✘ Reciprocating Pump

Question Number : 57 Question Id : 630680219316 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of pumps are also named as stormwater, sewage, and septic pumps?

Options :

1. ✘ Reciprocating Pumps
2. ✘ Centrifugal Pumps
3. ✔ Submersible Pumps
4. ✘ Gear Pumps

Question Number : 58 Question Id : 630680219317 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the movement of groundwater:

- A. The direction and speed of groundwater movement is determined by the various characteristics of aquifers and confining layers of subsurface rocks.
 B. Groundwater movement depends on the permeability and porosity of the subsurface rock.

Identify the INCORRECT statements.

Options :

1. ✖ Both A and B
2. ✖ Only A
3. ✔ Neither A nor B
4. ✖ Only B

Question Number : 59 Question Id : 630680219318 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Match the following methods of well development with their correct processes:

1. Overpumping	A. A water raising device and a container where water can be held and then readily let to flow back into the well are needed for this very easy development approach.
2. Backwashing	B. The most typical approach to well development is this one. It entails forcing water through the well screen into and out of it.
3. Surging	C. Pumping a well at a rate that is 2-3 times its intended discharge rate over an extended period of time is the easiest but least efficient development technique.

Options :

1. ✖ 1-A, 2-B, 3-C
2. ✔ 1-C, 2-A, 3-B
3. ✖ 1-B, 2-C, 3-A
4. ✖ 1-C, 2-B, 3-A

Question Number : 60 Question Id : 630680219319 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Identify the correct pair about the different types of pumps:

- A. Centrifugal Pumps: Flow and pressure are dynamically generated by a rotating mechanism.
 B. Vertical Pumps: Compressed air is used to move the liquid in these pumps.
 C. Reciprocating Pumps: These pumps displace the liquid either by rotating or by a rotating and orbiting motion.

Options :

1. ✔ Only A
2. ✖ Only B
3. ✖ Both A and C
4. ✖ Only C

Question Number : 61 Question Id : 630680219320 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Arrange the working principle of a mixed flow pump in correct order:

1. This generates enough force to produce a high flow rate.
2. The impeller rotates while it is seated in the pipe, but the rotational mechanism is essentially diagonal, using centrifugal force to move the water while accelerating it further with thrust from the impeller's axial direction.
3. The mixed-flow pump's impeller has a form that falls somewhere between that of a centrifugal pump and that of an axial-flow pump, therefore it operates by using both centrifugal force and lifting force.

Options :

1. ✔ 3, 2, 1
2. ✖ 1, 2, 3

3. ✖ 2, 1, 3

4. ✖ 1, 3, 2

Question Number : 62 Question Id : 630680219321 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following methods for measuring irrigation water is suitable for small streams?

Options :

1. ✖ Measuring Structures (Orifices, Weirs and Flumes)

2. ✖ Tracer Methods

3. ✖ Area – Velocity Method

4. ✔ Volumetric Method

Question Number : 63 Question Id : 630680219322 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a factor affecting the consumptive use of water?

Options :

1. ✔ Moonlight hours

2. ✖ Soil and Topography

3. ✖ Wind velocity

4. ✖ Irrigation practices and methods of irrigation

Question Number : 64 Question Id : 630680219323 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following relations is correct for estimating the volume of earth work by average method?

Options :

1. ✔ Volume = Area * Difference between the average of two sets of levels.

2. ✖ Volume = Area * Sum of the average of two sets of levels.

3. ✖ Volume = Area + Difference between the average of two sets of levels.

4. ✖ Volume = Area / Sum of the average of two sets of levels.

Question Number : 65 Question Id : 630680219324 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

In the concept of crop coefficient (k_c), which of the following crop growth stages is considered to span from planting to 10% ground cover?

Options :

1. ✖ Crop development

2. ✖ Mid-season

3. ✔ Initial period

4. ✖ Late season

Question Number : 66 Question Id : 630680219325 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following methods for estimation of evapotranspiration is Temperature based?

Options :

1. ✖ Pan Evaporation

2. ✖ Penman Monteith

3. ✖ Priestley-Taylor

4. ✓ Thornthwaite

Question Number : 67 Question Id : 630680219326 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about Basin irrigation:

- A. Basin irrigation design is simpler than both furrow or border design since tail water is prevented from the existing field and the slopes are usually very small or zero.
- B. Check basin irrigation is best suited for soils with a moderate to low infiltration rate as well as for gently sloping, uniformly level terrain.
- C. When leaching is necessary to eliminate salts from the soil profile, check basins are helpful.

