

Railway Recruitment Board

Notations :

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

Question Paper Name:	Senior Section Engineer 2nd Sep Shift 2 Actual
Subject Name:	Senior Section Engineer
Creation Date:	2015-08-31 13:07:56.0
Cut Off:	0
Duration:	120
Number of Questions:	150
Total Marks:	150.0

Senior Section Engineer	
Group Number :	1
Group Id :	38
Group Maximum Duration :	0
Group Minimum Duration :	120
Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0
Group Marks:	150.0

Senior Section Engineer	
Section Id :	38
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	150
Number of Questions to be attempted:	150
Section Marks:	150.0

Sub-Section Number:	1
Sub-Section Id:	38
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 6751 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

When two bodies are in thermal equilibrium with a third body they are also in thermal equilibrium with each other. This statement is called

- a. Zeroth law of thermodynamics
- b. First law of thermodynamics
- c. Second law of thermodynamics
- d. Kelvin Planck's law

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 2 Question Id : 6752 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is correct?

- a. Absolute pressure = gauge pressure + atmospheric pressure
- b. Gauge pressure = absolute pressure + atmospheric pressure
- c. Atmospheric pressure = absolute pressure + gauge pressure
- d. Absolute pressure = gauge pressure – atmospheric pressure.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 3 Question Id : 6753 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following are intensive properties?

1. Kinetic Energy
2. Specific Enthalpy
3. Pressure
4. Entropy

Select the correct answer using the code given below:

- a. 1 and 3
- b. 2 and 3
- c. 1, 3 and 4
- d. 2 and 4

Options :

1. ✗ a
2. ✓ b
3. ✗ c
4. ✗ d

Question Number : 4 Question Id : 6754 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

When atmospheric air is heated at constant pressure, its

- a. humidity ratio changes
- b. relative humidity increases
- c. dew point temperature does not change
- d. wet bulb temperature increases

Options :

1. ✗ a
2. ✗ b
3. ✓ c
4. ✗ d

Question Number : 5 Question Id : 6755 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

A real gas having positive Joule Thomson coefficient, when throttled will

- a. become warmer
- b. become cooler
- c. remains at same temperature
- d. either be warmer or cooler depending upon composition of gas

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 6 Question Id : 6756 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In the construction of drinking water coolers, the water chilling circuit is normally

- a. of the tube-in-tube type
- b. made with the refrigerant coiled wound outside a water tank
- c. made with the refrigerant coiled wound outside a water storage tank
- d. of the shell-and-tube type

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 7 Question Id : 6757 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The peak frequency at which energy is radiated from a blackbody radiator is dependent on

- a. color
- b. distance
- c. intensity
- d. temperature

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 8 Question Id : 6758 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Compression ignition engines operate on.....

- a. Auto cycle
- b. Otto cycle
- c. Diesel cycle
- d. Carnot cycle

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 9 Question Id : 6759 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

To connect piston to the connecting rod the.....are used:

- a. rod caps
- b. cap bolts
- c. small end bearings
- d. gudgeon pins

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✘ c
- 4. ✔ d

Question Number : 10 Question Id : 6760 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

In which of the following case, air fuel rate is expected to be highest

- a. 2stroke petrol engine
- b. 4stroke petrol engine
- c. 2stroke diesel engine
- d. 4stroke diesel engine

Options :

- 1. ✘ a

2. ✘ b

3. ✔ c

4. ✘ d

Question Number : 11 Question Id : 6761 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The purpose of providing a draft allowance on the patterns is.....

- a. to provide good draft of air in the sand moulding
- b. to provide for distortion that might take place
- c. to remove the pattern easily from the moulding
- d. to increase the strength of the mould walls

Options :

1. ✘ a

2. ✘ b

3. ✔ c

4. ✘ d

Question Number : 12 Question Id : 6762 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In orthogonal cutting

- a. cutting edge is inclined to axis of job
- b. cutting edge is perpendicular to axis of the job
- c. cutting edge is perpendicular to line of its motion
- d. cutting edge is parallel to line of its motion

Options :

1. ✘ a

2. ✘ b

3. ✔ c

4. ✘ d

Question Number : 13 Question Id : 6763 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The hot working of metals is done

- a. at the recrystallisation temperature
- b. above recrystallisation temperature
- c. below recrystallisation temperature
- d. at any temperature

Options :

1. ✓ a
2. ✗ b
3. ✗ c
4. ✗ d

Question Number : 14 Question Id : 6764 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In joining brass metal by gas welding, the flame adjustment should lie such that the flame is.....

- a. a reducing one
- b. an oxidizing one
- c. a neutral one
- d. none ; since brass can be welded only by arc welding

Options :

1. ✗ a
2. ✓ b
3. ✗ c
4. ✗ d

Question Number : 15 Question Id : 6765 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A transformer transforms

- a. voltage
- b. current
- c. power
- d. frequency

Options :

1. ✗ a
2. ✗ b
3. ✓ c
4. ✗ d

Question Number : 16 Question Id : 6766 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A.C. is converted into D.C. by

- a. Dynamo
- b. Motor
- c. Transformer
- d. Rectifier

Options :

1. ✘ a
2. ✘ b
3. ✘ c
4. ✔ d

Question Number : 17 Question Id : 6767 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A distribution line of 440 V is classified as

- a. LV
- b. MV
- c. HV
- d. EHV

Options :

1. ✘ a
2. ✔ b
3. ✘ c
4. ✘ d

Question Number : 18 Question Id : 6768 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Illumination level is measured in terms of

- a. Flux
- b. Volt
- c. Ampere
- d. Ohm

Options :

1. ✔ a
2. ✘ b
3. ✘ c
4. ✘ d

Question Number : 19 Question Id : 6769 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In house wiring the green wire indicates the

- a. Phase
- b. Neutral
- c. Earth wire
- d. Dead wire.

