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Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	PC22162 CIVIL ENGINEERING AE2216 19th Oct 23 S2
Subject Name :	PC22162 CIVIL ENGINEERING AE2216
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

CIVIL ENGINEERING

Section type :	Online
Section Negative Marks :	0
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 1 Question Id : 630680408764 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement(s) is/are true or false related to the Geodetic surveying?

S1: The type of surveying in which the shape of the earth is taken into account.

S2: All lines lying in the surface are curved lines and the triangles are spherical triangles.

S3: All geodetic surveys include work of smaller magnitude and low degree of precision.

Options :

1. ✔ S1, S2 are true and S3 is false

2. ✖ S1, S3 are true and S2 is false

3. ✖ Only S2 is true

4. ✖ S1, S2 and S3 are true

Hints :
Civil_Set 2A

Question Number : 2 Question Id : 630680408765 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

In compass, if the whole circle bearing is $211°54'$, then the quadrantal bearing is:

Options :

1. ✖ $N\ 31°\ 54'\ W$

2. ✔ $S\ 31°\ 54'\ W$

3. ✖ $N\ 31°\ 54'\ E$

4. ✖ $S\ 31°\ 54'\ E$

Hints :
Civil_Set 2A

Question Number : 3 Question Id : 630680408766 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma

Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following weirs is classified according to shape of the opening?

Options :

1. ✔ Cipolletti weir

2. ✘ Sharp crested weir

3. ✘ Ogee shaped weir

4. ✘ Broad crested weir

Hints :
Civil_Set 2A

Question Number : 4 Question Id : 630680408767 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following temporary adjustments of theodolite in chronological order:

A. Levelling up

B. Setting over the station

C. Elimination parallax

Options :

1. ✘ A, B, C

2. ✘ C, B, A

3. ✘ A, C, B

4. ✔ B, A, C

Hints :
Civil_Set 2A

Question Number : 5 Question Id : 630680408768 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD

Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following pairs regarding the parameters which are measured by total station.

A. Vertical angle: The rotation of the instrument's optical axis from the instrument north in a horizontal plane

B. Horizontal angle: The inclination of the optical axis from the local vertical

C. Slope distance: The distance between the instrument and the target

Choose the correct pair:

Options :

1. ✔ Only C

2. ✘ Both A and B

3. ✘ Both B and C

4. ✘ Only A

Hints :
Civil_Set 2A

Question Number : 6 Question Id : 630680408769 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following stages of an idealized remote sensing system in chronological order:

A. Propagation of energy through atmosphere

B. Energy interaction with earth's surface features

C. Energy source

D. Multiple-data users

E. Transmission of data to earth station and generation of data produce

F. Airborne/space borne sensors receiving the reflected and emitted energy

Options :

1. ✘ A, B, C, D, E, F

2. ✖ C, B, A, E, F, D

3. ✖ A, C, B, F, D, E

4. ✔ C, A, B, F, E, D

Hints :
Civil_Set 2A

Question Number : 7 Question Id : 630680408770 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

If both the permeable and impermeable voids are excluded to determine the true volume of solids, the specific gravity is called:

Options :

1. ✖ Mass specific gravity

2. ✔ Absolute specific gravity

3. ✖ Apparent specific gravity

4. ✖ Specific weight

Hints :
Civil_Set 2A

Question Number : 8 Question Id : 630680408771 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Read the following statements regarding the Dressing of stone.

A. Dressing of stone provides pleasing appearance, proper bedding with good mortar joints, special shapes for arches, copings, pillars, etc.

B. Dressing of stones is done immediately after quarrying and before seasoning to achieve less weight for transportation.

Choose the appropriate option:

Options :

1. ✖ A is true and B is false

2. ✖ A is false and B is true

3. ✔ Both A and B are true

4. ✖ Both A and B are false

Hints :
Civil_Set 2A

Question Number : 9 Question Id : 630680408772 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement(s) is/are true or false related to the Electrical moisture meter method of timber?

S1: Electrical moisture meter method is a direct, quick, convenient and non-destructive means of determining moisture content of timber and its products.

S2: The test is of special value in field inspections and preferred for checking the moisture content of finished timber products.

S3: Because of the rapid measurements, and there is loss of material by this method, more extensive checking is possible than permitted by the oven-drying method.

Options :

1. ✔ S1, S2 are true and S3 is false

2. ✖ S1, S3 are true and S2 is false

3. ✖ Only S2 is true

4. ✖ S1, S2 and S3 are true

Hints :
Civil_Set 2A

Question Number : 10 Question Id : 630680408773 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

What is the formula to determine the heat of solution of hydrated cement (Cal/g ignited weight) ?

Where, φ_0 = room temperature in °C, φ = final temperature in °C

Options :

1. ✖ $\text{Heat of solution of hydrated cement} = \dfrac{\text{Heat capacity x corrected temperature rise}}{\text{Weight of sample corrected for ignition loss}} - 0.2(\varphi_0 - \varphi)$

2. ✖ $\text{Heat of solution of hydrated cement} = \dfrac{\text{Weight of sample corrected for ignition loss}}{\text{Heat capacity x corrected temperature rise}} - 0.2(\varphi_0 - \varphi)$

3. ✔ $\text{Heat of solution of hydrated cement} = \dfrac{\text{Heat capacity x corrected temperature rise}}{\text{Weight of sample corrected for ignition loss}} - 0.4(\varphi_0 - \varphi)$

4. ✖ $\text{Heat of solution of hydrated cement} = \dfrac{\text{Weight of sample corrected for ignition loss}}{\text{Heat capacity x corrected temperature rise}} - 0.4(\varphi_0 - \varphi)$

Hints :

Civil_Set 2A

Question Number : 11 Question Id : 630680408774 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

_____ is due to the imperfect opacity of the paint film even after the final coat.

Options :

1. ✖ Mildew

2. ✖ Bloom

3. ✖ Flashing

4. ✔ Grinning

Hints :
Civil_Set 2A

Question Number : 12 Question Id : 630680408775 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Read the following:

Distempers are applied in the following manner:

1. A priming coat as recommended by the manufacturer is applied on the prepared surface.

2. Two or three coats of distemper are applied. Each coat should be applied only after the previous coat has dried.

3. Preparation of surface.

Arrange the operation in correct order

Options :

1. ✔ 3 – 1 – 2

2. ✖ 2 – 1 – 3

3. ✖ 1 – 3 – 2

4. ✖ 2 – 3 – 1

Hints :
Civil_Set 2A

Question Number : 13 Question Id : 630680408776 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Following the National building code of India 2016, the classification of buildings according to occupancy, Match List-I (Groups) with List-II (Buildings) and select the correct answer using the codes given below the lists:

List-I (Groups)	List-II (Buildings)
A. Group-C	1.Industrial buildings
B. Group-B	2.Educational buildings
C. Group-F	3.Institutional buildings
D. Group-G	4.Mercantile buildings

Options :

1. ✖ A-1, B-2, C-3, D-4

2. ✔ A-3, B-2, C-4, D-1

3. ✖ A-1, B-3, C-4, D-2

4. ✖ A-2, B-1, C-3, D-4

Hints :
Civil_Set 2A

Question Number : 14 Question Id : 630680408777 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement related to the general principles which should be observed for a sound brick masonry construction is INCORRECT?

Options :

1. ✖ The bricks should be thoroughly soaked in clear water before use for suitable period so that the water just penetrates the full depth of bricks

2. ✖ All the joints should be properly flushed and filled with mortar so that no cavity is left in between

3. ✔ Brick-bats should be used in the work except when it is absolutely necessary for obtaining the specified bond

4. ✖ In case of walls two brick or more in thickness, the joints should be grouted at every course in addition to bedding and flushing with mortar

Hints :
Civil_Set 2A

Question Number : 15 Question Id : 630680408778 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following is not an essential requirement of a ground floor?

Options :

1. ✔ Its maintenance cost should be high

2. ✘ It should be impervious and damp-proof

3. ✘ The upper floors should be strong enough to support loads without undergoing large deflection

4. ✘ It should have a level surface

Hints :

Civil_Set 2A

Question Number : 16 Question Id : 630680408779 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following is not a type of straight stairs?

Options :

1. ✘ Parallel stairs

2. ✘ Angle stairs

3. ✘ Scissors stairs

4. ✔ Bifurcated stairs

Hints :

Civil_Set 2A

Question Number : 17 Question Id : 630680408780 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Read the following statements related to the law of parallelogram of forces.

A. Law of parallelogram of forces is used to determine the resultant of two forces acting at a point in a plane.

B. Law states that "If two forces, acting at a point be represented in magnitude and direction by the two adjacent sides of a parallelogram, then their resultant is represented in magnitude and direction by the diagonal of the parallelogram passing through that point".

Choose the appropriate option:

Options :

1. ✖ A is true and B is false

2. ✖ A is false and B is true

3. ✔ Both A and B are true

4. ✖ Both A and B are false

Hints :

Civil_Set 2A

Question Number : 18 Question Id : 630680408781 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The above figure shows that shows three forces F1, F2 and F3 acting in a plane and these forces intersect or meet at a common point O. This system of forces is known as:

Options :

1. ✓ Concurrent coplanar forces

2. ✗ Coplanar parallel forces

3. ✗ Coplanar non-concurrent non-parallel forces

4. ✗ Coplanar collinear forces

Hints :
Civil_Set 2A

Question Number : 19 Question Id : 630680408782 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement(s) is/are true or false related to the Coplanar non-concurrent non-parallel forces?

S1: Four forces F1, F2, F3, F4 are acting in a plane, the lines of action of these forces lie in the same plane but they are neither parallel nor meet or intersect at a common point.