The CORRECT statements are:

Options :

- 1. ✗ Only A
- 2. ✗ Both B and C
- 3. ✗ Both A and B
- 4. ✓ A, B and C

Question Number : 68 Question Id : 630680219327 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Read the following pairs about Hooghoudt's and Ernst's drain spacing equations' applicability:

- A. Hooghoudt's Equation: Can be applied for a homogeneous soil profile or for a two-layered soil profile provided that the interface between the two layers coincides with the drain level
- B. Ernst's Equation: Can be applied to any type of two-layered soil profile

The INCORRECT pair is/are:

Options :

- 1. ✗ Only A
- 2. ✗ Only B
- 3. ✗ Both A and B
- 4. ✓ Neither A nor B

Question Number : 69 Question Id : 630680219328 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following values of pH to increasing alkalinity in soils.

A-7, B-3, C-14, D-5

Options :

- 1. ✗ $A < B < C < D$
- 2. ✓ $B < D < A < C$
- 3. ✗ $D < C < A < B$
- 4. ✗ $C < B < D < A$

Question Number : 70 Question Id : 630680219329 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following factors does NOT affect the sprinkler system layout?

Options :

- 1. ✗ Topography
- 2. ✗ Field shape
- 3. ✓ Location of the drains

4. ✖ Location of the water source

Question Number : 71 Question Id : 630680219330 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Following formula represents the Application rate in Sprinkler Performance Evaluation:

$$A = KQ/a$$

Here, 'a' represents which of the following parameters?

Options :

1. ✖ Application rate
2. ✖ Sprinkler discharge
3. ✔ Wetted area of sprinkler
4. ✖ Unit constant

Question Number : 72 Question Id : 630680219331 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which type of drip irrigation system use buried plastic tubes, containing embedded emitters located at regular spacings?

Options :

1. ✖ Surface drip
2. ✔ Sub-surface drip
3. ✖ Gravity fed drip
4. ✖ Online drip

Question Number : 73 Question Id : 630680219332 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is the diameter of pipes used for installing online emitters?

Options :

1. ✖ 100 – 200 mm
2. ✔ 12 – 20 mm
3. ✖ 1 – 5 mm
4. ✖ 30 - 40 mm

Question Number : 74 Question Id : 630680219333 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the Family drip or 'gravity fed drip irrigation' system:

- A. It is a low-cost system developed for large family plots.
- B. It is suitable for house gardening and peri-urban agriculture.

Identify the CORRECT statement.

Options :

1. ✖ Only A
2. ✖ Both A and B
3. ✖ Neither A nor B
4. ✔ Only B

Question Number : 75 Question Id : 630680219334 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the hydraulic design of drip irrigation:

- A. Know the operating pressure of emitters.
- B. Find out the allowable head loss in lateral and sub main.
- C. Find out the lateral and sub main discharge.
- D. Find out the diameter and length of the lateral such that the head loss in the lateral is within allowable limits for the given layout. For this purpose find out the head loss by Hazen William or Darcy-Weisbach formula for different combinations of diameter and length and select the suitable combination by trial and error method.

Identify the CORRECT statement/statements:

Options :

1. ✘ Only D
2. ✘ Both A and D
3. ✘ A, B and D
4. ✔ A, B, C and D

Question Number : 76 Question Id : 630680219335 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of erosion is a conceptual or an idealized form of soil erosion which is very difficult to visualize?

Options :

1. ✔ Sheet Erosion
2. ✘ Rill Erosion
3. ✘ Gully Erosion
4. ✘ Raindrop Erosion

Question Number : 77 Question Id : 630680219336 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

The Universal soil loss equation (USLE) is expressed as:

$$A = R * K * L * S * C * P$$

Here, the parameter K represents which of the following?

Options :

1. ✘ Topographic Factor
2. ✔ Soil Erodibility Factor
3. ✘ Rainfall Factor
4. ✘ Crop Management Factor

Question Number : 78 Question Id : 630680219337 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is the recommended top width for Graded Bunds?

Options :

1. ✘ 2 – 5 cm
2. ✘ 100 – 150 cm
3. ✔ 30 - 90 cm
4. ✘ 5 -10 cm

Question Number : 79 Question Id : 630680219338 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of check dams is NOT a Semi-permanent check dam?

Options :

1. ✘ Loose rock dam
2. ✘ Netting dam
3. ✘ Log check dam
4. ✔ Brushwood dams

Question Number : 80 Question Id : 630680219339 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following about Gully erosion:

- A. When rills get larger in size and shape due to prolonged occurrence of flow through them and cannot be removed by tillage operations, these are called gullies.
 B. Large gullies and their networks are called ravines.