Options :

1. ✘ a
2. ✘ b
3. ✔ c

4. ✖ d

Question Number : 20 Question Id : 6770 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In 4 wire electric circuit, the black conductor is used for

- a. Phase
- b. Neutral
- c. Earth wire
- d. Armour

Options :

1. ✖ a

2. ✔ b

3. ✖ c

4. ✖ d

Question Number : 21 Question Id : 6771 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not a constituent of a solar lighting system

- a. Photo voltaic cell
- b. Back up batteries
- c. Charger
- d. Earth wire.

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 22 Question Id : 6772 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Following law is applicable in the working of lead acid cell

- a. Faradays law of self-induction.
- b. Faradays law of mutual induction
- c. Faradays law of electrolysis.
- d. Newton's law of motion.

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 23 Question Id : 6773 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A mercury vapour lamp gives..... light.

- a. White
- b. pink
- c. yellow
- d. greenish blue

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 24 Question Id : 6774 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The overall efficiency of thermal power plant is equal to

- a. Rankine cycle efficiency
- b. Carnot cycle efficiency
- c. Regenerative cycle efficiency
- d. Boiler efficiency x turbine efficiency x generator efficiency

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 25 Question Id : 6775 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The minimized form of the logical algebraic expression

$$Z = ABC + ABD + \overline{A}B\overline{C} + CD + B\overline{D} \text{ is given by}$$

- a. $A+BC+D$
- b. $AB+CD$
- c. $B+CD$
- d. $A+CD$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 26 Question Id : 6776 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

At absolute zero temperature, an intrinsic semiconductor behaves like an insulator because of

- Low electron energy.
- Low drift velocity of free electron.
- Non-availability of free electron.
- Non-recombination of electron with hole.

Options :

- ☐ a
- ☐ b
- ☒ c
- ☐ d

Question Number : 27 Question Id : 6777 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the drift velocity of holes under a field gradient of 400 V/m is 200 m/s, their mobility in SI unit is

- 0.05
- 0.55
- 0.5
- 2

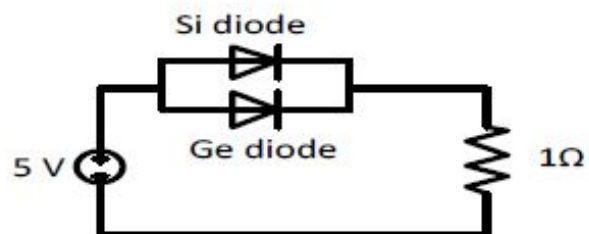
Options :

- ☐ a
- ☐ b
- ☒ c
- ☐ d

Question Number : 28 Question Id : 6778 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the voltage across the 1Ω register?



- 4.7 V
- 4.3 V
- 4 V
- 5 V

Options :

- ☒ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 29 Question Id : 6779 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

In transistor, if electrons flow into emitter,

- a. Holes flows out of the emitter
- b. Holes flows out of the collector
- c. Electron flow into the collector
- d. Electron flow out of the collector

Options :

1. ✖ a

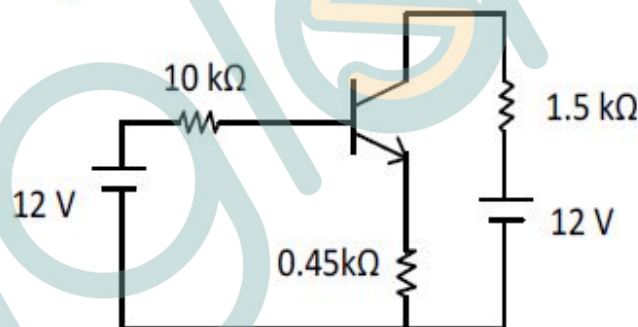
2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 30 Question Id : 6780 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

For the circuit shown in the below figure, by assuming $\beta = 100$ and $V_{BE} = 0.7$ V, the best approximation for the collector current I_C in the active region is



- a. 2.5 mA
- b. 3 mA
- c. 5 mA
- d. 3.5 mA

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 31 Question Id : 6781 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The voltage follower is commonly used as

- a. Regulator
- b. Switch
- c. Isolator
- d. a and b both

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 32 Question Id : 6782 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The zero level detector is one application of a

- a. Comparator
- b. Summing amplifier
- c. Integrator
- d. Differentiator

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 33 Question Id : 6783 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Received signal power in FM will _____, with increase in the transmission bandwidth.