S2: The force system is also known as general system of forces.

S3: The below figure shows Coplanar non-concurrent non-parallel forces.

Options :

1. ✗ S1, S2 are true and S3 is false

2. ✗ S1, S3 are true and S2 is false

3. ✗ Only S2 is true
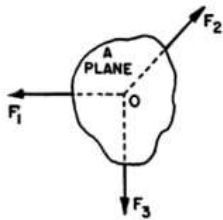
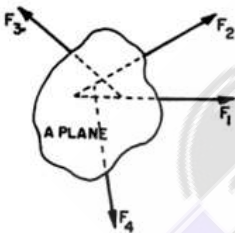4. ✓ S1, S2 and S3 are true

Hints :
Civil_Set 2A

Question Number : 20 Question Id : 630680408783 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pair/s from the following:

1. Polar moment of inertia – product of the area (or mass) and the square of the distance of the centre of gravity of the area (or mass) from an axis.

2. Moment of inertia of the area about that axis – product of the area (or mass) and the square of the distance of the centre of gravity of the area (or mass) from an axis perpendicular to the plane of the area.

3. Radius of gyration of a body about an axis – A distance such that its square multiplied by the area gives moment of inertia of the area about the given axis.

Options :

1. ✖ Only 2

2. ✔ Only 3

3. ✖ Both 1 and 2

4. ✖ Both 2 and 3

Hints :
Civil_Set 2A

Question Number : 21 Question Id : 630680408784 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The moment of inertia of the rectangular section shown in figure about the horizontal axis DC passing through base is given by

Where, b= width of rectangular section

d= depth of rectangular section

Options :

1. ✔ $\dfrac{bd^3}{3}$

2. ✖ $\dfrac{bd^3}{10}$

3. ✖ $\dfrac{bd^3}{12}$

4. ✖ $\dfrac{bd^3}{36}$

Hints :
Civil_Set 2A

Question Number : 22 Question Id : 630680408785 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the point 'P' on stress-strain curve for mild steel.

Options :

1. ✔ Ultimate stress point

2. ✘ Upper yield point

3. ✘ Lower yield point

4. ✘ Elastic limit

Hints :
Civil_Set 2A

Question Number : 23 Question Id : 630680408786 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
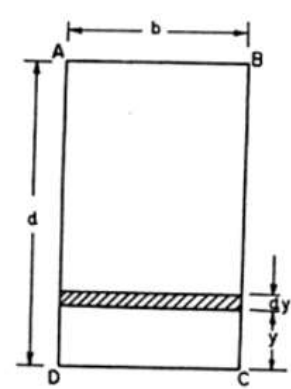**Correct Marks : 1 Wrong Marks : 0**
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

A beam AB of length L simply supported at the ends A and B and carrying a uniformly varying load from zero at end A to 'w' per unit length at B. the reaction at A is:

Options :

1. ✘ wL

2. ✘ $\dfrac{wL}{2}$

3. ✔ $\dfrac{wL}{6}$
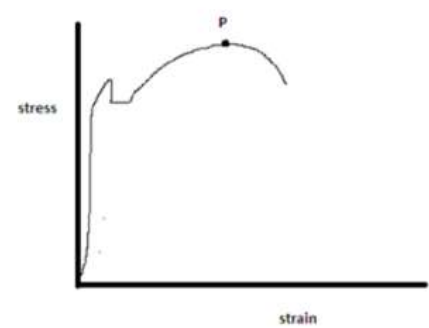
4. ✘ $\dfrac{wL}{8}$

Hints :
Civil_Set 2A

Question Number : 24 Question Id : 630680408787 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

What is the expression for modulus of resilience?

Where σ = stress induced in the body, E = young's modulus, V= volume of the body

Options :

1. ✖ $\text{Modulus of resilience} = \dfrac{\sigma^2}{2E} \cdot V$

2. ✖ $\text{Modulus of resilience} = \dfrac{\sigma^2}{E} \cdot V$

3. ✔ $\text{Modulus of resilience} = \dfrac{\sigma^2}{2E}$

4. ✖ $\text{Modulus of resilience} = \dfrac{\sigma^2}{E}$

Hints :

Civil_Set 2A

Question Number : 25 Question Id : 630680408788 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match List-I (Elastic constants) with List-II (definitions) and select the correct answer using the codes given below the lists :

List-I (Elastic constants)	List-II (definitions)
A. Volumetric strain	1. The ratio of decrease in length to the original length of the body, when it is subjected to a certain magnitude of axial force
B. Compressive strain	2. Ratio of increase in length to original length
C. Tensile strain	3. The ratio of change in volume to the original volume of a body (when the body is subjected to a single force or a system of forces)

Options :

1. ✖ A-1, B-2, C-3

2. ✔ A-3, B-1, C-2

3. ✖ A-1, B-3, C-2

4. ✖ A-2, B-1, C-3

Hints :
Civil_Set 2A

Question Number : 26 Question Id : 630680408789 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1 to S3) pertain to Poisson's ratio, when a material is stressed within its elastic limit.

S1 : Poisson's ratio for rubber varies 0.45 to 0.50

S2 : Poisson ratio being the ratio of longitudinal strain to lateral strain is a constant for a given material, when the material is stressed within the elastic limit.

S3 : The lateral strain is opposite in sign to longitudinal strain

Which of the statement(s) is/are correct ?
Options :

1. ✖ S1 and S2

2. ✖ S1 only

3. ✖ S2 and S3

4. ✔ S1 and S3

Hints :
Civil_Set 2A

Question Number : 27 Question Id : 630680408790 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following materials in the increasing order of their modulus of elasticity values. (Use codes for answering)

A. Cast iron

B. Steel

C. Aluminium

Options :

1. ✖ B, A, C

2. ✖ A, C, B

3. ✔ C, A, B

4. ✖ C, B, A

Hints :
Civil_Set 2A

Question Number : 28 Question Id : 630680408791 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000

SOW No	PROJECT_NoW_0000

Match the following:

Types of chain	Unit
1. 10 Gunter's chains	A. 1 furlong
1. 80 Gunter's chains	B. 1 acre
2. 10 square Gunter's chains	C. 1 mile

Choose the correct answer:

Options :

1. ✖ 1-A, 2-B, 3-C

2. ✖ 1-B, 2-C, 3-A

3. ✔ 1-A, 2-C, 3-B

4. ✖ 1-C, 2-A, 3-B

Hints :
Civil_Set 2A

Question Number : 29 Question Id : 630680408792 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

A Rectangular beam 100mm wide and 250mm deep is subjected to a maximum shear force of 50kN. Determine the maximum shear stress.

Options :

1. ✖ 2 N/mm^2

2. ✖ 2.5 N/mm^2

3. ✔ 3 N/mm^2

4. ✖ 3.5 N/mm^2

Hints :
Civil_Set 2A

Question Number : 30 Question Id : 630680408793 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD

Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The deflection (y_c) at the free end of a cantilever of length L fixed at the point A and free at the point B and carrying a uniformly distributed load of w per unit length over the whole length by double integration method is ,

Where, E = Young's modulus

I = Moment of inertia

Options :

1. ✔ $-\dfrac{wL^4}{8EI}$

2. ✖ $-\dfrac{wL^3}{8EI}$

3. ✖ $-\dfrac{wL^3}{24EI}$

4. ✖ $-\dfrac{wL^4}{24EI}$

Hints :
Civil_Set 2A

Question Number : 31 Question Id : 630680408794 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1 to S3) pertain to the assumptions made for the analysis of trusses.

S1 : All loads and support reactions are applied only at the joints

S2 : The centroidal axis of each member does not coincides with the line connecting the centres of the adjacent joints

S3 : All members are connected only at their ends by frictionless in plane trusses and by frictionless ball and socket joint in space trusses.

Which of the statement(s) is/are correct?

Options :

1. ✖ S1 and S2

2. ✖ S1 only

3. ✖ S2 and S3

4. ✔ S1 and S3

Hints :
Civil_Set 2A

Question Number : 32 Question Id : 630680408795 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1, S2) pertain to Slenderness ratio of a column.

S1 : Slenderness ratio is defined as ratio of equivalent (or unsupported) length of column to the least radius of gyration of the section.

S2 : Slenderness ratio does not have any units

Validate the statements as True/False and choose the correct option

Options :

1. ✔ Both S1 and S2 are True.

2. ✖ S1 is True and S2 is False

3. ✖ S1 is False and S2 is True

4. ✖ Both S1 and S2 are False

Hints :
Civil_Set 2A

Question Number : 33 Question Id : 630680408796 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

An oil of specific gravity 0.9 is contained in a vessel. At a point the height of oil is 40m. Find the corresponding height of water at the point.

Options :

1. ✖ 42m of water

2. ✖ 40m of water

3. ✔ 36m of water

4. ✖ 32m of water

Hints :
Civil_Set 2A

Question Number : 34 Question Id : 630680408797 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

When the fluid particles move in a disorderly manner, then the flow is called as:

Options :

1. ✖ Rotational

2. ✖ Irrotational

3. ✖ Laminar

4. ✔ Turbulent

Hints :
Civil_Set 2A

Question Number : 35 Question Id : 630680408798 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1 to S4) pertain to the assumptions made in the derivation of Bernoulli's equation.

S1 : The flow is rotational

S2 : The flow is incompressible

S3 : The fluid is ideal

S4: The flow is steady

Which of the statement(s) is/are INCORRECT?

Options :

1. ✖ S1 and S2

2. ✔ S1 only

3. ✖ S2 and S3

4. ✖ S3 and S4

Hints :
Civil_Set 2A

Question Number : 36 Question Id : 630680408799 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statements is/are true or false related to negative pressure at the throat of a venturi meter?

