

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 3rd Sep Shift 2 Actual
Subject Name:	Senior Section Engineer
Creation Date:	2015-08-31 13:39:25.0
Cut Off:	0
Duration:	120
Number of Questions:	150
Total Marks:	150.0

Senior Section Engineer	
Group Number :	1
Group Id :	41
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 :	41
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:	41
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 7501 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which one of the following statements is correct?

- a. The slope of vaporisation curve is always negative.
- b. The slope of vaporisation curve is always positive.
- c. The slope of sublimation curve is negative for all pure substances.
- d. The slope of fusion curve is positive for all pure substances.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 2 Question Id : 7502 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If a process can be stopped at any stage and reversed so that the system and surroundings are exactly restored to their initial states, it is known as:

- a. Adiabatic process
- b. Isothermal process
- c. Ideal process
- d. Frictionless process

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 3 Question Id : 7503 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The work ratio of closed cycle gas turbine plant depends upon:

- a. pressure ratio of the cycle and specific heat ratio
- b. temperature ratio of the cycle and specific heat ratio
- c. pressure ratio, temperature ratio and specific heat ratio
- d. only on pressure ratio

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 4 Question Id : 7504 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is the worst conductor of heat in the group?

- a. air
- b. plastic
- c. vaccum
- d. aluminum

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 5 Question Id : 7505 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The predominant method of heat transfer that causes a pot of water to boil is:

- a. conduction
- b. radiation
- c. convection
- d. boiling

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 6 Question Id : 7506 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The fact that, in general, liquids and gases expand when heated gives rise to

- a. convection currents in fluids due to changing masses.
- b. convection currents in fluids due to changing densities.
- c. heat transfer by conduction.
- d. convection currents in fluids due to constant temperatures.

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 7 Question Id : 7507 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which amongst the following has the maximum power?

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

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 8 Question Id : 7508 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Working cycle of SI engine is:

- a. Otto cycle
- b. Diesel cycle
- c. Ericson cycle
- d. Brayton cycle

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 9 Question Id : 7509 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following has the highest efficiency?

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

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 10 Question Id : 7510 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which amongst the following has the highest calorific value?

- a. Diesel
- b. Petrol
- c. Hydrogen
- d. Methane

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 11 Question Id : 7511 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

_____ is an added projection on a pattern and forms a seat to support and locate the core in the mould.

- a. Mould print
- b. Core print
- c. Drag
- d. Cope

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 12 Question Id : 7512 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The amount a tool moves per revolution of the work is known as:

- a. cutting feed
- b. depth of cut
- c. feed
- d. machining time

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 13 Question Id : 7513 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Ductile cast iron contains carbon % as

- a. 0.3 to 0.5%
- b. 0.5 to 3.0%
- c. 3.2 to 4.2%
- d. 4.2% to 6.0%

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 14 Question Id : 7514 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In electric arc welding, the arc is approximately at a temperature of

- a. 800 °C – 1000 °C
- b. 2000 °C
- c. 3000 °C
- d. 4000 °C

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 15 Question Id : 7515 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The winding used in 3-phase shell type transformer is _____ type.

- a. Circular
- b. Cylindrical
- c. Sandwich
- d. Rectangular

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 16 Question Id : 7516 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Five limb core construction is preferred over three limb construction because in this type of construction:

- a. Hysteresis loss is reduced
- b. Eddy current loss is reduced
- c. Magnetic reluctance of the three phases can be balanced
- d. Copper losses can be reduced

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 17 Question Id : 7517 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The most common method of cooling employed in power transformer is:

- a. Oil natural
- b. Natural cooling
- c. Air cooling
- d. Air-blast cooling

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 18 Question Id : 7518 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following transformer connections will give the highest secondary voltage?

- a. Delta primary, delta secondary
- b. Delta primary, star secondary
- c. Star primary, delta secondary
- d. Star primary, star secondary

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 19 Question Id : 7519 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Major insulation in a transformer is the insulation between the:

- a. LV winding and core
- b. LV winding and HV winding
- c. Turns of the windings
- d. Both (a) and (b)

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 20 Question Id : 7520 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The transformer oil should have:

- a. High volatility
- b. High viscosity
- c. High dielectric strength
- d. Low viscosity

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 21 Question Id : 7521 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The transformer core laminations are insulated from each other by:

- a. Paper
- b. Thin varnish coating
- c. Mica strip
- d. Glass

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 22 Question Id : 7522 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For minimum weight of the transformer, the iron weight should be _____ the weight of the copper.

- a. More than
- b. Equal to
- c. Less than
- d. No relation

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 23 Question Id : 7523 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What kVA rating is required for a transformer that must handle a maximum load current of 8 A with a secondary voltage of 2 kV?