Identify the correct statement/statements.

Options :

1. ✔ Both A and B
2. ✘ Only A
3. ✘ Only B
4. ✘ Neither A nor B

Question Number : 81 Question Id : 630680219340 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following parameters used in Universal soil loss equation to their names:

1. C	A. Rainfall Factor
2. P	B. Topographic Factor
3. LS	C. Crop Management Factor
4. R	D. Conservation Practice Factor

Options :

1. ✘ 1-B, 2-C, 3-D, 4-A
2. ✔ 1-C, 2-D, 3-B, 4-A
3. ✘ 1-A, 2-C, 3-B, 4-D
4. ✘ 1-D, 2-C, 3-B, 4-A

Question Number : 82 Question Id : 630680219341 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following stages of Gully erosion:

1. Stage I	A. This is the healing stage, in which vegetation starts to grow in the channel.
2. Stage II	B. In this stage channel erosion and deepening of the gully bed takes place.
3. Stage III	C. This is the last stage of gully development, in which gully is fully stabilized. No further development of gully occurs unless healing process is disturbed.
4. Stage IV	D. It is the development stage, in which due to runoff from upstream portion of the gully head, the size of gully width and depth is enlarged.

Options :

1. ✔ 1-B, 2-D, 3-A, 4-C
2. ✘ 1-B, 2-A, 3-D, 4-C
3. ✘ 1-D, 2-B, 3-A, 4-C
4. ✘ 1-D, 2-B, 3-C, 4-A

Question Number : 83 Question Id : 630680219342 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Identify the correct pair/pairs of the mechanics of wind erosion:

- A. Initiation of Movement: The soil particles are first detached from their place by the impact and cutting action of wind.
- B. Transportation: It occurs when very fine dirt and dust particles are lifted into the atmosphere.
- C. Suspension: Suspension are of three distinct types and occur depending upon size of the soil particles.

Options :

- 1. ✖ Only B
- 2. ✖ Both A and C
- 3. ✔ Only A
- 4. ✖ A, B and C

Question Number : 84 Question Id : 630680219343 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Following is the calculation procedure of KE>25 and EI30 Index method:

- 1. Multiplication of rainfall amounts in each class of intensity to the computed kinetic energy (KE) values.
- 2. All of the values are added together to get total KE of storm.
- 3. The kinetic energy obtained so, is again multiplied by the maximum 30-minute rainfall intensity to determine the rainfall erosivity value.

The correct order for the calculation is:

Options :

- 1. ✖ 1, 3, 2
- 2. ✔ 1, 2, 3
- 3. ✖ 2, 1, 3
- 4. ✖ 3, 2, 1

Question Number : 85 Question Id : 630680219344 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Following are the stages of soil erosion:

- 1. Transport
- 2. Detachment
- 3. Deposition

The chronological order of these three stages are:

Options :

- 1. ✖ 1, 2, 3
- 2. ✔ 2, 1, 3
- 3. ✖ 2, 3, 1
- 4. ✖ 1, 3, 2

Question Number : 86 Question Id : 630680219345 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

For the design of grassed waterways, arrange the type of vegetation covers in the order of increasing flow velocity:

- A. Good Quality Cover
- B. Excellent Quality Cover
- C. Spare Green Cover

Options :

1. ✘ A, B, C
2. ✔ B, A, C
3. ✘ C, A, B
4. ✘ B, C, A

Question Number : 87 Question Id : 630680219346 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of watersheds undergo maximum manipulation for the convenience of human being?

Options :

1. ✘ Agricultural
2. ✔ Urban
3. ✘ Desert
4. ✘ Mountainous

Question Number : 88 Question Id : 630680219347 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following factors DO NOT affect watershed management?

Options :

1. ✘ Size and shape
2. ✘ Topography
3. ✔ Longitudes
4. ✘ Relief

Question Number : 89 Question Id : 630680219348 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

In the water budget equation $P = I + ET + R$, 'R' represents:

Options :

1. ✘ Rainfall
2. ✘ Infiltration
3. ✘ Root zone storage
4. ✔ Runoff

Question Number : 90 Question Id : 630680219349 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of mulches are used to improve infiltration and storage of rainwater in soils by digging narrow trenches across the slope?

Options :

1. ✔ Vertical mulch
2. ✘ Soil mulch
3. ✘ Plastic mulch
4. ✘ Straw mulch

Question Number : 91 Question Id : 630680219350 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT an objective of watershed management programme?