S1: At the throat of a venturimeter, the velocity is minimum, because it has minimum cross sectional area and consequently the pressure is minimum, thus the pressure may be zero or even negative

S2 : When the negative pressure reaches the value of vapor pressure of the liquid flowing in the pipe, the liquid evaporates. So, the flow becomes discontinuous due to the existed vapor

Options :

1. ✖ S1 is true and S2 is false

2. ✔ S1 is false and S2 is true

3. ✖ Both S1 and S2 are true

4. ✖ Both S1 and S2 are false

Hints :
Civil_Set 2A

Question Number : 37 Question Id : 630680408800 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

A centrifugal pump is required to lift 0.012 m^3/s of water from a well with depth 20 m. If rating of the pump motor is 4 kW, find out efficiency of the pump. Take density of water= 1000 kg/m^3.

Options :

1. ✖ 40.80%

2. ✖ 43.52%

3. ✔ 58.86%

4. ✖ 64.68%

Hints :

Civil_Set 2A

Question Number : 38 Question Id : 630680408801 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pair(s) from the following:

Classification of turbines:

1. According to the type of energy at inlet : Reaction turbine

2. According to the specific speed of the turbine: High head turbine

3. According to the direction of flow through runner : Axial flow turbine

Options :

1. ✔ 1 and 3

2. ✖ Only 1

3. ✖ 2 and 3

4. ✖ Only 3

Hints :
Civil_Set 2A

Question Number : 39 Question Id : 630680408802 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following is the correct sequential order in the arrangement of component parts in a pumping system (starting from the sump to ending at the overhead tank) for pumping fluid from a sump below ground level to an overhead tank ? (Use codes for answering)

    A. Suction flange
    B. Delivery Valve
    C. Suction Pipe
    D. Delivery flange

Options :

1. ✖ C, D, B, A

2. ✖ D, C, B, A

3. ✖ B, D, A, C

4. ✔ C, A, D, B

Hints :
Civil_Set 2A

Question Number : 40 Question Id : 630680408803 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

In which type of estimate, each item of the project should be broken down into its parts and estimated?

Options :

1. ✔ Detailed estimate

2. ✖ Assembly estimating

3. ✖ Square foot estimate

4. ✖ Model estimating

Hints :
Civil_Set 2A

Question Number : 41 Question Id : 630680408804 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 1200 : (Part 12) - 1976 In plastering, the deduction is made for one face only and the other face is allowed for jambs, soffits and sills etc, for the openings is:

Options :

1. ✔ Exceeding 0.5Sq.m but not exceeding 3Sq.m

2. ✖ Above 3 Sq.m

3. ✖ Above 5 Sq.m

4. ✖ Up to 0.5Sq.m

Hints :
Civil_Set 2A

Question Number : 42 Question Id : 630680408805 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements 1 and 2 are based on the colour washing of surfaces of building.

1. Colour washing is prepared by adding colouring pigment to the screened white wash.

2. For colour washing on new surface, the first primary coat should be of white wash and the subsequent coats should be of colour wash

Select the appropriate option based on statements.

Options :

1. ✖ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✔ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :
Civil_Set 2A

Question Number : 43 Question Id : 630680408806 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 1200-1 (1992), Leads beyond 500 m shall be measured in units of _____, that is, there will be one item for lead exceeding 500 m and not exceeding 1000 m, another item for lead exceeding 1000 m and not exceeding 1500 m and so on up to 5 km.

Options :

1. ✔ 500m

2. ✖ 1000m

3. ✖ 1500m

4. ✖ 2000m

Hints :
Civil_Set 2A

Question Number : 44 Question Id : 630680408807 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD

Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 456:2000, a reinforced concrete rectangular beam having a width = 240 mm and effective depth = 400 mm is designed as a balanced section, using limit state method. The concrete used is M25 grade and the reinforcing steel is Fe500 grade. The depth of neutral axis of beam from compression side is :

Options :

1. ✖ 165 mm

2. ✖ 174 mm

3. ✔ 184 mm

4. ✖ 200 mm

Hints :
Civil_Set 2A

Question Number : 45 Question Id : 630680408808 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 456 : 2000, for 2 way slabs, with shorter span (less than 3.5 m) and imposed load less than 3 kN/m^2, the span to overall depth ratio of simply supported slabs, with Fe 415 grade steel reinforcement is :

Options :

1. ✔ 28

2. ✖ 32

3. ✖ 35

4. ✖ 40

Hints :
Civil_Set 2A

Question Number : 46 Question Id : 630680408809 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD

Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements related to providing lateral reinforcement in reinforced cement concrete (RCC) columns.

S1 : The purpose of providing lateral ties in a short RCC column is to increase the load carrying capacity of column.

S2 : It is not mandatory to provide lateral reinforcement in RCC columns.

choose the appropriate option.

Options :

1. ✖ Both S1 and S2 are true.

2. ✖ S1 is true and S2 is false.

3. ✖ S1 is false and S2 is true

4. ✔ Both S1 and S2 are false

Hints :
Civil_Set 2A

Question Number : 47 Question Id : 630680408810 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pair(s) from the following:

As per IS 456 : 2000, the permissible stresses based on working stress method of design are:

1. The Permissible direct tensile stress in tension members for grade of concrete M 30 : 3.2 N/mm^2

2. The Permissible direct compressive stress in concrete for grade of concrete M 25 : 6.0 N/mm^2

3. The Permissible bending compressive stress in concrete for grade of concrete M 25 : 7.0 N/mm^2

Options :

1. ✖ 1 and 3

2. ✔ Only 2

3. ✖ 2 and 3

4. ✖ Only 3

Hints :
Civil_Set 2A

Question Number : 48 Question Id : 630680408811 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements related to the lining of canals.

S1 : The cross-section area of lined canal is less than that for an unlined canal, for the same discharge.

S2 : Lining of canals provides a rough surface, and thereby increases the rugosity co-efficient.

S3 : Lined canals have greater evaporation loss than unlined canals.

S4 : Lined canals have flatter hydraulic gradient than unlined canals, for carrying the same discharge.

Which of the statement(s) is/are correct ?

Options :
1. ✖ S1, S2 only

2. ✖ S3 only

3. ✖ S2, S3 only

4. ✔ S1, S4 only

Hints :
Civil_Set 2A

Question Number : 49 Question Id : 630680408812 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the method of irrigation shown in the figure.
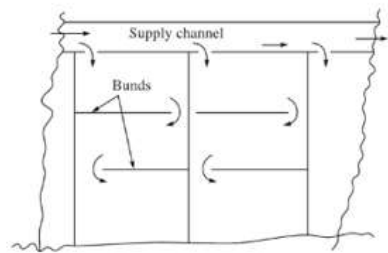
Options :

1. ✔ Zig-zag method

2. ✘ Border strip method

3. ✘ Contour laterals

4. ✘ Check flooding

Hints :
Civil_Set 2A

Question Number : 50 Question Id : 630680408813 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Find the delta for a crop if the duty for a base period of 140 days is 3456 hectares/m^3/s.

Options :

1. ✘ 200mm

2. ✘ 250mm

3. ✘ 300mm

4. ✔ 350mm

Hints :
Civil_Set 2A

Question Number : 51 Question Id : 630680408814 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD

Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The type of lining is useful for preventing erosion and where the ground water level is above the bed of the canal and there is a possibility of occurrence of damaging back pressures is:

Options :

1. ✖ Brick lining

2. ✖ Asphaltic lining

3. ✖ Shotcrete lining

4. ✔ Boulder lining

Hints :
Civil_Set 2A

Question Number : 52 Question Id : 630680408815 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the steps in order:

In Thiessen Polygon Method, the polygons are formed as follows:

1. Perpendicular bisectors are constructed on each of these dashed lines.

2. The stations are plotted on a map of the area drawn to a scale.

3. The bisectors form polygons around each station (effective area for the station within the polygon), for stations close to the boundary, the boundary lines form the closing limit of the polygons.

4. The adjoining stations are connected by the dashed lines.

Options :

1. ✖ 1-3-2-4

2. ✔ 2-4-1-3

3. ✖ 3-1-4-2

4. ✖ 3-4-1-2

Hints :
Civil_Set 2A

Question Number : 53 Question Id : 630680408816 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Read the following statements:

A Siphon rain gauge,

Statement 1: The gauge is also called float type rain gauge as this gauge has a chamber which contains a light and hollow float.

Statement 2: The record of rainfall is in the form of a mass curve of rainfall and hence the slope of the curve gives the intensity of rainfall.

Options :

1. ✖ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✔ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :

Civil_Set 2A

Question Number : 54 Question Id : 630680408817 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match List-I (Types of canals which are classified based on purpose) with List-II (Explanation) and select the correct answer using the codes given below the lists :

List-I (Types of canals which are classified based on purpose)	List-II (Explanation)
A. Power canals	1. provides water for drinking purposes and industrial use
B. Irrigation canals	2. small ships and steamers can ply in the canals
C. Navigation canals	3. constructed for carrying the water for irrigation
D. Water supply canal	4. constructed for carrying the water for hydropower generation

Options :

1. ✔ A-4, B-3, C-2, D-1

2. ✖ A-3, B-1, D-2, C-4

3. ✖ A-2, B-3, C-1, D-4

4. ✖ A-1, B-4, D-3, C-2

Hints :
Civil_Set 2A

Question Number : 55 Question Id : 630680408818 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Read the following statements:

Barrages are considered better than weirs due to the following reasons:

Statement 1: Barrages offer better control on the river outflow as well as discharge in the off-taking canal.

Statement 2: With proper regulation and with the help of undersluices and sediment excluders, the upstream region in the vicinity of the headworks can be kept free of sediment deposition so that sediment-free water enters the off-taking canal.