- a. Increases
- b. Decrease
- c. Remain same
- d. First increases then decreases

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 34 Question Id : 6784 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The most common detector used in an AM radio broadcast receiver is:

- a. Coherent detector
- b. Envelope detector
- c. Ratio detector
- d. Discriminator

Options :

1. ✘ a
2. ✔ b
3. ✘ c
4. ✘ d

Question Number : 35 Question Id : 6785 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The area under the stress-strain plot (product of stress and strain) represents

- a. Hardness of the material
- b. Energy required to cause failure
- c. Rigidity of the material
- d. Flexibility of the material

Options :

1. ✘ a
2. ✔ b
3. ✘ c
4. ✘ d

Question Number : 36 Question Id : 6786 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The effective length of a h meter high column with one end fixed and other free is

- a. $2h$
- b. $0.5h$
- c. h
- d. $h/1.414$

Options :

1. ✔ a
2. ✘ b
3. ✘ c
4. ✘ d

Question Number : 37 Question Id : 6787 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

If a material shows different properties in different directions, then it is called as

- a. Isotropic
- b. Homogeneous
- c. Anisotropic
- d. Heterogeneous

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 38 Question Id : 6788 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The phenomenon of increase in stress with increase in strain beyond yielding is called as

- a. Plastic hinge formation
- b. Strain hardening
- c. Strain softening
- d. Yielding

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 39 Question Id : 6789 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The batching tolerance for aggregates as per IS 456 is

- a. $\pm 1\%$
- b. $\pm 1.5\%$
- c. $\pm 2\%$
- d. $\pm 3\%$

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 40 Question Id : 6790 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not used in calculating the area between the base line and the boundary line

- a. Mid-ordinate rule
- b. Simpson's rule
- c. Trapezoidal rule
- d. Prismoidal formula

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 41 Question Id : 6791 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The bearing of line in the direction of the progress of the survey is called as

- a. Forward bearing
- b. Reverse bearing
- c. Backward bearing
- d. Quadrilateral bearing

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 42 Question Id : 6792 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

According to IS 1200, reinforcing bars used in reinforced cement concrete shall be measured in

- a. meters
- b. cubic meter
- c. square meter
- d. litre

Options :

- 1. ✓ a
- 2. ✗ b

3. ✖ c

4. ✖ d

Question Number : 43 Question Id : 6793 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The net loading intensity at which neither the soil fails in shear nor there is excessive settlement detrimental to the structure is called as

- a. Allowable bearing capacity
- b. Safe bearing capacity
- c. Ultimate bearing capacity
- d. Net safe bearing capacity

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 44 Question Id : 6794 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Total float is the amount of time that a task in a project network can be delayed without causing a delay to the

- a. Subsequent tasks
- b. Milestone completion date
- c. Project completion date
- d. Subsequent project

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 45 Question Id : 6795 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The liquid limit of a soil can be determined in the lab with

- a. Venturimeter
- b. Vane shear apparatus
- c. Proctor's apparatus
- d. Casagrande's apparatus

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 46 Question Id : 6796 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The rapid development of rigidity in a freshly mixed Portland cement paste, mortar, or concrete, usually happens with the evolution of considerable heat. This rigidity cannot be dispelled, nor can the plasticity be regained, by further mixing without addition of water. This is called as

- a. False set
- b. Flash set
- c. Rigidity index
- d. Set acceleration

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 47 Question Id : 6797 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which one of the following decides the time of response of an indicating instrument

- a. Deflecting system
- b. Controlling system
- c. Damping system
- d. Pivot and jewel bearing

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 48 Question Id : 6798 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The following is not essential for the working of an indicating instrument

- a. Deflecting torque
- b. Braking torque
- c. Damping torque
- d. Controlling torque

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 49 Question Id : 6799 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Clamp on ammeter is used for

- a. Low ac current
- b. High ac current
- c. Low dc current
- d. High dc current

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 50 Question Id : 6800 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Volt box basically used for

- a. Measuring voltage
- b. Extending range of voltmeter
- c. Extending voltage range of the potentiometer
- d. Measuring power

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 51 Question Id : 6801 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The energy meter installed near the main switch in a residence and other locations is

- a. Indicating or deflecting type instrument
- b. Integrating type instrument
- c. Recording type instrument
- d. Absolute instrument

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 52 Question Id : 6802 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The energy flow in an ecosystem takes place through the food chain and it is

- a. multi directional flow
- b. unidirectional flow
- c. two way flow
- d. downward flow

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 53 Question Id : 6803 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The symptoms of protozoal infections are

- a. shigellosis
- b. leptospirosis
- c. gastrointestinal disorder
- d. infectious hepatitis

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 54 Question Id : 6804 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The mineral acidity in water is due to presence of

- a. dissolution of minerals
- b. dissolving of salts
- c. hydrolysis of multivalent cations
- d. addition mineral acids

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 55 Question Id : 6805 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The exposure of gaseous pollutant sulphur dioxide may cause

- a. bronchitis and pulmonary emphysema
- b. lungs failure and kidney damage
- c. gastrointestinal problem
- d. the irritation in alveoli of the lungs

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 56 Question Id : 6806 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The machine 'A' and machine 'B' produces equal noise levels, i.e., 60 dBA each. The summation of these two noise levels is

- a. 100 dBA
- b. 66 dBA
- c. 63 dBA
- d. 55 dBA

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 57 Question Id : 6807 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In stratosphere, the temperature increases with altitude due to presence of

- a. radicals
- b. chlorofluorocarbons
- c. HCFCs
- d. Ozone

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 58 Question Id : 6808 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

ROM is a _____

- a. Random access memory
- b. Sequential access memory
- c. Read and write memory
- d. Volatile memory