Options :

1. ✘ To mitigate the adverse effects of drought on crops and livestock
2. ✘ To encourage restoration of ecological balance

3. ✓ To control deforestation
4. ✗ To promote economic development of village community

Question Number : 92 Question Id : 630680219351 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about watershed characteristics:

- A. Circularity Ratio: The ratio of basin area to the area of a circle having the same perimeter as the basin.
- B. Form Factor: The area of the basin divided by the square of axial length of the basin.

Identify the INCORRECT statement/statements:

Options :

1. ✗ Only A
2. ✗ Only B
3. ✗ Both A and B
4. ✓ Neither A nor B

Question Number : 93 Question Id : 630680219352 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the statements about watershed management and planning:

- A. The planning process has no beginning and no certain end.
- B. Regardless of how watershed related problems and opportunities are recognized, their articulation becomes one of the first steps in watershed planning.
- C. The next stage in the watershed planning process involves establishing objectives and identifying constraints in developing strategies to solve the problems or to take advantage of the opportunities.

Identify the CORRECT statement/statements:

Options :

1. ✗ Only A
2. ✗ Both A and B
3. ✗ Only C
4. ✓ A, B and C

Question Number : 94 Question Id : 630680219353 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the correct parameters of the water-budget equation with their correct terms:

1. P	A. Evapotranspiration
2. ET	B. Runoff
3. R	C. Infiltration
4. I	D. Rainfall

Options :

1. ✓ 1-D, 2-A, 3-B, 4-C
2. ✗ 1-A, 2-B, 3-C, 4-D
3. ✗ 1-B, 2-C, 3-A, 4-D
4. ✗ 1-C, 2-D, 3-B, 4-A

Question Number : 95 Question Id : 630680219354 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is not used for watershed prioritization?

Options :

1. ✓ Contour bunding
2. ✗ Soil and land use surveys
3. ✗ Sediment observations
4. ✗ Remote Sensing methods

Question Number : 96 Question Id : 630680219355 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of rainwater harvesting CANNOT be used in Urban areas?

Options :

1. ✗ Recharge Pit
2. ✗ Recharge Well
3. ✓ Gully Plug
4. ✗ Tubewell

Question Number : 97 Question Id : 630680219356 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following components of drop inlet spillways are provided on the conduit pipe and are constructed using concrete masonry?

Options :

1. ✗ Pitching
2. ✗ Emergency Spillway
3. ✗ Filters
4. ✓ Anti-seep Collars

Question Number : 98 Question Id : 630680219357 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following components of a drop spillway acts as a front wall against runoff flow in the drop spillway?

Options :

1. ✗ Wing Wall
2. ✗ Cut-off Wall
3. ✗ Toe Wall
4. ✓ Head Wall

Question Number : 99 Question Id : 630680219358 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following components of drop inlet spillway is used if the runoff exceeds the design runoff?

Options :

1. ✗ Stone Pitching
2. ✓ Emergency Spillway
3. ✗ Cradle to the Conduit
4. ✗ Filters

Question Number : 100 Question Id : 630680219359 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements:

A. Percolation ponds are small ponds formed in low lying areas in order to store the excess rainwater and to allow it to percolate downwards and sideways.

B. Deep ponds are preferred since evaporation of the stored water therein will be less.

Identify the INCORRECT statement/statements.

Options :

1. ✖ Only A
2. ✖ Only B
3. ✔ Neither A nor B
4. ✖ Both A and B

Question Number : 101 Question Id : 630680219360 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements:

A. There is considerable danger of undermining due to rodents. For which, additional precautions are required.

B. In poorly drained areas, there is problem of seepage.

C. This spillway can also be constructed in combination of check dams and other detention type structures.

Which of the above are the limitations of chute spillways?

Options :

1. ✔ Both A and B
2. ✖ A, B and C
3. ✖ Only A
4. ✖ Only B

Question Number : 102 Question Id : 630680219361 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following class of dam is not based on its purpose?

Options :

1. ✖ Irrigation dams
2. ✔ Gravity dams
3. ✖ Power dams
4. ✖ Flood control dams

Question Number : 103 Question Id : 630680219362 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a component of the steering system?

Options :

1. ✖ Steering Wheel
2. ✖ Steering Shaft
3. ✖ Steering Gear
4. ✔ Queen Pin

Question Number : 104 Question Id : 630680219363 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following power outlets is provided with PTO shaft in some tractors through which rotary power output can be tapped for operating stationery machines?