Options :

1. ✖ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✔ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :
Civil_Set 2A

Question Number : 56 Question Id : 630680408819 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following is not an underground source of water?

Options :

1. ✖ Infiltration wells

2. ✖ Springs

3. ✔ Storage reservoir

4. ✖ wells

Hints :
Civil_Set 2A

Question Number : 57 Question Id : 630680408820 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD

Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

What is the permissible limit of calcium in the absence of alternate source as per IS 10500 : 2012?

Options :

1. ✔ 200 mg/l

2. ✖ 100 mg/l

3. ✖ 75 mg/l

4. ✖ 50 mg/l

Hints :

Civil_Set 2A

Question Number : 58 Question Id : 630680408821 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements regarding the Slow sand filters:

Statement 1: Because of low filtration rates, slow sand filters require large areas of land and are costly to install

Statement 2: Slow sand filters are operated at high filtration rates, will normally utilize coagulation to prepare water for filtration

Select the appropriate option:

Options :

1. ✔ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✖ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :

Civil_Set 2A

Question Number : 59 Question Id : 630680408822 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value

Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

In the laying of concrete pipes as per IS : 783 – 1985, for steeply inclined pipelines, arrange the following gradient values, in the decreasing order of spacing of transverse anchors to be provided to the pipeline (corresponding to the gradients). Use codes for answering

  A. 1:2 or steeper
  B. 1:5 or 1:6
  C. 1:3 or 1:4

Options :

1. ✅ B, C, A

2. ❌ C, A, B

3. ❌ A, B, C
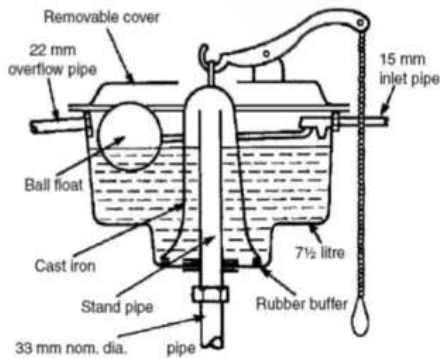
4. ❌ C, B, A

Hints :
Civil_Set 2A

Question Number : 60 Question Id : 630680408823 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the sanitary fitting shown in figure below.

Options :

1. ✖ Pedestal type water closet.

2. ✖ Flat back type wash basin.

3. ✖ Flat bottom type flushing cistern,

4. ✔ Bell type flushing cistern.

Hints :
Civil_Set 2A

Question Number : 61 Question Id : 630680408824 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

A structure which helps in joining sewer lines or in changing the direction or alignment or both is:

Options :

1. ✔ Manhole

2. ✖ Flushing tanks

3. ✖ Clean outs

4. ✖ Catch pits

Hints :
Civil_Set 2A

Question Number : 62 Question Id : 630680408825 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

In which type of incinerators, the components like metals, glass and other non-combustible materials are removed?

Options :

1. ✖ Fluidized bed incineration

2. ✔ RDF incineration

3. ✖ Mass fired incineration

4. ✖ Normal incineration

Hints :
Civil_Set 2A

Question Number : 63 Question Id : 630680408826 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

If BOD_5 of sewage discharging from an industry is 400 kg/day, then calculate its population equivalent?

(assume the average standard BOD_5 of domestic sewage is 80 gm/day/person)

Options :

1. ✖ 500

2. ✔ 5000

3. ✖ 400

4. ✖ 10000

Hints :
Civil_Set 2A

Question Number : 64 Question Id : 630680408827 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 10430:2000, arrange the following various lined drains according to the maximum permissible velocity in increasing order.

1. Stone pitched

2. Cement concrete lined

3. Burnt clay tile lined

Options :

1. ✖ 3-1-2

2. ✖ 2-3-1

3. ✔ 1-3-2

4. ✖ 2-1-3

Hints :
Civil_Set 2A

Question Number : 65 Question Id : 630680408828 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS : 1742-1983, Identify the correct pair(s) from the following:

1. Invert - The lowest point of the internal surface of a pipe of channel at any cross section.

2. Haunching - The finished level of the excavation at the bottom of a trench or heading prepared to receive the permanent work

3. Formation - Outward sloping concrete support to the sides of a pipe or channel above the concrete bedding.

Options :

1. ✖ 1 and 3

2. ✖ Only 2

3. ✖ 2 and 3

4. ✔ Only 1

Hints :
Civil_Set 2A

Question Number : 66 Question Id : 630680408829 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Read the following statements.

The precautions should be considered when collecting wastewater samples:

S1 : Sample containers for samples suspected of containing high concentrations of contaminants shall be stored separately

S2: Wastewater samples will typically be collected by directly filling the container or by using an automatic sampler or other device

S3 :All samples requiring preservation must be preserved as soon as practically possible, ideally immediately after sample collection

Which of the statement(s) is/are correct ?

Options :

1. ✔ S1, S2 & S3

2. ✘ S3 only

3. ✘ S2, S3 only

4. ✘ S1, S2 only

Hints :
Civil_Set 2A

Question Number : 67 Question Id : 630680408830 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

What is the steepest gradient that exists in a section and determines the maximum load that can be hauled by a locomotive on that section?

Options :

1. ✔ Ruling gradient

2. ✖ Gradient in station yards

3. ✖ Momentum gradient

4. ✖ Pusher gradient

Hints :
Civil_Set 2A

Question Number : 68 Question Id : 630680408831 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statement regarding the median width as per IRC 73.

a. Minimum desirable width of medians on rural highways is 5 metres, but this could be reduced to 3 metres where land is restricted

b: On long bridges and viaducts, the width of median may be reduced to 1.5 meters, but in any case this should not be less than 1.2 m

Select the appropriate option.

Options :

1. ✖ a is true and b is false

2. ✖ a is false and b is true

3. ✖ Both a and b are false

4. ✔ Both a and b are true

Hints :
Civil_Set 2A

Question Number : 69 Question Id : 630680408832 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000

SOW No	PROJECT_NoW_0000

Which of the following is a very rapid indirect method of measuring moisture content in undistorted soil in the field?

Options :

1. ✖ Oven drying method.

2. ✖ Infrared heat method.

3. ✔ Calcium carbide method.

4. ✖ Nuclear method.

Hints :
Civil_Set 2A

Question Number : 70 Question Id : 630680408833 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Out of the following, what is the definition of ultimate bearing capacity?

Options :

1. ✖ Net increase in pressure at the base of foundation that causes shear failure of soil

2. ✖ Net soil pressure which can safely be applied to the soil considering only shear failure

3. ✖ Maximum gross pressure which the soil can carry safely without shear failure

4. ✔ Gross pressure at the base of foundation at which the soil fails in shear

Hints :
Civil_Set 2A

Question Number : 71 Question Id : 630680408834 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1 to S3) pertain to the factors affecting permeability of soils.

S1 : In general the coefficient of permeability of soil increases as the void ratio increases except clay soil

S2 : The permeability of coarse-grained soils is very large as compared to that of fine-grained soils

S3 : The coefficient of permeability is inversely proportional to the unit weight of the percolating water

Which of the statement(s) is/are correct ?

Options :

1. ✔ S1 and S2

2. ✘ S1 only

3. ✘ S2 and S3

4. ✘ S1 and S3

Hints :
Civil_Set 2A

Question Number : 72 Question Id : 630680408835 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statements(s) is/are true or false related to bearing capacity of soil?

(i)   The depth upto which the effect of foundation load is felt is termed as significant depth.

(ii)   Presence of water table at a depth less than the width of the foundation from the foundation bottom will increase the bearing capacity of the soil.

Options :

1. ✔ Both statements are false.

2. ✘ Both statements are true.

3. ✘ Statement (i) is true and (ii) is false.

4. ✘ Statement (ii) is true and (i) is false.

Hints :
Civil_Set 2A

Question Number : 73 Question Id : 630680408836 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value

Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1 to S3) pertain to the longitudinal reinforcement in reinforced concrete columns, based on IS : 456 - 2000.

S1: The bars shall be less than 12 mm in diameter.

S2: The cross-sectional area of longitudinal reinforcement shall be not less than 0.8 percent nor more than 6 percent of the gross cross sectional area of the column.

S3: Spacing of longitudinal bars measured along the periphery of the column shall exceed 300mm.

Which of the statement(s) is/are incorrect ?

Options :

1. ✖ S1, S2, S3 only

2. ✔ S2 only

3. ✖ S2, S3 only

4. ✖ S1, S3 only

Hints :
Civil_Set 2A

Question Number : 74 Question Id : 630680408837 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following rocks in the decreasing order of their net safe bearing pressure values as per IS : 12070 - 1987.

(Use codes for answering)

 A. Granite

 B. Sandstone

 C. Soft shale

Options :

1. ✖ B, A, C

2. ✖ C, B, A

3. ✔ A, B, C

4. ✖ B, C, A

Hints :
Civil_Set 2A

Question Number : 75 Question Id : 630680408838 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pair(s) from the following:

According to Indian Standard Soil Classification System (ISSCS),

1. Soil with particle size > 300 mm – cobble

2. Soil with particle size in between 300 mm to 80 mm – boulder

3. Soil with particle size in between 4.75 mm to 0.075 mm – sand

Options :

1. ✖ 1 and 3

2. ✖ Only 2

3. ✖ 2 and 3

4. ✔ Only 3

Hints :
Civil_Set 2A

Question Number : 76 Question Id : 630680408839 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 800: 2007, what is the effective length of prismatic compression members, if the end restraints are effectively held in position at both ends but not restrained against rotation at both ends Where L= actual length of the column?