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 59 Question Id : 6809 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Virtual memory is a _____

- a. Volatile memory of unlimited capacity
- b. Non-volatile memory of unlimited capacity
- c. A technique to execute smaller programs into larger memory
- d. A technique to execute larger programs into smaller memory

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 60 Question Id : 6810 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Considering signed-magnitude representation for negative numbers, -42 will be stored into an 8-bit memory space as

- a. 10101010
- b. 10110111
- c. 10110010
- d. 10100001

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 61 Question Id : 6811 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Considering X and Y as binary variables, the equivalent Boolean expression for $Y(X + Y)$ is

- a. X
- b. Y
- c. XY
- d. $X + Y$

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 62 Question Id : 6812 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

‘COBOL’ is a _____

- a. Low-level programming language
- b. High-level programming language
- c. Assembly language
- d. Machine language

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 63 Question Id : 6813 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following statements is not correct?

- a. Interpreter is used to execute (interpret) high-level language programs
- b. Compiler is used to translate high-level language programs into machine codes
- c. Assembler is used to translate assembly language programs into machine codes
- d. Interpreter is used to execute (interpret) assembly language programs

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 64 Question Id : 6814 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of the following is not an Internet Service Provider (ISP) in India?

- a. BSNL
- b. Tata Consultancy Services (TCS)
- c. Reliance
- d. Airtel

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 65 Question Id : 6815 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of the following viruses spreads via malicious emails?

- a. Trj.Reboot
- b. Vienna
- c. JS.Fortnight
- d. Trivial.88.D

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 66 Question Id : 6816 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A microprocessor with 8-bit word length can process _____ bits data simultaneously.

- a. 4
- b. 8
- c. 16
- d. 32

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 67 Question Id : 6817 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The 15's complement of the hexadecimal number $(B0210)_{16}$ is

- a. $(4FDEF)_{16}$
- b. $(4FDF0)_{16}$
- c. $(50EF0)_{16}$
- d. $(40DE0)_{16}$

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 68 Question Id : 6818 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An area of 9 square kilometre is represented by 144 square centimetre on a map. The R. F. of the scale is

- a. $1/16$
- b. $1/1600$
- c. $1/2500$
- d. $1/25000$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 69 Question Id : 6819 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

When a pendulum oscillates, the curve traces out by a point moving along its string at a constant speed is known as

- a. circle
- b. spiral
- c. cycloid
- d. helix

Options :

- 1. ✘ a
- 2. ✔ b
- 3. ✘ c
- 4. ✘ d

Question Number : 70 Question Id : 6820 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

If top view of a line is a point, its front view is

- a. Perpendicular to reference line and of true length
- b. Perpendicular to reference line and of apparent length
- c. Parallel to reference line and of true length
- d. Parallel to reference line and of apparent length

Options :

- 1. ✔ a
- 2. ✘ b
- 3. ✘ c
- 4. ✘ d

Question Number : 71 Question Id : 6821 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

In an orthographic projection, the elevation obtained on a plane is

- a. horizontal
- b. auxiliary
- c. vertical
- d. profile

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 72 Question Id : 6822 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

While making isometric projection, the ellipse is preferably drawn by

- a. concentric circles method
- b. four centre method
- c. parallelogram method
- d. oblong method

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 73 Question Id : 6823 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An object is moving with constant velocity. The net force acting on the object is given by

- a. $F = m g$
- b. $F = 0$
- c. $F = m v$
- d. $F = v^2/2m$

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 74 Question Id : 6824 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An object of mass 1.6 kg is taken to the surface of a planet of radius 4×10^6 m. There the weight of the object is found to be 66.7 N. The mass of the planet is ($G = 6.67 \times 10^{-11} \text{ N m}^2/\text{kg}^2$)

- a. $1.6 \times 10^{25} \text{ kg}$
- b. $8.0 \times 10^{24} \text{ kg}$
- c. $1.0 \times 10^{25} \text{ kg}$
- d. $2.0 \times 10^{25} \text{ kg}$

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 75 Question Id : 6825 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Govind pushes a cart 5 m on a level surface by applying a 49 N force horizontally. If a frictional force of 26 N acts on the cart, the net work done is

- a. 115 J
- b. 375 J
- c. 130 J
- d. 245 J.

Options :

- 1. ☒ a
- 2. ☐ b
- 3. ☐ c
- 4. ☐ d

Question Number : 76 Question Id : 6826 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A periodic SHM is given by $y = 6 \sin(\pi t)$ m, where t is in seconds. The period of the system is

- a. 3 m
- b. 2 Hz
- c. 2 s
- d. 0.5 s.

Options :

- 1. ☐ a
- 2. ☐ b
- 3. ☒ c
- 4. ☐ d

Question Number : 77 Question Id : 6827 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If atmospheric refraction did not occur, which of the following statements about apparent time of sunrise and sunset is correct?

- a. Sunrise would be later and sunset earlier.
- b. Sunrise would be earlier and sunset later.
- c. Both would be earlier
- d. Both would be later.