Options :

1. ✔ Pulley
2. ✖ Three point linkage

3. ✖ Hook
4. ✖ Drawbar

Question Number : 105 Question Id : 630680219364 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a type of hitch system for a tractor?

Options :

1. ✖ Trailed on its own wheels
2. ✖ Semi-mounted on the lower links of the tractor supported by a rear wheel
3. ✔ Semi-mounted on the upper links of the tractor
4. ✖ Fully mounted on the three-point linkage

Question Number : 106 Question Id : 630680219365 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following tests is not a compulsory test for OECD (Organization for Economic Cooperation and Development) approval?

Options :

1. ✔ Engine test
2. ✖ Main power take-off test
3. ✖ Hydraulic power test
4. ✖ Drawbar power test

Question Number : 107 Question Id : 630680219366 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements:

- A. Differential unit is a special arrangement of gears to permit one of the rear wheels of the tractor to rotate slower or faster than the other.
- B. Tractor is a self-propelled machine used either for pulling or pushing and stationary work.

Identify the INCORRECT statement/statements.

Options :

1. ✖ Only A
2. ✖ Only B
3. ✖ Both A and B
4. ✔ Neither A nor B

Question Number : 108 Question Id : 630680219367 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following about the PTO standards of tractors:

- A. Power to the PTO shaft comes from the gear box.
- B. The counter shaft of the gear box is usually extended out to the rear side to act as the PTO outlet.
- C. The power outlet is known as Power Take Off (PTO).

Identify the CORRECT statement/statements.

Options :

1. ✖ Both A and B
2. ✖ Both B and C
3. ✖ Both A and C
4. ✔ A, B and C

Question Number : 109 Question Id : 630680219368 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following surfaces with tractor tyre tread forms:

1. Hard surfaces such as roads	A. Deep tread
2. Soft, wet agricultural soils	B. Large area, shallow tread with 'high' pressure
3. Normal agricultural work, dry soil	C. Tracks, as on a "crawler" tractor
4. Dry soil, heavy loads as in earth moving	D. Heavy, intermediate depth tread

Options :

1. ✓ 1-B, 2-A, 3-D, 4-C
2. ✗ 1-A, 2-C, 3-B, 4-D
3. ✗ 1-C, 2-B, 3-A, 4-D
4. ✗ 1-B, 2-D, 3-A, 4-C

Question Number : 110 Question Id : 630680219369 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Identify the CORRECT share of tractor weight in different parts of a tractor:

- A. Front axle : 30 percent
- B. Rear Axle : 50 percent

Options :

1. ✓ Only A
2. ✗ Only B
3. ✗ Both A and B
4. ✗ Neither A nor B

Question Number : 111 Question Id : 630680219370 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

As the tractor tyre pressure decreases, the traction _____.

Options :

1. ✗ decreases
2. ✓ increases
3. ✗ doesn't change
4. ✗ becomes zero due to tyre crack

Question Number : 112 Question Id : 630680219371 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following statements about the working of a mechanical steering (Ackerman type) in correct sequence:

1. The steering gear changes the direction of motion and increase the turning force applied by driver of the steering wheel in accordance with gear ratio.
2. When driver turns the steering wheel, motion is transmitted down through the steering tube to the steering gear.
3. The steering tube revolves inside the steering column.
4. The gear rotates the steering arm (pitman arm) which transfers the motion to the steering knuckles through the steering gear connecting rod, tie-rod and knuckle arms.

Options :

1. ✗ 1, 2, 3, 4
2. ✗ 4, 3, 2, 1
3. ✓ 2, 3, 1, 4
4. ✗ 2, 1, 4, 3

Question Number : 113 Question Id : 630680219372 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following sources of farm power is the most important in developing countries?

Options :

1. ✘ Human power
2. ✔ Animal power
3. ✘ Wind power
4. ✘ Mechanical power

Question Number : 114 Question Id : 630680219373 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

The Mould Board plough uses which method or action for moving the earth after cutting?

Options :

1. ✔ Lifting and Rolling Action
2. ✘ Pushing Action
3. ✘ Carrying Action
4. ✘ Throwing Action

Question Number : 115 Question Id : 630680219374 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a function of seed drill?

Options :

1. ✘ Carrying of seed in hopper
2. ✘ Metering the seed
3. ✘ Compacting of soil around the seeds by press wheel
4. ✔ Placing the seed on the ground surface

Question Number : 116 Question Id : 630680219375 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a metallic material used for the construction of farm machines?