- a. 4 kVA
- b. 0.25 kVA
- c. 16 kVA
- d. 8 kVA

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 24 Question Id : 7524 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

When the turns ratio of a transformer is 20 and the primary ac voltage is 12 V, the secondary voltage is:

- a. 12 V
- b. 120 V
- c. 240 V
- d. 2,400 V

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 25 Question Id : 7525 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Two resistors are in parallel. Resistor A carries twice the current of resistor B, which means that:

- a. the voltage across B is twice that across A
- b. the voltage across A is twice that across B
- c. A has half the resistance of B
- d. B has half the resistance of A

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 26 Question Id : 7526 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

What determines the inductance of a coil?

- a. The core material, the number of turns used to wind the core and the frequency of the current through the coil.
- b. The core material, the core diameter, the length of the coil and the number of turns of wire used to wind the coil.
- c. The core diameter, the number of turns of wire used to wind the coil and the type of metal used for the wire.
- d. The core material, the core diameter, the length of the coil and whether the coil is mounted horizontally or vertically.

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 27 Question Id : 7527 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

To replace a faulty 10 millihenry choke, you could use:

- a. Two 20 millihenry chokes in series
- b. Two 5 millihenry chokes in series
- c. Two 30 millihenry chokes in parallel
- d. Two 5 millihenry chokes in parallel

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c

4. ✖ d

Question Number : 28 Question Id : 7528 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The reactance of capacitors increases as:

- a. applied voltage increases
- b. AC frequency increases
- c. applied voltage decreases
- d. AC frequency decreases

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 29 Question Id : 7529 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If no load is attached to the secondary winding of a transformer, what is the current in the primary winding called?

- a. Magnetizing current
- b. Direct current
- c. Excitation current
- d. Stabilizing current

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 30 Question Id : 7530 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The strength of the magnetic field around a conductor in air is:

- a. inversely proportional to the diameter of the conductor.
- b. directly proportional to the diameter of the conductor.
- c. directly proportional to the current in the conductor.
- d. inversely proportional to the voltage on the conductor.

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 31 Question Id : 7531 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Resonance is an electrical property used to describe:

- a. an inductor
- b. a set of parallel inductors
- c. the results of tuning a varicap (varactor)
- d. the frequency characteristic of a coil and capacitor circuit

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 32 Question Id : 7532 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

When will a power source deliver maximum output to the load?

- a. When air wound transformers are used instead of iron-core transformers
- b. When the power-supply fuse rating equals the primary winding current
- c. When the impedance of the load is equal to the impedance of the source
- d. When the load resistance is infinite

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 33 Question Id : 7533 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A circuit designed to increase the level of its input signal is called:

- a. an amplifier
- b. a modulator
- c. an oscillator
- d. a receiver

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 34 Question Id : 7534 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is NOT amplified by an amplifier?

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

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 35 Question Id : 7535 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Concrete in a member represented by a core test shall be considered acceptable, if the average equivalent cube strength of the cores is equal to at least X% of the corresponding cube strength. What is the value of X?

- a. 70
- b. 75
- c. 80
- d. 85

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 36 Question Id : 7536 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The numerical difference between the plastic limit and shrinkage limit of a remoulded sample is called as:

- a. Plasticity index
- b. Shrinkage index
- c. Differential shrinkage
- d. Shrinkage ratio

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 37 Question Id : 7537 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The stress below which a material regains its original size and shape when the load is removed is called as:

- a. Failure stress
- b. Shrinkage limit
- c. Plastic limit
- d. Elastic limit

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 38 Question Id : 7538 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The process in which a stress applied to a soil causes densification as air is displaced from the pores between the soil grains is called as:

- a. Consolidation
- b. Liquefaction
- c. Compaction
- d. Settlement

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 39 Question Id : 7539 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following supplementary cementitious materials have self-cementing properties?

- a. Class F fly ash
- b. Silica Fume
- c. Rice husk ash
- d. Ground-granulated blast furnace slag

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 40 Question Id : 7540 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In general, surface tension

- a. remains unaffected by temperature up to critical temperature
- b. remains unaffected by temperature
- c. increases with increase in temperature
- d. decreases with increase of temperature

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 41 Question Id : 7541 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The line joining the intersection of the cross hairs to the optical centre of the object glass and its continuation is called as:

- a. Line of collimation
- b. Telescopic axis
- c. Vertical axis
- d. Horizontal axis

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 42 Question Id : 7542 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

According to IS 1200, during demolition and dismantling, the concrete and brick roofs and floors shall be measured in:

- a. meter
- b. cubic meter
- c. square metres
- d. thickness

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 43 Question Id : 7543 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The behaviour shown by some materials by virtue of which, as the shear stress reduces continuously with the development in the plastic strain is called as:

- a. Yielding
- b. Strain softening
- c. Strain hardening
- d. Plasticity

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 44 Question Id : 7544 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The imaginary surface connecting points to which water would rise in tightly cased wells from a given point in an aquifer is called as:

- a. Specific surface
- b. Phreatic surface
- c. Potentiometric surface
- d. Normal surface

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 45 Question Id : 7545 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of the following is not applicable to pile foundations?