Options :

- 1. ☒ a
- 2. ☐ b
- 3. ☐ c
- 4. ☐ d

Question Number : 78 Question Id : 6828 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Consider a conductor of area of cross-section A , length l and volume V . When a current I flows through it, heat is produced at a rate given by $I^2 R$. If j is the current density and ρ the resistivity, the rate at which heat is produced per unit volume of the conductor is

- a. j/ρ
- b. $j^2 \rho$
- c. Vj
- d. V^2/ρ

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 79 Question Id : 6829 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

. When we move from top to bottom in a group of periodic tables. There will be variation in the properties of the elements. If we move from top to bottom in group 17,

- a. Electrons gravity will increase
- b. Stability of hydroxides will increase
- c. Ionic radii will increase
- d. Ionization enthalpy will increase

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 80 Question Id : 6830 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If Rydberg constant is $1.0968 \times 10^7 \text{ m}^{-1}$, the wavelength of light emitted when a hydrogen atom changes from $n=5$ to the $n=3$ state, will be

- a. $1.2821 \times 10^{-5} \text{ m}$
- b. $1.2821 \times 10^{-6} \text{ m}$
- c. $2.430 \times 10^{-5} \text{ m}$
- d. $3.2821 \times 10^{-6} \text{ m}$

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 81 Question Id : 6831 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Combustion of methane taken place in air. The number of moles of methane required to produce 66.0 g of $\text{CO}_2(\text{g})$ will be

- a. 1.0 mol
- b. 1.5 mol
- c. 2.5 mol
- d. 3.0 mol

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 82 Question Id : 6832 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A solution is prepared by mixing 50 mL of 0.20M NaCl, 25 mL of 0.10M NaOH and 25mL of 0.30M HCl. The concentration of hydrogen ions (H^+ ion) IN solution thus obtained will be

- a. 0.5 M
- b. 0.02 M
- c. 0.10 M
- d. 0.05 M

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 83 Question Id : 6833 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A flux is often added to remove impurities from an ore in a blast furnace. In the reaction, $\text{CaO} + \text{SiO}_2 \rightarrow \text{CaSiO}_3$, the slag and the flux are respectively

- a. CaSiO_3 and CaO
- b. CaO and SiO_2
- c. CaSiO_3 and SiO_2
- d. SiO_2 and CaSiO_3

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 84 Question Id : 6834 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

You are given following compounds.

$\text{C}_6\text{H}_5\text{OH}$, $\text{C}_2\text{H}_5\text{OH}$, HCOOH AND CH_3COOH

The correct order of decreasing acidity of these compounds will be,

- $\text{HCOOH} > \text{CH}_3\text{COOH} > \text{C}_6\text{H}_5\text{OH} > \text{C}_2\text{H}_5\text{OH}$
- $\text{CH}_3\text{COOH} > \text{HCOOH} > \text{C}_2\text{H}_5\text{OH} > \text{C}_6\text{H}_5\text{OH}$
- $\text{CH}_3\text{COOH} > \text{C}_2\text{H}_5\text{OH} > \text{HCOOH} > \text{C}_6\text{H}_5\text{OH}$
- $\text{C}_6\text{H}_5\text{OH} > \text{C}_2\text{H}_5\text{OH} > \text{HCOOH} > \text{CH}_3\text{COOH}$

Options :

- ☒ a
- ☐ b
- ☐ c
- ☐ d

Question Number : 85 Question Id : 6835 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The scientific name of modern day humans

- Homo sapiens sapiens
- Homo sapiens neanderthalensis
- Homo erectus
- Homo sapiens fossilis

Options :

- ☒ a
- ☐ b
- ☐ c
- ☐ d

Question Number : 86 Question Id : 6836 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

One among the following does not cause air, water or soil pollution

- Oil leaked in the ocean from tankers
- Pesticides and fertilizers washed into lakes and ponds from fields
- Greenhouse gases released into the atmosphere by industries and automobiles
- Bacteria living in the roots of plants like peas and beans

Options :

- ☐ a
- ☐ b
- ☐ c
- ☒ d

Question Number : 87 Question Id : 6837 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is not true of reptiles? They

- a. lay eggs
- b. have mammary glands
- c. skin covered with scales
- d. are related to dinosaurs

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 88 Question Id : 6838 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An animal like the amoeba does not have a mouth. How does it capture food? With the help of

- a. Plasma membrane
- b. Pseudopodia
- c. Food vacuole
- d. Ectoplasm

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 89 Question Id : 6839 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is not true about plants?

- a. They do not respire
- b. They make food from water and Carbon-di-oxide
- c. Their roots absorb water from soil
- d. Flowers are their reproductive organs

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 90 Question Id : 6840 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Algal bloom is when lot of algae suddenly grow in a water body due to

- a. Global warming
- b. Pesticides from fields washed into it
- c. Fertilisers from fields washed into it
- d. Ozone hole

Options :

1. ✗ a
2. ✗ b
3. ✓ c
4. ✗ d

Question Number : 91 Question Id : 6841 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

When a number is divided by 2,3,4,5 or 6 remainder in each case is 1, but the number is exactly divisible by 7. If the number lies between 250 and 350 , the sum of digits of the number is

- a. 10
- b. 7
- c. 5
- d. 4

Options :

1. ✗ a
2. ✗ b
3. ✗ c
4. ✓ d

Question Number : 92 Question Id : 6842 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Let $m=2^{13} \times 3^{10} \times 13^8$, $n=2^{12} \times 3^{10} \times 13^{10}$

$p=3^8 \times 2^{10} \times 13^{10}$ and $q=3^8 \times 13^9 \times 2^{12}$

LCM of m, n, p and q is

- a. $2^{13} \times (39)^{10}$
- b. $2^{10} \times (39)^8$
- c. $(26)^{10} \times 3^{10}$
- d. $(13)^{10} \times 6^{13}$

Options :

1. ✓ a
2. ✗ b
3. ✗ c
4. ✗ d

Question Number : 93 Question Id : 6843 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If 48 % of $(x+y)$ =60% of $(x-y)$, than what percent of y is x?