Options :

1. ✘ Iron
2. ✘ Steel
3. ✔ Teflon
4. ✘ Copper

Question Number : 117 Question Id : 630680219376 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements:

- A. Centrifugal fertilizer broadcasters are similar to centrifugal seeders in that the material is metered from a hopper and distributed laterally by one or two horizontally rotating, ribbed disks
- B. Aircraft fertilization is most likely to be employed where large areas are involved and/or where it is impractical to do the job with ground equipment

Identify the INCORRECT statement/statements about fertilizer application equipments.

Options :

1. ✘ Both A and B
2. ✘ Only A

3. ✓ Neither A nor B

4. ✗ Only B

Question Number : 118 Question Id : 630680219377 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements:

- A. A reaper may be classified as animal-drawn reaper, animal-drawn engine operated reaper, tractor rear mounted PTO operated reaper, power tiller operated or tractor front mounted vertical conveyer type reapers and tractor mounted reaper binder.
- B. A machine called vertical conveyor reaper-cum-windrower can cut the crop and lay it in the form of windrow for easy picking.
- C. A front mounted vertical conveyor reaper is the most common reaper, to harvest wheat and paddy crops.

Identify the INCORRECT statement/statements about reapers.

Options :

1. ✗ Both A and B

2. ✗ A, B and C

3. ✗ Only C

4. ✓ None of the other options

Question Number : 119 Question Id : 630680219378 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Cotton pickers perform best when cotton plants are of:

Options :

1. ✓ Medium size

2. ✗ Large size

3. ✗ Small size

4. ✗ Uniform size

Question Number : 120 Question Id : 630680219379 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of sorting is more accurate than other methods?

Options :

1. ✗ Shape sorting

2. ✗ Size sorting

3. ✓ Weight sorting

4. ✗ Colour sorting

Question Number : 121 Question Id : 630680219380 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which types of conveying systems are ideal if sensitive or fragile products are to be moved?

Options :

1. ✗ Medium Phase

2. ✓ Dense Phase

3. ✗ Lean Phase

4. ✗ Dilute Phase

Question Number : 122 Question Id : 630680219381 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following factors does NOT influence the rate of drying?

Options :

1. ✖ Fat content of the food
2. ✖ Method of preparation of food
3. ✔ Sugar content of the food
4. ✖ Amount of food placed in dryer

Question Number : 123 Question Id : 630680219382 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of drying is used for foods which lose their colour when exposed to direct sunlight for drying?

Options :

1. ✖ Oven drying
2. ✔ Shade drying
3. ✖ Solar drying
4. ✖ Kiln drying

Question Number : 124 Question Id : 630680219383 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

In which of the following rice milling processes is the husk from rice grains removed?

Options :

1. ✖ Cleaning
2. ✖ Separation
3. ✔ De-husking
4. ✖ Polishing

Question Number : 125 Question Id : 630680219384 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about oil extraction:

- A. Solvent extraction is capable of removing nearly all of the available oil from oilseed meal.
- B. Solvent extraction plant use hexane as a solvent to extract oil from oilseed cake.

Identify the CORRECT statement/statements.

Options :

1. ✖ Only A
2. ✖ Only B
3. ✔ Both A and B
4. ✖ Neither A nor B

Question Number : 126 Question Id : 630680219385 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the solvent extraction of oil:

- A. Solvent extraction refers to preferential dissolution of oil by contacting oilseeds with a liquid solvent.
- B. This is the most inefficient technique to recover oil from oilseeds.
- C. The choice of solvent type is based on solubility of oil in the selected solvent, cost and safety.

Identify the CORRECT statement/statements.

Options :

1. ✖ Both A and B
2. ✖ Both A and C
3. ✖ Only A

4. ✓ A, B and C

Question Number : 127 Question Id : 630680219386 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0 Correct Marks : 2 Wrong Marks : 0

Choose the correct pair on extrusion cooking:

- A. Extrusion cooking: it has both beneficial and undesirable effects on nutritional value.
- B. Starch: Doesn't have important role in extrusion cooking.

Identify the correct pair/pairs.

Options :

- 1. ✗ Both A and B
- 2. ✓ Only A
- 3. ✗ Only B
- 4. ✗ Neither A nor B

Question Number : 128 Question Id : 630680219387 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0 Correct Marks : 2 Wrong Marks : 0

Arrange the type of wheat in decreasing order of tempering hours:

- 1. Durum wheat
- 2. Soft wheat
- 3. Hard red winter wheat
- 4. Hard spring wheat

Options :

- 1. ✓ $4 > 3 > 2 > 1$
- 2. ✗ $1 > 3 > 2 > 4$
- 3. ✗ $3 > 4 > 1 > 2$
- 4. ✗ $1 > 2 > 3 > 4$

Question Number : 129 Question Id : 630680219388 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Which chemical method of food preservation involves the use of sugar to lower water activity in food?