Options :

1. ✖ 1.50L

2. ✔ 1.00L

3. ✖ 0.80L

4. ✖ 0.65L

Hints :
Civil_Set 2A

Question Number : 77 Question Id : 630680408840 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pair(s) from the following:

Types of weld joints
1. Butt joint - In this joint type, the parts lie in the same plane and are joined at their edges
2. Edge joint - This joint consists of two overlapping parts
3. Lap joint - The parts are parallel with at least one of their edges in common, and the joint is made at the common edge

Options :

1. ✖ 1 and 3

2. ✖ Only 2

3. ✖ 2 and 3

4. ✔ Only 1

Hints :
Civil_Set 2A

Question Number : 78 Question Id : 630680408841 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD

Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 800-2007, the end fillet weld normal to the direction of force shall be of unequal size with a throat thickness not less than which of the following, where "t" is the thickness.

Options :

1. ✔ 0.5t

2. ✖ 0.4t

3. ✖ 0.2t

4. ✖ 0.1t

Hints :
Civil_Set 2A

Question Number : 79 Question Id : 630680408842 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match the following types of scales and its uses.

Types of scales	To measure
1.Plain scale	A. Three consecutive dimensions only
2.Vernier scale	B. Two consecutive dimensions only
3.Diagonal scale	C. Fractional part of one of the smallest divisions of a graduated scale

Choose the correct answer:

Options :

1. ✖ 1-A, 2-B, 3-C

2. ✖ 1-A, 2-C, 3-B

3. ✔ 1-B, 2-C, 3-A

4. ✘ 1-C, 2-A, 3-B

Hints :
Civil_Set 2A

Question Number : 80 Question Id : 630680408843 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

While ranging, if the signal by the surveyor is "Right arm extended", then the action by the assistant is,

Options :

1. ✘ Plumb the rod to the right

2. ✘ Move slowly to the right

3. ✘ Move considerably to the right

4. ✔ Continue to move to the right

Hints :
Civil_Set 2B

Question Number : 81 Question Id : 630680408844 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following steps for permanent adjustments of transit theodolite in chronological order:

A. Adjustment of Plate Level

B. Adjustment of line of sight

C. Adjustment of altitude bubble and vertical index frame

D. Adjustment of the Horizontal axis

Options :

1. ✖ A, B, D, C

2. ✖ C, A, B, D

3. ✖ B, D, A, C

4. ✔ A, C, B, D

Hints :
Civil_Set 2B

Question Number : 82 Question Id : 630680408845 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

In Electromagnetic radiation quantities, the radiant flux per unit solid angle leaving an extended source in a given direction per unit projected area of the source in that direction is known as:

Options :

1. ✖ Irradiance

2. ✖ Radiant energy

3. ✖ Spectral Signature

4. ✔ Radiance

Hints :
Civil_Set 2B

Question Number : 83 Question Id : 630680408846 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The ability of a construction material to withstand prolonged action of high temperature without melting or losing shape is known as:

Options :

1. ✖ Heat conductivity

2. ✖ Frost resistance

3. ✖ Hygroscopicity

4. ✔ Refractoriness

Hints :
Civil_Set 2B

Question Number : 84 Question Id : 630680408847 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match List-I (Tests on stone) with List-II (Property) and select the correct answer using the codes given below the lists :

List-I (Tests on stone)	List-II (Property)
A. Acid test	1.To check weather resistance
B. Brard's test	2.Resistance to abrasion
C. Attrition test	3.Resistance to frost

Options :

1. ✖ A-1, B-2, C-3

2. ✖ A-3, B-2, C-1

3. ✔ A-1, B-3, C-2

4. ✖ A-2, B-1, C-3

Hints :
Civil_Set 2B

Question Number : 85 Question Id : 630680408848 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD

Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

_____ is a sign of decay appearing in the form of yellow or red tinge or discolouration of overmatured trees.

Options :

1. ✖ End splits

2. ✖ Upsets

3. ✖ Twisted fibers

4. ✔ Foxiness

Hints :
Civil_Set 2B

Question Number : 86 Question Id : 630680408849 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following is also known as extra rapid hardening cement?

Options :

1. ✖ Air entraining cement

2. ✖ Portland slag cement

3. ✖ Sulphate resisting portland cement

4. ✔ Calcium chloride cement

Hints :
Civil_Set 2B

Question Number : 87 Question Id : 630680408850 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD

Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements regarding the Mercantile buildings (Group-F).

Statement 1: Mercantile buildings include any building or part of a building, which is used as shops, stores, markets, for display and sale of merchandise, either wholesale or retail

Statement 2: Office, storage and service facilities incidental to the sale of merchandise and located in the same building should be included under this group

Choose the appropriate option:

Options :

1. ✖ Statement 1 is true and statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✖ Both statements are false

4. ✔ Both statements are true

Hints :
Civil_Set 2B

Question Number : 88 Question Id : 630680408851 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements regarding the Auger boring.

S1: Augers are used in cohesive and other soft soils above water table.

S2: The hand-driven augers are used for relatively small depths, while the power-driven augers are used for greater depths.

S3: Auger boring is fairly satisfactory for explorations at shallow depths and for exploratory borrow pits.

Choose the appropriate option:

Options :

1. ✖ S1 is true and S2 and S3 are false

2. ✖ S2 is false and S1 and S3 are true

3. ✖ S3 is true and S1 and S2 are false

4. ✔ S1, S2 & S3 are true

Hints :
Civil_Set 2B

Question Number : 89 Question Id : 630680408852 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following steps to lay bricks in the Foundation upto the Plinth Level in chronological order

1. Laying the first course

2. Laying the second course

3. Spreading mortar on a concrete bed

4. Constructing corners

Options :

1. ✖ 1-2-3-4

2. ✔ 3-4-1-2

3. ✖ 2-1-3-4

4. ✖ 3-2-4-1

Hints :
Civil_Set 2B

Question Number : 90 Question Id : 630680408853 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the type of pointing shown in the figure.
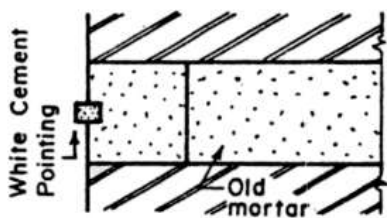
Options :

1. ✖ Beaded pointing

2. ✖ Rubbed pointing

3. ✔ Tuck pointing

4. ✖ Struck pointing

Hints :
Civil_Set 2B

Question Number : 91 Question Id : 630680408854 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following law/ theorem states that "If three forces acting at a point are in equilibrium, each force will be proportional to the sine of the angle between the other two forces".

Options :

1. ✖ Law of parallelogram of forces

2. ✖ Law of polygon of forces

3. ✖ Law of triangle of forces

4. ✔ Lami's theorem

Hints :
Civil_Set 2B

Question Number : 92 Question Id : 630680408855 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD

Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pairs from the following statements:

1. Concurrent forces - forces are having same line of action.

2. Collinear forces - forces are intersecting at a common point.

3. Coplanar forces - forces are acting in one plane.

Options :

1. ✖ Only 2

2. ✔ Only 3

3. ✖ Both 1 and 2

4. ✖ Both 2 and 3

Hints :
Civil_Set 2B

Question Number : 93 Question Id : 630680408856 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement(s) is/are true or false related to the centre of gravity of simple plane figures?

S1: The centre of gravity (C.G.) of a uniform rod lies at its end point

S2: The centre of gravity of a triangle lies at the point where the three medians of the triangle meet

S3: The centre of gravity of a rectangle or of a parallelogram is at the point, where its diagonal meet each other

S4: The centre of gravity of a circle is at its centre

Options :

1. ✖ S1, S2, S3 are true and S4 is false

2. ✔ S2, S3, S4 are true and S1 is false

3. ✖ Only S2 is true

4. ✖ S1,S2, S3 and S4 are true

Hints :
Civil_Set 2B

Question Number : 94 Question Id : 630680408857 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The moment of inertia of a triangular section about an horizontal axis passing through centre of gravity and parallel to the base is given by

Where, b= Base width

h= Height of the triangle

Options :

1. ✖ $\dfrac{bh^3}{3}$

2. ✖ $\dfrac{bh^3}{10}$

3. ✖ $\dfrac{bh^3}{12}$

4. ✔ $\dfrac{bh^3}{36}$

Hints :
Civil_Set 2B

Question Number : 95 Question Id : 630680408858 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Two equal forces are acting at a point with an angle of 60°. If the resultant force is equal to 20 x √3 N, find magnitude of each force using parallelogram law. (cos30° =√3/2).

Options :

1. ✖ 10 N

2. ✖ 15 N

3. ✔ 20 N

4. ✖ 22 N

Hints :
Civil_Set 2B

Question Number : 96 Question Id : 630680408859 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The point on the stress strain curve occurs after the proportionality limit is:

Options :

1. ✖ Ultimate point

2. ✖ Upper yield point

3. ✖ Lower yield point

4. ✔ Elastic limit

Hints :
Civil_Set 2B

Question Number : 97 Question Id : 630680408860 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Tensile strain is defined as:

Options :

1. ✖ Ratio of original length to increase in length

2. ✖ Ratio of original length to decrease in length

3. ✖ Ratio of increase in length to original length

4. ✔ Ratio of decrease in length to original length

Hints :
Civil_Set 2B

Question Number : 98 Question Id : 630680408861 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match List-I (Terms) with List-II (definitions) and select the correct answer using the codes given below the lists :

List-I (Terms)	List-II (definitions)
A. Resilience	1.The maximum strain energy stored in a body
B. Proof resilience	2.The total strain energy stored in a body
C. Modulus of resilience	3.Proof resilience of a material per unit volume

Options :

1. ✖ A-1, B-2, C-3

2. ✖ A-3, B-1, C-2

3. ✖ A-1, B-3, C-2

4. ✔ A-2, B-1, C-3

Hints :
Civil_Set 2B

Question Number : 99 Question Id : 630680408862 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1, S2) pertain to the maximum stress induced in a body due to applied load.