- a. $8\frac{2}{9}$
- b. $10\frac{1}{9}$
- c. $11\frac{1}{9}$
- d. $22\frac{2}{9}$

Options :

1. ✗ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 94 Question Id : 6844 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If $A:B=1:2$, $B:C=3:2$ and $C:D=8:9$, then $A:D$ is

a. 4:3

b. 2:3

c. 1:3

d. 4:9

Options :

1. ✖ a

2. ✔ b

3. ✖ c

4. ✖ d

Question Number : 95 Question Id : 6845 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The ratio of expenditures of A, B and C are in the ratio 12:16:9 and their savings are 25% and 40% of their respective incomes. If their total income is Rs.160650, then the income of B is (in Rs.)

a. 47250

b. 37800

c. 50400

d. 63000

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 96 Question Id : 6846 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The contents of two vessels A and B containing water and spirit are in the ratio 1:2 and 3:4 respectively are mixed in the ratio 1:4. The approximate percentage of water in the resulting mixture is

a. 33

b. 41

c. 4

d. 45

Options :

1. ✖ a

2. ✔ b

3. ✖ c

4. ✖ d

Question Number : 97 Question Id : 6847 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Nine litres are drawn from a vessel full of water and the vessel is filled up with equal quantity of (diluted) sulphuric acid. This process is repeated one more time .if now the solution in the vessel has water and acid in the ratio of 16:9, then the capacity (in liters) of the vessel is

- a. $22\frac{1}{2}$
- b. 45
- c. 30
- d. 60

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 98 Question Id : 6848 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A certain sum of money is borrowed at compound interest for 3 years at 5% per annum. The interest for the third year is greater than that of second year by Rs.642.60. the sum (in Rs.) borrowed is

- a. 24480
- b. 185400
- c. 244800
- d. 368400

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 99 Question Id : 6849 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A sum of Rs.129780 is to be paid back in three equal half yearly installments. If the interest is compounded half yearly at the rate of $13\frac{1}{3}\%$ per annum, then each installment is of Rs.

- a. 44690
- b. 45960
- c. 46080
- d. 49152

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 100 Question Id : 6850 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A person sells an object at 25% profit .If he buys it at 25% less and sells Rs.250 less, then he gets a profit of 25%. The original cost price (in Rs.) of the object is

- a. 640
- b. 720
- c. 800
- d. 960

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 101 Question Id : 6851 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A person sells an article at a certain price. Had he sold it at three – fifth of that price, he would have lost 10%. His gain percent is

- a. 30
- b. 40
- c. 50
- d. 60

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 102 Question Id : 6852 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Points X and Y are 70 km. apart on a highway. A car(p)starts from X and another (Q) starts from y at the same direction (x to y) they meet in 7 hours, but if they travel towards each other, they meet in one hour. Ratio of the speed of P to that of Q is

- a. 4:3
- b. 5:2
- c. 2:1
- d. 3:2

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 103 Question Id : 6853 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A man started 30 minutes late and travelling at a speed of $1\frac{2}{3}$ times of his usual speed reaches his office in time. The time taken by him to reach his office at his usual speed is

- a. 1 hour
- b. 1.25 hrs
- c. 1.50 hrs
- d. 1.67 hrs

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 104 Question Id : 6854 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

8 men and 12 women can do a piece of work in 5 days, while 6 men and 8 women can do it in 7 days. The time (in days) taken by two women and one man to do the same work is

- a. 21
- b. 28
- c. 35
- d. 40

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 105 Question Id : 6855 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Two pipes X and Y can fill a tank in 15 and 20 minutes respectively. If both the pipes are opened together after how much time pipe y should be turned off so that the tank is full in 12 minutes?

- a. 3 minutes
- b. 4 minutes
- c. 5 minutes
- d. 6 minutes

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 106 Question Id : 6856 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The average of the test scores of a class of x students is 70 and that of y students is 91. If the scores of both the classes are combined, the average is 80.

The value of $\frac{2x+5y}{5x-4y}$ is

- a. $\frac{11}{10}$
- b. $\frac{33}{10}$
- c. $\frac{24}{5}$
- d. $\frac{26}{5}$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 107 Question Id : 6857 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The average of n numbers is x . If the first number is decreased by 1, second is decreased by 2, third is decreased by 3 and so on, then their average is y . The value of $x-y$ is

- a. $\frac{n(n-1)}{2}$
- b. $\frac{n+1}{2}$
- c. $\frac{n(n+1)}{2}$
- d. $\frac{n-1}{2}$

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 108 Question Id : 6858 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the equation $(2k-1)x^2-8x+6=0$ has no real roots, then the smallest integral value of k is

- a. -1
- b. -2
- c. 2
- d. 3

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 109 Question Id : 6859 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the negative of one of the roots of $x^2-3x+m=0$ is a root of $x^2+3x-m=0$, then roots of $x^2-3x+m=0$ are