Options :

- 1. ✗ Canning
- 2. ✗ Pasteurization
- 3. ✓ Osmotic preservation
- 4. ✗ Irradiation

Question Number : 130 Question Id : 630680219389 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Which of the following packages are NOT used for packaging ice-creams?

Options :

- 1. ✗ Aluminium foil cartons
- 2. ✓ Vegetable parchment
- 3. ✗ Cylindrical containers
- 4. ✗ Plastic containers

Question Number : 131 Question Id : 630680219390 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0

Which of the following types of milk plants should be situated as close as possible to the consumer area?

Options :

1. ✓ Local Milk Plant
2. ✗ Product Milk Plant
3. ✗ Small Capacity Milk Plant
4. ✗ Medium Capacity Milk Plants

Question Number : 132 Question Id : 630680219391 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of drying includes spray drying, tray drying, fluidized bed drying?

Options :

1. ✗ Microwave drying
2. ✗ Osmotic drying
3. ✓ Hot air drying
4. ✗ Freeze drying

Question Number : 133 Question Id : 630680219392 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about Nano filtration membranes:

- A. A nanofiltration filter has a pore size around 0.001 micron.
- B. Nanofiltration removes divalent ions, which make water hard, so nanofiltration is often used to soften hard water.

Identify the INCORRECT statement/statements:

Options :

1. ✗ Only A
2. ✗ Only B
3. ✗ Both A and B
4. ✓ Neither A nor B

Question Number : 134 Question Id : 630680219393 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the procedural steps for formation of butter in correct order:

- A. Formation of a stable emulsion.
- B. Destabilisation and breakdown of the fat and water emulsion.
- C. Preparation of the cream.
- D. Aggregation and concentration of the fat particles.

Options :

1. ✗ C, D, B, A
2. ✗ D, B, A, C
3. ✓ C, B, D, A
4. ✗ D, C, B, A

Question Number : 135 Question Id : 630680219394 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following milk plants with their correct descriptions:

1. Product Milk Plant	A. Very limited local sales of liquid milk could be possible, as these are essentially located in small towns.
2. Medium Capacity Milk Plants	B. Each room should be planned separately and arranged with forward flow of product as per requirement.
3. Small capacity milk plants	C. Produces cheese, butter, ice-creams, etc. which do not require daily distribution to the consumers.

Options :

1. ✓ 1-C, 2-B, 3-A
2. ✗ 1-A, 2-B, 3-C
3. ✗ 1-C, 2-A, 3-B
4. ✗ 1-B, 2-C, 3-A

Question Number : 136 Question Id : 630680219395 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following types of renewable energies utilizes the accessible thermal energy from the Earth's interior?

Options :

1. ✗ Hydropower energy
2. ✗ Solar energy
3. ✓ Geothermal energy
4. ✗ Ocean energy

Question Number : 137 Question Id : 630680219396 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a type of solar dryer?

Options :

1. ✗ Natural convection dryer
2. ✓ Artificial convection dryer
3. ✗ Forced convection dryer
4. ✗ Tunnel dryers

Question Number : 138 Question Id : 630680219397 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Wind turbines cannot be installed in which of the following areas?

Options :

1. ✗ Coastal area
2. ✗ Farm area
3. ✗ Hilly area
4. ✓ Bird sanctuary

Question Number : 139 Question Id : 630680219398 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which two types of rotors are used on the same shaft of a simple hybrid wind turbine?

Options :

1. ✗ Resistance and lift type rotors
2. ✗ High speed and low speed rotors
3. ✓ Vertical and horizontal axis rotors

4. ✖ Active and passive rotors

Question Number : 140 Question Id : 630680219399 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is the oldest and simplest type of gasifier?

Options :

1. ✔ Counter current gasifier
2. ✖ Co-current gasifiers
3. ✖ Cross-draught gasifier
4. ✖ Fluidized bed gasifier

Question Number : 141 Question Id : 630680219400 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about the solar dish collectors:

- A. Solar collector that optically reflects and focuses the incident solar energy onto a small receiving area using mirrors or lenses is called a Solar Dish Collector.
- B. The concentration factor of a solar dish collector can be greater than 1,000 suns reaching several thousand degrees Celsius temperature at the focal point of the receiver.