- a. Piles transfer load to stratum of adequate capacity
- b. Piles resist lateral loads
- c. Piles transfer through a scour zone to bearing stratum
- d. Piles do not anchor structures subjected to hydrostatic uplift

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 46 Question Id : 7546 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Normally, the consistency of cement is measured using:

- a. Le Chatelier's apparatus
- B Blaine's permeameter
- c. Vicat apparatus
- d. Venturimeter

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 47 Question Id : 7547 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Use of high permeability core in moving iron instrument helps in

- a. reducing size of meter
- b. increasing sensitivity
- c. reducing temperature error
- d. reducing losses

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 48 Question Id : 7548 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Shaft encoder is used to measure:

- a. angular position
- b. linear position
- c. linear velocity
- d. linear acceleration

Options :

- 1. ✔ a
- 2. ✘ b
- 3. ✘ c
- 4. ✘ d

Question Number : 49 Question Id : 7549 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following devices has the highest photo sensitivity?

- a. Photoconductive cell
- b. Photovoltaic cell
- c. Photodiode
- d. Phototransistor

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 50 Question Id : 7550 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Two meters X and Y require 40 mA and 50 mA for full scale deflection. Which of the following is correct?

- a. X is more sensitive.
- b. Y is more sensitive.
- c. Both are equally sensitive.
- d. It is not possible to determine the relation between the sensitivity of the meters from the given data.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 51 Question Id : 7551 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A dual trace CRO has:

- a. one electron gun
- b. two electron guns
- c. one electron gun with one two pole switch
- d. two electron guns with one two pole switch

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 52 Question Id : 7552 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The organism uses gaseous mixture containing oxygen, nitrogen and carbon dioxide to liberate:

- a. chemicals
- b. chemical energy
- c. biochemical energy
- d. heat energy

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 53 Question Id : 7553 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The alkalinity is expressed in terms of:

- a. mg/l equivalent CaCO_3
- b. mg/l equivalent $\text{N}/50 \text{ H}_2\text{SO}_4$
- c. mg/l equivalent phenolphthalein
- d. mg/l equivalent bromocresol green

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 54 Question Id : 7554 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The desirable amount of fluoride ions in potable waters for optimal dental health is:

- a. 1.5 mg/l
- b. 1.0 mg/l
- c. 0.5 mg/l
- d. 0.05 mg/l

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 55 Question Id : 7555 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not considered as secondary pollutant?

- a. Photochemical smog
- b. Peroxy acetyl nitrate
- c. Acid mist
- d. Carbon monoxide

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 56 Question Id : 7556 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In the statistical distribution of noise levels, the back ground noise level is represented by:

- a. L_{90}
- b. L_{50}
- c. L_{10}
- d. L_1

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 57 Question Id : 7557 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Acid rain is caused due to formation of:

- a. sulphuric acid and carbonic acid in the atmosphere
- b. sulphuric acid and nitric acid in the atmosphere
- c. nitric acid and carbonic acid in the atmosphere
- d. sulphuric acid, nitric acid and carbonic acid in the atmosphere

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 58 Question Id : 7558 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Program Counter (PC) register is an integral part of:

- a. Hard Disk
- b. RAM
- c. Cache memory
- d. CPU

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 59 Question Id : 7559 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Number of bits needed to code 256 operations is:

- a. 4
- b. 6
- c. 8
- d. 16

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 60 Question Id : 7560 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

When power is turned on _____ takes control and does power-on-self-test.

- a. BIOS
- b. ALU
- c. CU
- d. RAM

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 61 Question Id : 7561 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The time interval between the time at which a read/write command is given to the memory and the time when next such instruction can be issued to the memory is called:

- a. Access time
- b. Cycle time
- c. Write time
- d. Seek time

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 62 Question Id : 7562 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The default alignment of texts in MS-Excel is:

- a. Left
- b. Right
- c. Centre
- d. Justify

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 63 Question Id : 7563 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Functional language is also known as:

- a. Procedural language
- b. Non-procedural language
- c. Imperative language
- d. Low-level language

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 64 Question Id : 7564 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a binary number, the leftmost bit is called:

- a. Most significant bit
- b. Least significant bit
- c. Carry bit
- d. Extra bit

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 65 Question Id : 7565 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In Boolean Algebra, $A(A + B')$ is equivalent to:

- a. 0
- b. 1
- c. A
- d. B

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 66 Question Id : 7566 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Telnet service enables an internet user for:

- a. File transfer
- b. Booting remote computer
- c. Remote login
- d. User account creation on remote computer

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 67 Question Id : 7567 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not a Web browser?