- a. -1, 1
- b. -1, 2
- c. 0, 3
- d. 1, -3

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 110 Question Id : 6860 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

One of the factors of $4x^3+12x^2-x-3$ is

- a. $x-3$
- b. $x+1$
- c. $x-1$
- d. $x+3$

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 111 Question Id : 6861 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The expression $(a+b+c)(ab+b+ca)-abc$ is factored as

- a. $(a+b)(b+c)(c+a)$
- b. $(a-b)(b-c)(c-a)$
- c. $(a+b)(b-c)(c-a)$
- d. $(a-b)(b+c)(c+a)$

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 112 Question Id : 6862 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The sum of first n terms of two arithmetic series are in ratio $(7n+1) : (4n+27)$. The ratio of their 11th terms is

- a. 3:4
- b. 4:3
- c. 29:47
- d. 47:29

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 113 Question Id : 6863 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The sum of first n terms of a geometric series is $(2^n - 1)/3$. Its common ratio is

- a. $\frac{1}{2}$
- b. $\frac{2}{3}$
- c. 3
- d. 2

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 114 Question Id : 6864 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The expression $\tan^2\theta + \cot^2\theta - \sec^2\theta \operatorname{cosec}^2\theta$ is equal to

- a. 0
- b. 1
- c. -1
- d. -2

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 115 Question Id : 6865 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Two poles of equal height stand on either side of a roadway which is 100m wide. At a point in the roadway between the poles, the elevation of the tops of the poles are 60° and 30° . the height of each pole, in meter is

- a. $25\sqrt{3}$
- b. $50\sqrt{3}$
- c. $25(\sqrt{3} - 1)$
- d. $25(\sqrt{3} + 1)$

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 116 Question Id : 6866 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which art form is common in the Eddakal caves, Bhimbetka, and Lakhudiyar caves.

- a. Depiction of farming in paintings
- b. Use of ochre and limestone for art
- c. Stone Age rock art evidence
- d. Depiction of hunting scenes.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 117 Question Id : 6867 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which Gupta ruler does the historian Vincent Smith call 'The Napoleon of India'?

- a. Samudragupta
- b. Chandrgupta 1
- c. Chandragupta II
- d. Skanda Gupta

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 118 Question Id : 6868 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

From which city was the Quit India movement launched and when ?

- a. 1940 Kolkatta
- b. 1952 Delhi
- c. 1931 Madras (Chennai)
- d. 1942 Mumbai

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 119 Question Id : 6869 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If a layer of soft rock like sandstone underlies granite or basalt , which feature will be formed ?

- a. Rock Face
- b. Waterfall
- c. Gorge
- d. Valley

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 120 Question Id : 6870 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What will be the likely effect on rains in India if a cyclonic depression develops into a storm in the Arabian Sea?

- a. Monsoon weakens
- b. SW monsoon changes direction
- c. Rainfall increases on Gujarat coast
- d. Monsoons come sooner.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 121 Question Id : 6871 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the only plantation crop in which foreign direct investment is permitted so far?

- a. Coconut
- b. Tea
- c. Rubber
- d. Jute

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 122 Question Id : 6872 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the relationship between Fundamental Rights and Duties and the Directive Principles of State Policy?

- a. Directive Principles must agree with Fundamental Rights
- b. Each State can choose which Directive Principles of State policy
- c. More importance of Fundamental Rights
- d. Freedom of the individual cannot be affected.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 123 Question Id : 6873 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

As a part of which Right can any citizen choose to settle in any part of the country?

- a. Right to Freedom
- b. Right to Constitutional Remedies
- c. Right to Equality
- d. Right to Property.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 124 Question Id : 6874 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the term used to describe the moneylender, support groups, cooperatives in the rural economy?

- a. Social Capital
- b. Financial Capital
- c. Human capital
- d. Physical capital

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 125 Question Id : 6875 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following areas has the largest number of sunny days which is an ideal condition for solar power generation ?

- a. West Coast
- b. East Coast
- c. Northern India
- d. Himalaya

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 126 Question Id : 6876 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In which sector in India is E – commerce has grown the fastest in India ?

- a. Luxury goods
- b. Farm goods
- c. Groceries
- d. Travel Booking

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 127 Question Id : 6877 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Who is the present captain of the Men's Indian Hockey team at present?

- a. Dilip Tirkey
- b. Balbir Singh
- c. Sardar Singh
- d. Pangat Singh

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 128 Question Id : 6878 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the distinguishing feature of the Commonwealth Games ?

- a. It is held once in 5 years
- b. All countries participate.
- c. United Kingdom leads procession
- d. English is the language of communication

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 129 Question Id : 6879 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Along which of the deep sea routes has there been a decline in trade 2005- 2015?

- a. Intra Asian Routes.
- b. Trans Pacific route .
- c. Asia Europe routes.
- d. Asia Africa Routes .

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 130 Question Id : 6880 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which three countries are collaborating with India to build Smart cities ?

- a. France, Singapore and Japan
- b. China, Singapore and Japan
- c. Japan , Russia and France
- d. France, Germany and USA.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 131 Question Id : 6881 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the latest area in which ISRO has developed expertise in ?

- a. Hazard Prediction
- b. Distance Education
- c. Radio telecasting
- d. Tele medicine

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 132 Question Id : 6882 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Why does one get a sinking feeling when going down a elevator?