S1 : If the load 'P' is applied gradually, then the maximum stress induced in a body is $2 \times \dfrac{P}{Area}$

S2 : If the load 'P' is applied suddenly, then the maximum stress induced in a body is $\dfrac{P}{Area}$

Validate the statements as True/False and choose the correct option

Options :

1. ✖ Both S1 and S2 are True.

2. ✖ S1 is True and S2 is False

3. ✖ S1 is False and S2 is True

4. ✔ Both S1 and S2 are False

Hints :
Civil_Set 2B

Question Number : 100 Question Id : 630680408863 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1 to S3) pertain to the thermal or temperature stress and strain.

S1 : When a material undergoes a change in temperature, it either elongates or contracts depending upon whether temperature is increased or decreased of the material

S2 : If the elongation or contraction is not restricted, i. e. free then the material does not experience any stress despite the fact that it undergoes a strain

S3 : A compressive stress will not produce in the material with increase in temperature and the stress developed is tensile stress with decrease in temperature

Which of the statement(s) is/are correct ?

Options :

1. ✅ S1 and S2

2. ❌ S3 only

3. ❌ S2 and S3

4. ❌ S1 and S3

Hints :
Civil_Set 2B

Question Number : 101 Question Id : 630680408864 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement(s) is/are true or false related to the Fundamental measurements of total station?

S1: The vertical angle is measured relative to the local vertical (Plumb) direction.

S2: The vertical angle is usually measured as a zenith angle.

S3: The telescope will be pointing downward for zenith angles lesser than 90° and upward for angles greater than 90°.

Options :

1. ✅ S1, S2 are true and S3 is false

2. ❌ S1, S3 are true and S2 is false

3. ❌ Only S2 is true

4. ❌ S1, S2 and S3 are true

Hints :
Civil_Set 2B

Question Number : 102 Question Id : 630680408865 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following expression is correct about maximum shear stress at neutral axis in a rectangular section?

Options :

1. ✖ Maximum shear stress = 1.2 times the average shear stress

2. ✔ Maximum shear stress = 1.5 times the average shear stress

3. ✖ Maximum shear stress = 2 times the average shear stress

4. ✖ Maximum shear stress = 2.5 times the average shear stress

Hints :

Civil_Set 2B

Question Number : 103 Question Id : 630680408866 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

A cantilever of length 6m carries a point load of 48KN at its centre. The cantilever is propped rigidly at the free end.

Determine the reaction at the rigid prop.

Options :

1. ✖ 35kN

2. ✖ 25kN

3. ✔ 15kN

4. ✖ 10kN

Hints :

Civil_Set 2B

Question Number : 104 Question Id : 630680408867 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

If a statically determinate plane truss contains m members and j joints, then the truss is said to be internally stable if:

Options :

1. ✔ m > 2j-3

2. ✖ m< 2j-3

3. ✖ m> 3j-2

4. ✖ m< 3j-2

Hints :
Civil_Set 2B

Question Number : 105 Question Id : 630680408868 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1 to S3) pertain to the limitations of Euler's formula.

S1 : Euler's formula will be applicable for smaller slenderness ratio.

S2 : A column, whether short or long, is determined by the numerical values of slenderness ratios

S3 : Smaller the slenderness ratio, lesser will be the tendency to deflect and higher will be the buckling load

Which of the statement(s) is/are correct ?

Options :

1. ✖ S1 and S2

2. ✖ S1 only

3. ✔ S2 and S3

4. ✖ S1 and S3

Hints :
Civil_Set 2B

Question Number : 106 Question Id : 630680408869 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma

Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following statements (S1, S2) pertain to the method of joints.

S1 : The method can only be used to determine the internal forces in the members of statically determinate pin-jointed trusses

S2 : It consists of isolating each joint of the framework in the form of a free-body diagram and then by considering equilibrium at each of these joints, the forces in the members of the framework can be determined

Validate the statements as True/False and choose the correct option

Options :

1. ✔ Both S1 and S2 are True.

2. ✖ S1 is True and S2 is False

3. ✖ S1 is False and S2 is True

4. ✖ Both S1 and S2 are False

Hints :
Civil_Set 2B

Question Number : 107 Question Id : 630680408870 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Given the procedure to perform a 2D truss analysis using the method of joints, identify the steps in order.

1. Calculate the support reactions for the truss using equilibrium methods

2. Check that the truss is determinate and stable using the methods

3. If possible, reduce the number of unknown forces by identifying any zero force members in the truss

4. Identify a starting joint that has two or fewer members for which the axial forces are unknown

5. Move on to another joint that has two or fewer members for which the axial forces are unknown. Solve the unknown forces at that joint. Continue through the structure until all of the unknown truss member forces are known

6. Draw a free body diagram of the joint and use equilibrium equations to find the unknown forces

Use codes in the list for answering.

Options :

1. ✖ 3-5-4-2-6-1
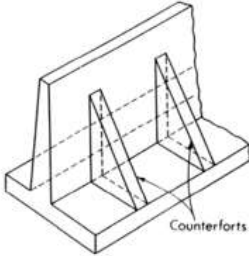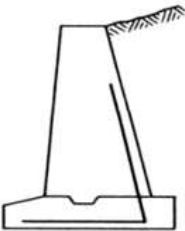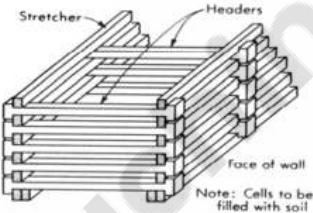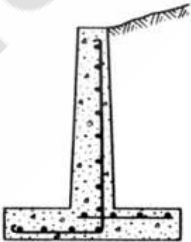
2. ✖ 3-1-5-2-4-6

3. ✖ 1-6-5-3-4-2

4. ✔ 2-3-1-4-6-5

Hints :

Civil_Set 2B

Question Number : 108 Question Id : 630680408871 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match List-I (Types of retaining walls) with List-II (Diagram) and select the correct answer using the codes given below the lists :

List-I (Types of retaining walls)	List-II (Diagram)
A. Crib wall	Counterforts 1.
B. Counterfort wall	2.
C. Semi-gravity wall	Stretcher — Headers — Face of wall Note: Cells to be filled with soil 3.
D. Cantilever wall	4.

Options :

1. ✖ A-4, B-2, C-3, D-1

2. ✔ A-3, B-1, C-2, D-4

3. ✖ A-2, B-3, C-1, D-4

4. ✖ A-1, B-4, D-3, C-2

Hints :
Civil_Set 2B

Question Number : 109 Question Id : 630680408872 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

A rectangular plane surface 2m wide and 3m deep lies in water in such a way that its plane makes an angle of 30° with the free surface of water. The value of total pressure when the upper edge is 1.5m below the free water surface, is

(assume g= 10m/s^2)

Options :

1. ✅ 135.00 kN

2. ✖ 129.56 kN

3. ✖ 120.44 kN

4. ✖ 117.32 kN

Hints :

Civil_Set 2B

Question Number : 110 Question Id : 630680408873 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following device is used for measuring the velocity of fluid flow at any point in a pipe or channel?

Options :

1. ✖ Piezometer

2. ✖ Venturimeter

3. ✖ Orifice meter

4. ✔ Pitot tube

Hints :
Civil_Set 2B

Question Number : 111 Question Id : 630680408874 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
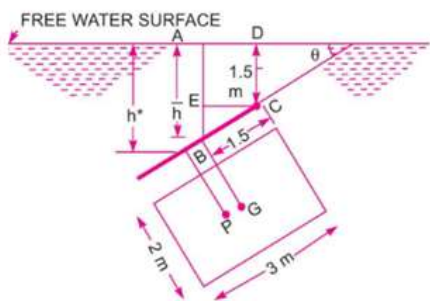**Correct Marks : 1 Wrong Marks : 0**
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement(s) is/are true or false related to orifice meter?

S1: Orifice meter is a device used for measuring the rate of flow of fluid through a pipe.

S2: The orifice diameter is kept generally 0.5 times the diameter of the pipe, though it may vary from 0.4 to 0.8 times the pipe diameter.

Options :

1. ✖ S1 is true and S2 is false

2. ✖ S1 is false and S2 is true

3. ✔ Both S1 and S2 are true

4. ✖ Both S1 and S2 are false

Hints :
Civil_Set 2B

Question Number : 112 Question Id : 630680408875 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The flow is turbulent in pipes if the Reynold number is _____ .

Options :

1. ✖ Less than 4000

2. ✔ More than 4000

3. ✖ Less than 2000

4. ✖ Exactly 2000

Hints :
Civil_Set 2B

Question Number : 113 Question Id : 630680408876 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match List-I (rate per unit of an item) with List-II (definitions) and select the correct answer using the codes given below the lists :

List-I (Rate per unit of an item)	List-II (definitions)
A. Quantity of materials & cost	1. Some works need special type of equipment, tools and plant. In such case, an amount of 1 to 2% of estimated cost is provided
B. Cost of equipment (T&P)	2. The requirement of materials are taken strictly in accordance with standard data book (S.D.B) and the cost of these includes first cost, freight, insurance and transportation charges
C. Overhead charges	3. To meet expenses of office rent, depreciation of equipment salaries of staff postage, lighting an amount of 4% of estimate cost is allocated

Options :

1. ✔ A-2, B-1, C-3

2. ✖ A-1, B-3, C-2

3. ✖ A-3, B-1, C-2

4. ✖ A-3, B-2, C-1

Hints :
Civil_Set 2B

Question Number : 114 Question Id : 630680408877 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements regarding the Centre line method to take out quantities like earth work, foundation concrete, brickwork in plinth and super structure etc.