- a. Chrome
- b. FireFox
- c. MacWeb
- d. FTP

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✘ c
- 4. ✔ d

Question Number : 68 Question Id : 7568 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

One "end point" of a straight line lies in *First Quadrant* and the other in the *Third Quadrant*. The line passes through:

- a. Second Quadrant
- b. Fourth Quadrant
- c. Either Second or Fourth Quadrant
- d. It will not pass through either of these two quadrants.

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 69 Question Id : 7569 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Commonly used gear teeth profiles are _____ in shape.

- a. Elliptical
- b. Cycloidal
- c. Involute
- d. either Involute or cycloidal

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✘ c
- 4. ✔ d

Question Number : 70 Question Id : 7570 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

. When a quantity represented in two different measuring unit systems is to be measured, which type of scale is used?

- a. diagonal scale
- b. comparative scale with different RF
- c. comparative scale with same RF
- d. vernier scale

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 71 Question Id : 7571 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The *eccentricity* of a *parabola* is equal to:

- a. less than **One**
- b. greater than **One**
- c. **One**
- d. There is no term as eccentricity for a parabola.

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 72 Question Id : 7572 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

. The "Isometric view" of a circle would appear as:

- a. a circle of reduced diameter
- b. Ellipse
- c. a circle of increased diameter
- d. a circle of equal diameter

Options :

- 1. ✘ a
- 2. ✔ b
- 3. ✘ c
- 4. ✘ d

Question Number : 73 Question Id : 7573 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Four equal and similar point electric charges are kept at four corners of a square.

If E and V represent the resultant electric field and electric potential respectively at the Centre of the square, which of the following is correct for this arrangement?

- a. $E \neq 0 ; V \neq 0$
- b. $E = 0 ; V = 0$
- c. $E = 0 ; V \neq 0$
- d. $E \neq 0 ; V = 0$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 74 Question Id : 7574 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Identify the only wrong statement from the following for Binding Energy of a nucleus.

- a. It is the energy released when free nucleons combine together to form the nucleus.
- b. It is the energy required to split up the nucleus into its constituent nucleons.
- c. It is equal to the difference of rest mass energies of all the nucleons and the rest mass energy of the nucleus.
- d. It is equal to sum of rest mass energies of all the nucleons.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 75 Question Id : 7575 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

You have four convex lens A, B, C and D of focal length f_1 , f_2 , f_3 and f_4 respectively such that $f_2 < f_1 < f_4 < f_3$. Which of the two lenses should be used to design an astronomical telescope having maximum magnifying power?

- a. A and B
- b. B and D
- c. C and B
- d. A and D

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 76 Question Id : 7576 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Out of an ammeter, a milli ammeter, a voltmeter and a milli voltmeter, which pair of the instruments have maximum and minimum resistance respectively?

- a. Voltmeter ; Milli ammeter
- b. Voltmeter ; Ammeter
- c. Milli voltmeter ; Ammeter
- d. Milli voltmeter; Milli ammeter

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 77 Question Id : 7577 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

When a ray of light enters for air into glass, its:

- a. Speed decrease, frequency remains the same and wavelength decreases.
- b. Speed decreases, frequency and wavelength remains the same
- c. Speed increases, frequency and wavelength remains the same
- d. Speed increases, frequency increases and wavelength remains the same.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 78 Question Id : 7578 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The material used for making permanent magnets should have:

- a. Low retentivity , Low permeability, High coercivity
- b. High retentivity , Low permeability, Low coercivity
- c. High permeability, Low retentivity , Low coercivity
- d. High retentivity, High permeability, High coercivity

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 79 Question Id : 7579 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Neon has three natural isotopes with mass number 20, 21 and 22. The relative abundance of the isotopes is 90.51%, 0.27% and 9.22% respectively. The average atomic mass of neon will be:

- a. 22.0 u
- b. 21.179 u
- c. 22.800u
- d. 20.187 u

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 80 Question Id : 7580 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Four successive members of 3d block (of periodic table) are Vanadium ($z = 23$), Chromium ($z = 24$), manganese ($z = 25$) and iron ($z = 26$). Which one of these is expected to have the highest third ionization enthalpy?