- a. Weightlessness on our body.
- b. Speed is more than gravity.
- c. Our body has no support.
- d. Our muscles become slow.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 133 Question Id : 6883 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What causes the light of street lamp to look as if it has dark and light patches?

- a. Infraction
- b. Diffraction
- c. Refraction
- d. Infusion.

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 134 Question Id : 6884 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

When a load of 1 kg is suspended by a long wire the length of the wire increases by 1.0 mm. What does its radius would change by?

- a. 0.1%
- b. 2 %
- c. 1 %
- d. 0.2 %

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 135 Question Id : 6885 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following gases is used in refrigerators?

- a. Flurochlorocarbon
- b. Ammonia
- c. Carbon dioxide
- d. Oxygen

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 136 Question Id : 6886 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

To realize the EURO standards the sulphur level in diesel needs to be

- a. 0.003
- b. 0.004
- c. 0.032
- d. 0.001

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 137 Question Id : 6887 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The formation of which acid makes milk turn sour when kept in the open for some time?

- a. Acetic Acid
- b. Citric Acid
- c. Lactic Acid
- d. Carbonic Acid

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 138 Question Id : 6888 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is a gamete?

- a. Cell with both dominant and recessive genes.
- b. Reproductive cell with many traits.
- c. Cells that cannot be reproduced.
- d. Sperms which can be used for fertilisation.

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 139 Question Id : 6889 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which blood cells help to destroy damaged cells?

- a. Monocytes
- b. Leucocytes
- c. Lymphocytes
- d. Platelets

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 140 Question Id : 6890 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

What does a diet of meat, fish and dairy products give to the human body?

- a. Niacin
- b. Vitamin C
- c. Vitamin E
- d. Vitamin B 12

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 141 Question Id : 6891 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

A girl says, 'The son of the father of my brother's sister's mother won a lottery.' She is the winner's

- a. Mother
- b. Aunt
- c. Niece
- d. Sister

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 142 Question Id : 6892 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

PERTH : KVIGS :: CAIRO : ?

The letters of the word PERTH are related to those of KVIGS in a certain way. The same relationship holds for the second pair of terms on the right side of the :: sign of which one is missing. Find the missing one from the alternatives.

- a. XZRIL
- b. XYRIL
- c. YZRIL
- d. XZRIM

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 143 Question Id : 6893 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What will be the 3rd term in the series
702, 687, ..., 663, 654, 647, 642, 639, ...

- a. 676
- b. 674
- c. 672
- d. 675

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 144 Question Id : 6894 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the missing term in the following sequence of letter clusters?
SAG, TEF, ..., WOC, XUB, YAZ, ZEY, BIX

- a. VID
- b. UIE
- c. VIE
- d. UID

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 145 Question Id : 6895 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the odd number-pair?

- a. 29 – 39
- b. 37 – 47
- c. 53 – 63
- d. 11 – 21

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 146 Question Id : 6896 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a language, *rib el can* means 'fresh lime soda', *cip can roh* means 'soda and ice' and *coc rib roh* means 'lime and sugar'. Which of the following does not stand for 'lime', 'soda' or for 'sugar'?

- a. can
- b. rib
- c. coc
- d. cip

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 147 Question Id : 6897 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The code for EASTER in a language is 050119200518. What would be the code for CHRISTMAS?

- a. 030818091920130119
- b. 03081809192013018
- c. 030818091820130119
- d. 030818091921130119

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 148 Question Id : 6898 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

You are given 10 litres of water in a 12 litre can and two empty cans of 5 litres and 3 litres capacity. What is the least number of 'transfers' of water required so as to measure exactly four litres of water in the 5-litre can and 6 litres in the other two together? (A 'transfer' involves pouring of any quantity of water from one can to another. Assume that no water is wasted.)

- a. 4
- b. 5
- c. 6
- d. 3

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 149 Question Id : 6899 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Getting out of his house which faces South, a doctor walked 50 meters before turning left and walking 30 meters. Thereafter he turned right and walked 40 meters more. Turning to his right and walking straight ahead, he reached the hospital. In which direction did he walk the last lap?

- a. North to South
- b. South to North
- c. West to East
- d. East to West

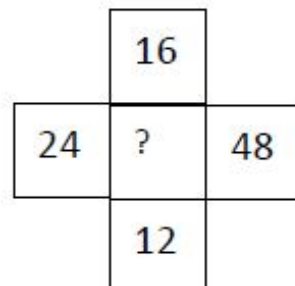
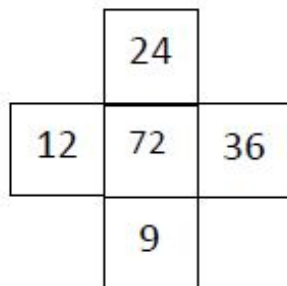
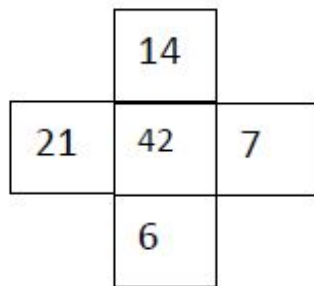
Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 150 Question Id : 6900 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Choose the number missing in the third cross:



- a. 48
- b. 64
- c. 84
- d. 96

Options :

1. ✓ a
2. ✗ b
3. ✗ c
4. ✗ d

aglasem