Statements:

1. The method is suitable for walls of similar cross sections.

2. In case of partitions or verandah walls joining the main walls, the centre line length shall be increased by half of the breadth of the layer of main wall that joins with the partition or verandah wall at the same level.

Select the appropriate option based on statements.

Options :

1. ✔ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✖ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :
Civil_Set 2B

Question Number : 115 Question Id : 630680408878 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000

SOW No	PROJECT_NoW_0000

A room with internal dimension of 4.8 m × 4.8 m with 20 cm walls all around. Its central line length will be

Options :

1. ✔ 20.0 m

2. ✖ 24.4 m

3. ✖ 35.9 m

4. ✖ 37.9 m

Hints :
Civil_Set 2B

Question Number : 116 Question Id : 630680408879 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statement regarding the prismoidal rule in computation of earthwork is INCORRECT?

Options :

1. ✖ The prismoidal formula applies to volumes of all geometric solids that can be considered prismoids

2. ✖ The prismoidal Rule is an improvement over the simpler Trapezoidal Rule and is more accurate when dealing with irregular cross-sections

3. ✖ The prismoidal formula generally gives a volume smaller than that found by the average-end area formula

4. ✔ One arrangement of the prismoidal formula is $Vp = L(A1 + 6Am + A2)/6$, Where Vp is the prismoidal volume in cubic meter, A1 and A2 are areas of successive cross sections taken in the field, Am is the area of a "computed" section midway between A1 and A2, and L is the horizontal distance between A1 and A2

Hints :
Civil_Set 2B

Question Number : 117 Question Id : 630680408880 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1

Vendor Code	000000
SOW No	PROJECT_NoW_0000

Following the limit state method of design a solid reinforced concrete slab is constructed using M20 concrete having maximum shear stress of 2.8 N/mm^2. As per IS 456 :2000, the nominal shear stress in the slab shall not exceed :

Options :

1. ✖ 2.8 N/mm^2

2. ✔ 1.4 N/mm^2

3. ✖ 1.8 N/mm^2

4. ✖ 2.5 N/mm^2

Hints :
Civil_Set 2B

Question Number : 118 Question Id : 630680408881 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 456 : 2000, for 2 way slabs, with shorter span (less than 3.5 m) and imposed load less than 3 kN/m^2, the span to overall depth ratio of continuous slabs, with Fe 415 grade steel reinforcement is :

Options :

1. ✖ 28

2. ✔ 32

3. ✖ 35

4. ✖ 40

Hints :
Civil_Set 2B

Question Number : 119 Question Id : 630680408882 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2

Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 456 : 2000, the minimum eccentricity value to be adopted in the design of a reinforced concrete column of square size (with side a), having an unsupported length L?

Options :

1. ✖ $\left(\dfrac{L}{300} + \dfrac{a}{30}\right)$ subject to a minimum of 20 mm.

2. ✖ $\left(\dfrac{L}{350} + \dfrac{a}{20}\right)$ subject to a minimum of 25 mm.

3. ✖ $\left(\dfrac{L}{400} + \dfrac{a}{20}\right)$ subject to a minimum of 10 mm

4. ✔ $\left(\dfrac{L}{500} + \dfrac{a}{30}\right)$ subject to a minimum of 20 mm

Hints :
Civil_Set 2B

Question Number : 120 Question Id : 630680408883 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The following conclusions 1 and 2 are based on the statement pertaining to T-beams.

Statement : According to IS 456 : 2000, a slab which is assumed to act as a compression flange of a T-beam or L-beam shall satisfy the following:

1. The slab shall be cast integrally with the web, or the web and the slab shall be effectively bonded together in any other manner

2. If the main reinforcement of the slab is parallel to the beam, transverse reinforcement shall be provided, such reinforcement shall not be less than 60 percent of the main reinforcement at mid span of the slab

Select the appropriate option based on statements.

Options :

1. ✖ Only conclusion 1 is correct

2. ✖ Only conclusion 2 is correct

3. ✔ Both conclusions 1 & 2 are correct

4. ✖ Both conclusions 1 & 2 are incorrect

Hints :
Civil_Set 2B

Question Number : 121 Question Id : 630680408884 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statements are true/false regarding the necessity of irrigation?

Statement 1: If the distribution of rainfall in the zone of crop area is not evenly distributed as per requirement of the crop growth, irrigation is extremely necessary.

Statement 2: The dry and desert areas can be converted to a beautiful cropland if irrigation water can be supplied as per need.

Options :

1. ✖ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✔ Both Statement 1 and 2 are true

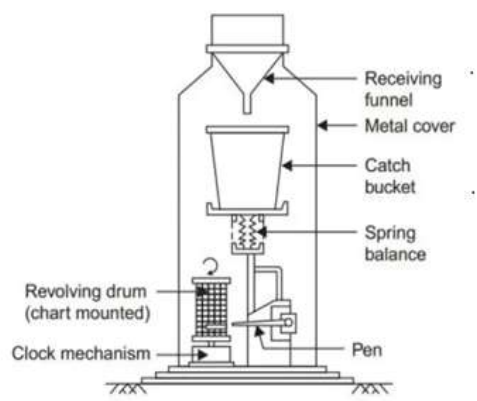4. ✖ Both Statement 1 and 2 are false

Hints :
Civil_Set 2B

Question Number : 122 Question Id : 630680408885 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the type of rain gauge shown in the figure.

Options :

1. ✖ Symon's rain gauge

2. ✔ Weighing type rain gauge

3. ✖ Tipping bucket rain gauge

4. ✖ Float type of rain gauge

Hints :
Civil_Set 2B

Question Number : 123 Question Id : 630680408886 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Choose the incorrect cause for water logging in farms.

Options :

1. ✔ Excessive tapping of ground water.

2. ✖ Drainage is Inadequate.

3. ✖ Water seepage from irrigation canals.

4. ✖ Frequent flooding.

Hints :
Civil_Set 2B

Question Number : 124 Question Id : 630680408887 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pair(s) from the following:

1. Time Factor: Duty of water of a crop at the outlet of the canal.

2. Capacity Factor: The ratio of the mean discharge of a canal during a certain period to the maximum discharge is defined as the capacity factor.

3. Outlet Discharge Factor: Ratio of the number of days the canal actually runs during a watering period to the total number of days of the watering period.

Options :

1. ✖ 1 and 3

2. ✔ Only 2

3. ✖ 2 and 3

4. ✖ Only 3

Hints :
Civil_Set 2B

Question Number : 125 Question Id : 630680408888 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS 10430 : 2000, arrange the following different types of lining according to the limiting velocities in increasing order.

1. Stone-pitched lining

2. Burnt clay tile or brick lining

3. Cement concrete lining

Options :

1. ✖ 3-1-2

2. ✖ 2-1-3

3. ✔ 1-2-3

4. ✖ 1-3-2

Hints :
Civil_Set 2B

Question Number : 126 Question Id : 630680408889 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

What is the permissible limit of Magnesium in the absence of alternate source as per IS 10500 : 2012?

Options :

1. ✖ 200 mg/l

2. ✔ 100 mg/l

3. ✖ 75 mg/l

4. ✖ 50 mg/l

Hints :
Civil_Set 2B

Question Number : 127 Question Id : 630680408890 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which type of settling refers to rather dilute suspension of particles that coalesce or flocculate during sedimentation process?

Options :

1. ✖ Discrete settling

2. ✔ Hindered settling

3. ✖ Zone settling

4. ✖ Compression settling

Hints :
Civil_Set 2B

Question Number : 128 Question Id : 630680408891 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

In which of the following type of sedimentation tank, the water is allowed to enter through a deflector box which is provided at the centre?

Options :

1. ✖ Continuous flow tank

2. ✔ Circular tank

3. ✖ Square tank

4. ✖ Hopper bottom tank

Hints :
Civil_Set 2B

Question Number : 129 Question Id : 630680408892 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

What are useful for screening stored water which do not contain a large amount of suspended matter while conveyance of water?

Options :

1. ✖ Automatic strainers

2. ✔ Micro strainers

3. ✖ Bar screens

4. ✖ Coarse screens

Hints :
Civil_Set 2B

Question Number : 130 Question Id : 630680408893 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following statements are true/false regarding the Hardness of water?

Statement 1: Hardness of water can cause scaling in water systems reducing the flow-carrying capacity and increasing the head losses

Statement 2: Hardness of water is caused by the presence of multivalent cations, like calcium, magnesium, and iron, as their carbonates, sulphates, nitrates and chlorides in water

Options :

1. ✖ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✔ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :
Civil_Set 2B

Question Number : 131 Question Id : 630680408894 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0
Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000

SOW No	PROJECT_NoW_0000

Arrange the operations to be done in laying of the water pipe for conveyance of water in chronological order.

1. Excavation of trenches

2. Location of the proposed alignment on the ground

3. Preparation of road maps

4. Preparation of trench bottom

5. Jointing of pipes

6. Introduction of pipes into the trenches

7. Laying of pipes

8. Anchoring of pipes

9. Backfilling with earth.

Options :

1. ✖ 1-2-3-5-6-4-9-8-7

2. ✔ 3-2-1-4-6-7-5-8-9

3. ✖ 5-1-2-4-8-9-7-3-6
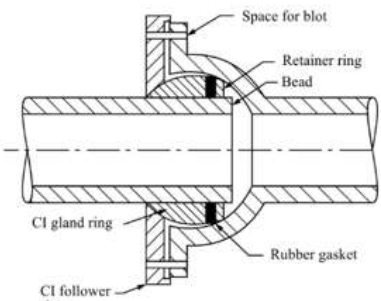
4. ✖ 4-2-1-3-6-7-5-8-9

Hints :
Civil_Set 2B

Question Number : 132 Question Id : 630680408895 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Match List-I (Pipe joints) with List-II (diagram) and select the correct answer using the codes given below the lists :

List-I (Pipe joints)	List-II (diagrams)
A. Flexible joint	1.
B. Expansion joint	2.
C. Flanged joint	3.