- a. Vanadium (V)
- b. Chromium (Cr)
- c. Manganese (Mn)
- d. Iron (Fe)

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 81 Question Id : 7581 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following equations is an example of both, displacement reaction and redox reaction?

- a. $2\text{FeSO}_4(\text{s}) \xrightarrow{\text{heat}} \text{Fe}_2\text{O}_3(\text{s}) + \text{SO}_2(\text{g}) + \text{SO}_3(\text{g})$
- b. $\text{Fe}(\text{s}) + \text{CuSO}_4(\text{aq}) \longrightarrow \text{FeSO}_4(\text{aq}) + \text{Cu}(\text{s})$
- c. $2\text{AgCl}(\text{s}) \xrightarrow{\text{Sunlight}} 2\text{Ag}(\text{s}) + \text{Cl}_2(\text{g})$
- d. $2\text{KClO}_3 \xrightarrow{\Delta} 2\text{KCl}(\text{s}) + 3\text{O}_2(\text{g})$

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 82 Question Id : 7582 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

. A 0.10 M NaOH solution is prepared for an analytical laboratory work. pH of the solution will be:

- a. 10.0
- b. 12.0
- c. 11.5
- d. 13.0

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 83 Question Id : 7583 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Activity of the metals is decided on the basis of their electrode potentials. Electrode potential of a few metals are provided below.

$$E^0_{\text{Na}^+/\text{Na}} = -2.71\text{V}$$

$$E^0_{\text{Mg}^{2+}/\text{Mg}} = -2.37\text{V}$$

$$E^0_{\text{Cu}^{2+}/\text{Cu}} = +0.34\text{V}$$

$$E^0_{\text{Fe}^{2+}/\text{Fe}} = -0.44\text{V}$$

$$E^0_{\text{Cr}^{3+}/\text{Cr}} = -0.74\text{V}$$

The correct order of reducing power of the metals will be:

- a. $\text{Cu} < \text{Fe} < \text{Cr} < \text{Mg} < \text{Na}$
- b. $\text{Na} < \text{Cu} < \text{Mg} < \text{Fe} < \text{Cr}$
- c. $\text{Na} < \text{Mg} < \text{Fe} < \text{Cr} < \text{Cu}$
- d. $\text{Fe} < \text{Mg} < \text{Na} < \text{Cr} < \text{Cu}$

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 84 Question Id : 7584 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The IUPAC name of the Compound $\text{CH}_3\text{CH}_2\underset{\text{CH}_2\text{CH}_3}{\text{CH}}=\text{C}-\text{CH}_3$ is

- 4- ethyl -2- pentene
- 3- methyl -3- hexene
- 2-ethyl -2- pentene
- 3-methyl -2- pentene

Options :

- ✗ a
- ✓ b
- ✗ c
- ✗ d

Question Number : 85 Question Id : 7585 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In humans, one muscle tissue is capable of contracting and relaxing all the time without fatigue. Which muscle fibres are those?

- Skeletal (Striated)
- Spindle shaped unstriated
- Cardiac
- Muscle bundles

Options :

- ✗ a
- ✗ b
- ✓ c
- ✗ d

Question Number : 86 Question Id : 7586 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The retina of the human eye is made up of:

- rod cells
- cone cells
- ganglion cells

Which ones are for colour vision?

- A
- B
- C
- Both a and b

Options :

- ✗ a
- ✓ b
- ✗ c
- ✗ d

Question Number : 87 Question Id : 7587 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is a hybrid? Offspring of:

- a. parents belonging to same species
- b. parents of different races of a species
- c. parents belonging to two different species
- d. asexually reproducing organism

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 88 Question Id : 7588 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A teacher wrote the following on the board.

Grass → Grasshopper → Frog → Snake

The teacher wanted to talk about:

- a. Food chain
- b. Food web
- c. Animal classification
- d. Invertebrates and vertebrates

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 89 Question Id : 7589 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

. In which part of the body is carbon-di-oxide released as soon as food gets oxidized?