Identify the CORRECT statement/statements.

Options :

1. ✔ Both A and B
2. ✖ Only B
3. ✖ Only A
4. ✖ Neither A nor B

Question Number : 142 Question Id : 630680219401 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about Photovoltaic cells:

- A. The generation of electric current does not happen inside the depletion zone of the PN junction.
- B. When a photon of light is absorbed by one of these atoms in the N-Type silicon it will dislodge an electron, creating a free electron and a hole.

Which of the following statements/statement are/is CORRECT?

Options :

1. ✖ Only A
2. ✔ Only B
3. ✖ Both A and B
4. ✖ Neither A nor B

Question Number : 143 Question Id : 630680219402 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Read the following statements about wind energy conversion:

- A. Wind turbines work on a simple principle: instead of using electricity to make wind, like a fan, wind turbines use wind to make electricity.
- B. Wind turns the propeller-like blades of a turbine around a rotor, which spins a generator, which creates electricity.
- C. A wind turbine turns wind energy into electricity using the aerodynamic force from the rotor blades, which work like an airplane wing or helicopter rotor blade.

Identify the CORRECT statement/statements.

Options :

1. ✖ Only A
2. ✖ Both B and C
3. ✔ A, B and C
4. ✖ Only C

Question Number : 144 Question Id : 630680219403 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Match the following types of windmill rotors with their correct descriptions:

1. Horizontal axis wind turbines	A. The wind reaches the rotors before the mast.
2. Up-wind turbines	B. Turbines that require being aligned with the wind direction.
3. Down-wind turbines	C. The wind strikes the mast before it reaches the blades.

Options :

1. ✔ 1-B, 2-A, 3-C
2. ✖ 1-A, 2-B, 3-C
3. ✖ 1-B, 2-C, 3-A
4. ✖ 1-A, 2-C, 3-B

Question Number : 145 Question Id : 630680219404 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Which of the following is the CORRECT pair for gasifier names?

- A. Co-current gasifiers : Downdraught gasifiers
- B. Counter current gasifiers : Updraught gasifiers

Options :

1. ✖ Only A
2. ✖ Only B
3. ✔ Both A and B
4. ✖ Neither A nor B

Question Number : 146 Question Id : 630680219405 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Match the following.

1. S-curve	(a) Cumulative rainfall vs time
2. Hydrograph	(b) Intensity vs time
3. Hyetograph	(c) Discharge vs Time
4. Mass Curve	(d) Infinite time

Options :

1. ✖ 1-(a), 2-(b), 3-(c), 4-(d)
2. ✖ 1-(b), 2-(a), 3-(d), 4-(c)
3. ✔ 1-(d), 2-(c), 3-(b), 4-(a)
4. ✖ 1-(c), 2-(d), 3-(a), 4-(b)

Question Number : 147 Question Id : 630680219406 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Negative Marks Display Text : 0.0

Correct Marks : 2 Wrong Marks : 0

Match the following.

1. Archimedean screw	(a) Low discharge
2. Chain pump	(b) Low head
3. Rope and bucket lift	(c) Medium head
4. Reciprocating pump	(d) High head

Options :

1. ✖ 1-(a), 2-(b), 3-(c), 4-(d)
2. ✖ 1-(d), 2-(c), 3-(b), 4-(a)
3. ✖ 1-(a), 2-(d), 3-(b), 4-(c)
4. ✔ 1-(d), 2-(a), 3-(b), 4-(c)

Question Number : 148 Question Id : 630680219407 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following water filtration processes in the decreasing order of filter pore size.

1. Ultra-filtration
2. Micro-filtration
3. Nano-filtration

Options :

1. ✖ 2 > 3 > 1
2. ✔ 2 > 1 > 3
3. ✖ 3 > 1 > 2
4. ✖ 1 > 2 > 3

Question Number : 149 Question Id : 630680219408 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Arrange the following milk varieties in the increasing order of fat percentage.

1. Low fat milk
2. Skim milk
3. Whole milk

Options :

1. ✔ 2 < 1 < 3
2. ✖ 3 < 1 < 2
3. ✖ 1 < 2 < 3
4. ✖ 1 < 3 < 2

Question Number : 150 Question Id : 630680219409 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0

Chronologically arrange the following stages of water-induced soil erosion.

- A. Rill erosion
- B. Sheet erosion
- C. Gully erosion
- D. Splash erosion

Options :

1. ✖ B, D, A, C
2. ✔ D, B, A, C
3. ✖ D, A, B, C
4. ✖ D, B, C, A