Options :

1. ✖ A-1, B-2, C-3

2. ✖ A-3, B-1, C-2

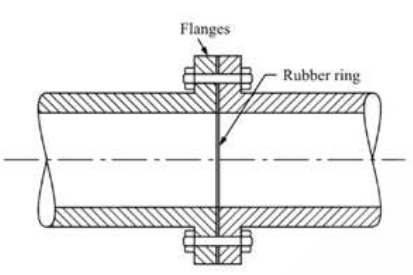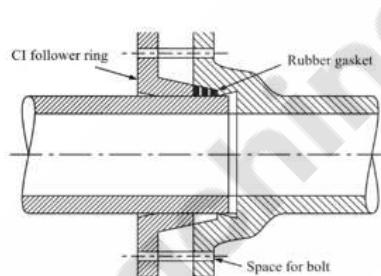3. ✔ A-1, B-3, C-2

4. ✖ A-2, B-1, C-3

Hints :
Civil_Set 2B

Question Number : 133 Question Id : 630680408896 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium

Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The process of burning the garbage into ash is known as

Options :

1. ✔ Incineration

2. ✖ Pulverization

3. ✖ Trenching

4. ✖ Composting

Hints :
Civil_Set 2B

Question Number : 134 Question Id : 630680408897 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

_____ are depressed portions of sewers, which flow full under pressure more than the atmospheric pressure due to flow line being below the hydraulic grade line.

Options :

1. ✖ Manholes

2. ✔ Inverted siphons

3. ✖ Clean outs

4. ✖ Catch pits

Hints :
Civil_Set 2B

Question Number : 135 Question Id : 630680408898 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma

Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

According to IS: 4111 (Part 1) – 1986, what is the spacing of manholes that may be allowed on straight runs for sewers of diameter above 1.5 m to 2.0 m?

Options :

1. ✖ 50 to 90 m

2. ✖ 90 to 150 m

3. ✔ 150 to 200 m

4. ✖ 200 to 300 m

Hints :
Civil_Set 2B

Question Number : 136 Question Id : 630680408899 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following colours in a three coloured traffic signal control head facing each direction of traffic flow, in the sequential order from bottom to top? (Use codes for answering)

A. Red

B. Green

C. Amber

Options :

1. ✖ B, A, C

2. ✖ C, B, A

3. ✔ B, C, A

4. ✖ C, A, B

Hints :
Civil_Set 2B

Question Number : 137 Question Id : 630680408900 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD

Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements regarding the centreline markings.

Statement 1:The centre lines should be used only on single carriageway roads to separate the opposite streams of traffic and to facilitate their movements

Statement 2: On undivided carriageway where 2 lanes are available for one direction, double centre line should be used to separate the opposite stream of traffic

Select the appropriate option:

Options :

1. ✖ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✔ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :
Civil_Set 2B

Question Number : 138 Question Id : 630680408901 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Identify the correct pair(s) from the following:

1. PVT (point of vertical tangent): The point of intersection of the initial tangent grade and the final tangent grade

2. Length of vertical curve: Horizontal distance between PVC (point of vertical curve) and PVT

3. PVI (point of vertical intersection): The point of intersection of the vertical curve with the final tangent grade

Options :

1. ✖ 1 and 3

2. ✔ Only 2

3. ✖ 2 and 3

4. ✖ Only 3

Hints :
Civil_Set 2B

Question Number : 139 Question Id : 630680408902 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

The desirable carriage way width recommended by IRC for two lane road without raised kerbs and two lane road with raised kerbs respectively are:

Options :

1. ✔ 7.0 m and 7.5 m

2. ✘ 7.5 m and 7.0 m

3. ✘ 3.75 m and 5.5 m

4. ✘ 5.5 m and 3.75 m

Hints :
Civil_Set 2B

Question Number : 140 Question Id : 630680408903 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IRC:52-2019, in case transition curve is not there or adequate length cannot be provided due to some reason, _____ super-elevation shall be attained on the straight reach and balance on circular curve

Options :

1. ✘ $\frac{1}{2}$

2. ✔ $\frac{2}{3}$

3. ✘ $\frac{1}{3}$

4. ✖ $\dfrac{3}{2}$

Hints :
Civil_Set 2B

Question Number : 141 Question Id : 630680408904 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

A soil sample have void ratio = 0.30 and specific gravity of solid soil particles = 2.80. What will be the water content at full saturation of the soil sample?

Options :

1. ✔ 10.71%.

2. ✖ 21.43%.

3. ✖ 25.76%.

4. ✖ 32.65%.

Hints :
Civil_Set 2B

Question Number : 142 Question Id : 630680408905 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

If i is hydraulic gradient, h is hydraulic head and L is length of the soil specimen, then the correct relation between these three is:

Options :

1. ✖ $i = \sqrt{h}/L$

2. ✔ $i = h/L$

3. ✖ $i = h/L^2$

4. ✖ $i = h/L^3$

Hints :
Civil_Set 2B

Question Number : 143 Question Id : 630680408906 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Arrange the following steps involved in painting of old iron work in chronological order:

1. The surface is prepared by scraping properly all the scales and rust with emery paper.

2. The old paint may be burned with a blowlamp or by suitable solvents.

3. The greasy substances are removed with lime water.

4. The surface is brushed with hot linseed oil and painted as for new iron work.

Options :

1. ✔ 1-3-2-4

2. ✖ 3-1-4-2

3. ✖ 2-4-3-1

4. ✖ 1-2-4-3

Hints :
Civil_Set 2B

Question Number : 144 Question Id : 630680408907 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Read the following statements (S1 to S3) pertain to the white washing of surfaces of building.

S1: Towards the surface preparation for white washing of a new surface, it shall be perfectly brushed free from mortar droppings (while under plastering work) and any other extraneous matter

S2: For an old surface all loose material has to be taken off (scrapped) − and, all gaps (holes) in the plaster as also all patches (less than 50   m^2 in area) shall be done completely with mortar of the original mix

S3: If the old white washed surface is discoloured by smoke, a wash of wood-ashes and water shall be applied before the coat of white wash

Which of the statement(s) is/are CORRECT ?

Options :

1. ✖ S1 and S2

2. ✖ S3 only

3. ✔ S1, S2 and S3

4. ✖ S1 and S3

Hints :
Civil_Set 2B

Question Number : 145 Question Id : 630680408908 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

According to IS 800: 2007, how are the rolled steel cross-sections classified, in which the elements get buckled locally even before reaching yield stress?

Options :

1. ✔ Class 4

2. ✖ Class 3

3. ✖ Class 1

4. ✖ Class 0

Hints :
Civil_Set 2B

Question Number : 146 Question Id : 630680408909 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD

Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

As per IS: 800-2007, the effective slenderness ratio of laced columns shall be taken as _____ times the actual maximum slenderness ratio, in order to account for shear deformation effects.

Options :

1. ✖ 1.02

2. ✔ 1.05

3. ✖ 2.20

4. ✖ 2.50

Hints :
Civil_Set 2B

Question Number : 147 Question Id : 630680408910 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Which of the following compression member cross section is not valid as per IS 800-2007?

Options :

1. ✔ Elastic

2. ✖ Plastic

3. ✖ Compact

4. ✖ Slender

Hints :
Civil_Set 2B

Question Number : 148 Question Id : 630680408911 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD

Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Given the following members of a roof truss, identify the member(s) which are subjected to compressive forces.

1. Principal rafter,

2. Tie

3. Sling

4. Strut

Use codes for answering.

Options :

1. ✖ 1 and 3

2. ✖ Only 3

3. ✖ 2 and 4

4. ✔ 1 and 4

Hints :
Civil_Set 2B

Question Number : 149 Question Id : 630680408912 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Select the correct option from the following statements related limit state of design of a structure as per IS 800:2007.

1. The limit states of strength are those associated with failures under the action of probable and most unfavourable combination of loads, designed using the appropriate partial safety factors,

2. The limit state of serviceability include: Deformation and deflections, vibrations and corrosions

Options :

1. ✖ Statement 1 is true and 2 is false

2. ✖ Statement 1 is false and 2 is true

3. ✔ Both statements are true

4. ✖ Both statements are false

Hints :

Question Number : 150 Question Id : 630680408913 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Key Details :

Key	Value
Program	TBD
Course	TBD
Topic	TBD
Sub Topic	TBD
Concept or Type	TBD
Difficulty Level	M-Medium
Level	Grade Diploma
Exam	VIO1_Civil_Set 2
Project	VIOLIN1
Vendor Code	000000
SOW No	PROJECT_NoW_0000

Consider the following statements regarding the limiting vertical deflection of beam as per IS 800:2007.

Statement 1:The maximum vertical deflection for a simply supported beam supporting elastic cladding, is limited to Span/240

Statement 2: The maximum vertical deflection for a cantilever beam supporting brittle cladding, is limited to Span/150

Select the appropriate option:

Options :

1. ✖ Statement 1 is true and Statement 2 is false

2. ✖ Statement 1 is false and Statement 2 is true

3. ✔ Both Statement 1 and 2 are true

4. ✖ Both Statement 1 and 2 are false

Hints :
Civil_Set 2B