- a. Lungs
- b. Cells of lining of the alveoli
- c. Cells of trachea
- d. All cells of the body

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 90 Question Id : 7590 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is not true about genes? They are:

- a. present on chromosomes
- b. segments of DNA
- c. carry information for protein synthesis
- d. incapable of undergoing any change

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 91 Question Id : 7591 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Let x be the greatest number which can divide 1356, 1868 and 2764 leaving the same remainder in each case. The sum of the digits of x is:

- a. 12
- b. 11
- c. 10
- d. 8

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 92 Question Id : 7592 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Let $A = 7^3 \times 11^4 \times 13^5$

$B = 7^4 \times 11^3 \times 13^7$

$C = 11^3 \times 7^3 \times 13^4$

$D = 13^6 \times 11^5 \times 7^3$

The LCM of A, B, C and D is:

- a. $(77)^4 \times 13^7$
- b. $(77)^3 \times 13^7$
- c. $7^4 \times (143)^5$
- d. $13^4 \times 11^5 \times 7^4$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c

4. ✓ d

Question Number : 93 Question Id : 7593 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The prices of two articles A and B are in the ratio 4 : 5. If the price of A is increased by 20% and that of B by Rs 8, their ratio still remains the same. The difference in the original prices of A and B (in Rs) is:

- a. 8
- b. 9
- c. 10
- d. 12

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 94 Question Id : 7594 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If $2a = 3b$, $4b = 5c$ and $6c = 5d$, then $a : d$ is:

- a. 16 : 25
- b. 25 : 16
- c. 15 : 8
- d. 8 : 15

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 95 Question Id : 7595 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The ratio of ages (in years) of A and B is 13 : 15. Five years ago, the ratio of their ages was 17 : 20. If C is 20 years younger than A, then the age of C, in years, is:

- a. 25
- b. 21
- c. 19
- d. 18

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 96 Question Id : 7596 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a solution of 55 litres of acid and water, the ratio of acid and water is 2 : 3.

If the ratio of acid and water is to be 1 : 2, then the amount (in litres) of water to be added to the solution is:

- a. 10
- b. 11
- c. 12
- d. 14

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 97 Question Id : 7597 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A container contains a mixture of two liquids A and B in the ratio 5:6. When

11 litres of mixture is drawn off and the same quantity is replaced by with liquid B, the ratio of A and B becomes 4 : 7. Initially, the quantity (in litres) of A in the container was:

- a. 15
- b. 20
- c. 25
- d. 30

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 98 Question Id : 7598 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A person borrowed a sum of money and returned it in three equal yearly installments of Rs 97336 each. If the rate of interest charged was 15% per annum compounded yearly, then the total interest (in Rs), he paid on the loan was:

- a. 69768
- b. 68775
- c. 68755
- d. 67768

Options :

- 1. ✓ a

- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 99 Question Id : 7599 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Abhi invested a certain sum of money at a certain rate of simple interest for 5 years. Had he invested it at 4% higher rate, he would have earned Rs.800 more. His investment was (in Rs):

- a. 8000
- b. 6000
- c. 5000
- d. 4000

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 100 Question Id : 7600 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A shopkeeper allows 25% discount on the marked price of a saree and still makes a profit of 20%. If he gains Rs 225 over the sale of the saree, the marked price (in Rs) of the saree.

- a. 2400
- b. 2000
- c. 1800
- d. 900

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 101 Question Id : 7601 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A man earns a profit of 50% when he sells an article at $\frac{5}{4}$ of the original selling price.

What is the percent profit to him, if he sells it at the original selling price?

- a. 40
- b. 30
- c. 25
- d. 20

Options :

1. ✘ a
2. ✘ b
3. ✘ c
4. ✔ d

Question Number : 102 Question Id : 7602 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Points A and B are 80 km apart on a highway. A car x starts from A and another car y starts from B simultaneously. If they travel in the same direction (A to B) they meet in 4 hours but they meet in one hour, if they travel towards each other. The speed of A, in km/hour, is:

- a. 60
- b. 55
- c. 50
- d. 30

Options :

1. ✘ a
2. ✘ b
3. ✔ c
4. ✘ d

Question Number : 103 Question Id : 7603 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

A person can travel a certain distance in 25 hours. If he reduces his speed by $\frac{1}{5}$, he travels 10 km less in that time. His original speed , in km/hour is:

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

Options :

1. ✔ a
2. ✘ b
3. ✘ c
4. ✘ d

Question Number : 104 Question Id : 7604 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

'A' takes 12 days to finish a piece of work, whereas 'B' takes 15 days to finish the same work. If 'C' works thrice as fast as 'A', then how many days will all three of them working together take to finish the same work?

- a. 4
- b. $3\frac{1}{2}$
- c. $2\frac{1}{2}$
- d. 2

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 105 Question Id : 7605 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A tap P which can fill a tank 3 times faster than tap Q, takes 32 minutes less time than tap Q to fill the tank. If both the taps are opened together, the time taken to fill the tank, in minutes, is:

- a. 12
- b. 15
- c. 16
- d. 18

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 106 Question Id : 7606 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The average score of the students in a class is 65. The average score of boys is 60 and that of girls is 68. The percentage of girls in the class is:

- a. 37.5
- b. 62.5
- c. 60
- d. 65

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c

4. ✖ d

Question Number : 107 Question Id : 7607 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Five years ago, the average age of a family of 6 members was 32 years. The present average age of the family 33 years after the inclusion of a child into family. The age (in years) of the child is:

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

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 108 Question Id : 7608 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the roots of the equation $12x^2 + kx + 6 = 0$ are in the ratio 2 : 3, then the positive value of k is:

- a. $5\sqrt{3}$
- b. $10\sqrt{2}$
- c. $10\sqrt{3}$
- d. $5\sqrt{2}$

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 109 Question Id : 7609 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The quadratic equation with rational co-efficients where one root is $2 + 3\sqrt{2}$, is:

- a. $x^2 - 4x - 14 = 0$
- b. $x^2 - 4x + 14 = 0$
- c. $x^2 + 4x - 14 = 0$
- d. $x^2 + 4x + 14 = 0$

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 110 Question Id : 7610 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

One of the factors of $(x + 1)(x + 2)(x + 3)(x + 4) - 48$ is:

- a. $x^2 - 5x + 12$
- b. $x^2 + 5x + 12$
- c. $x^2 - 5x - 2$
- d. $x^2 - 5x + 2$

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 111 Question Id : 7611 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Factorization of $(a + b)^3 + (b - c)^3 + (c - a)^3$ is:

- a. $(a - b)(b - c)(c - a)$
- b. $2(a - b)(b - c)(c - a)$
- c. $3(a - b)(b - c)(c - a)$
- d. $4(a - b)(b - c)(c - a)$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 112 Question Id : 7612 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

If $a_1, a_2, a_3, \dots$ is an arithmetic progression such that $\frac{a_4}{a_7} = \frac{2}{3}$, then $\frac{a_6}{a_8}$ is equal to:

- a. $\frac{4}{3}$
- b. $\frac{3}{4}$
- c. $\frac{4}{5}$
- d. $\frac{5}{4}$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 113 Question Id : 7613 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the first term of an infinite geometric series is 729 and the 7th term is 64, then the sum of this series is:

- a. 1093.5
- b. 874.5
- c. 2187
- d. 1458

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 114 Question Id : 7614 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The value of $\sec^6\theta - \tan^6\theta - 3\sec^2\theta \tan^2\theta$ is:

- a. 0
- b. -1
- c. $\frac{1}{2}$
- d. 1

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 115 Question Id : 7615 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If elevation of the sun changes from 30° to 60° , then the difference (in m) between the lengths of shadows of a tower, 30 m high, at these two elevations of the sun is:

- a. $30\sqrt{3}$
- b. $20\sqrt{3}$
- c. $15\sqrt{3}$
- d. $10\sqrt{3}$

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 116 Question Id : 7616 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

. Which of these are not significant developments of the Bronze age?

- a. Irrigated Farming
- b. Large empires
- c. Town development
- d. Cuneiform

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 117 Question Id : 7617 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What were the major changes in feudal period agriculture which led to the rise of surplus production?

- a. Food shortages in different areas allowing trade from surplus.
- b. Renting out of land to smaller peasants.
- c. New inventions like the iron plough and horse drawn ploughs.
- d. Cultivation of more than one crop at a given time in different fields.

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 118 Question Id : 7618 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What were the causes of frequent occurrence of famines in India in the 19th century?

- a. Migration of farmers to cities
- b. Decrease in cultivated area
- c. Cultivation of commercial crops
- d. Increase in temperature, decrease in rainfall

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 119 Question Id : 7619 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the effect of the elliptical path of the Earth around the Sun?

- a. The rotation of the earth changes speed in January.
- b. The earth moves slower in January than in July.
- c. The earth has a longer summer than Spring season.
- d. The earth moves faster in January and slower in July.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 120 Question Id : 7620 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What has been the trend of growth of rural population and urban population in the 2011 Census?

- a. Rural population has increased but urban population decreased
- b. Rural population has increased but urban population increased further.
- c. There is increased migration from urban to rural areas
- d. Urban areas have increased and included rural population.

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 121 Question Id : 7621 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the main area in which Bihar is likely to grow most in the coming decade?

- a. Food processing and food products
- b. Iron and steel Production
- c. Cotton textile and readymade clothes
- d. Horticulture and fruit farming

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 122 Question Id : 7622 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which State institution can truly be considered to be the one in which people's voice matters?

- a. Gram Panchayat
- b. Zilla Parishad
- c. Nyaya Panchayat
- d. Gram Sabha

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 123 Question Id : 7623 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For which type of question in Parliament is a written reply required?

- a. Unstarred question
- b. Starred question
- c. Short notice questions
- d. Questions for private members

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 124 Question Id : 7624 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the main problem faced for power generation in India?

- a. Poor quality of electricity generation power stations and dependence on coal
- b. Higher demand from industrial areas and no facilities in rural areas
- c. Low transmission capacity compared to production and land acquisition
- d. Inaccessible areas where there is difficulty in putting up transmission towers

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 125 Question Id : 7625 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

. Which sector of the Indian economy has 95% of the workforce and contributes 57% of the national domestic product?

- a. Industrial workers
- b. Unorganised sector
- c. Service sector
- d. Transport workers

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 126 Question Id : 7626 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which sector consumes the least amount of coal today?

- a. Medium scale industries
- b. Railways
- c. Large industries
- d. Electricity production

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 127 Question Id : 7627 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Why do stars appear to be twinkling in the sky?

- a. Scattering of Light
- b. Emission of Light
- c. Absorption of Light
- d. Reflection of Light

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 128 Question Id : 7628 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What level of noise is considered permissible in and near residential colonies?

- a. Up to 30 decibels
- b. Up to 50 decibels
- c. Up to 20 decibels
- d. Up to 40 decibels

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 129 Question Id : 7629 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Why is Television transmission from towers restricted to a limited area?

- a. The atmosphere absorbs the signals
- b. There is interference from other signals
- c. The curvature of the Earth stops signals
- d. The signals become weak with distance

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 130 Question Id : 7630 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the metal mainly used for galvanizing iron buckets for our daily use?

- a. Mercury
- b. Cadmium
- c. Tin
- d. Zinc

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 131 Question Id : 7631 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the common name for sodium bicarbonate?

- a. Baking soda
- b. Salt
- c. Bleaching powder
- d. Soda ash

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 132 Question Id : 7632 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which acid is the major component of vinegar?

- a. Hydrochloric acid
- b. Nitric Acid
- c. Acetic Acid
- d. Sulphuric acid

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 133 Question Id : 7633 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Why do cows and sheep chew the cud?

- a. Break down the cellulose into carbohydrate
- b. Increase the roughage for digestion
- c. Convert cellulose into organic acids
- d. Make the food soft so that it can be digested

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 134 Question Id : 7634 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which type of light is best for photosynthesis in a plant?

- a. White Light
- b. Red Light
- c. Yellow Light
- d. Green Light

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 135 Question Id : 7635 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Where would you find xerophytes?

- a. Tropical regions
- b. Deserts
- c. Coastal areas
- d. Temperate region

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 136 Question Id : 7636 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Who won the French Open 2015?

- a. Federer
- b. Nadal
- c. Wawarinka
- d. Djovic

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 137 Question Id : 7637 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Who became the first Indian woman by setting world record by swimming 1.4 miles in 52 minutes in the Antarctic Ocean in Jan 2015?

- a. Bhakti Sharma
- b. Bhanu Sharma
- c. Shikha Tandon
- d. Bula Chowdhary

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 138 Question Id : 7638 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is Pentaquark?

- a. Name of the plains in Pluto
- b. New name for a man made chemical
- c. Sperm variety from dinosaurs
- d. New kind of particle of matter

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 139 Question Id : 7639 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the HRIDAY project focussed on?

- a. Redeveloping forest areas that are heritage zones
- b. Provision of health care facilities in rural areas
- c. Development of special economic zones for electronics
- d. Development of heritage sites and the eco system

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✘ c
- 4. ✔ d

Question Number : 140 Question Id : 7640 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which Indian text has been translated into Chinese recently?

- a. Shilapadikaram
- b. Tripitika
- c. Jain texts
- d. Bhagvad Gita

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✘ c
- 4. ✔ d

Question Number : 141 Question Id : 7641 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 winner's _____.

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

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 142 Question Id : 7642 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

GERMANY : FFSLBMZ :: PACIFIC : ?

The letters of the word GERMANY are related to those of FFSLBMZ 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. OBDJEJB
- b. OBBJEJB
- c. QBSHGJD
- d. QZDHGHD

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 143 Question Id : 7643 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

What will be the 10th term in the series?

729/32, -243/16, 81/8, -27/4, 9/2, -3, ...

- a. -27/16
- b. 2/9
- c. -16/27
- d. 8/81

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 144 Question Id : 7644 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which is the next term in the following sequence of letter clusters?

MeR, OfQ, QgP, ShO, UiN

- a. WkM
- b. WjM
- c. WjL
- d. XjM

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c

4. ✖ d

Question Number : 145 Question Id : 7645 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the odd number-pair?

- a. 343 – 2401
- b. 64 - 256
- c. 216 – 1296
- d. 125 – 525

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 146 Question Id : 7646 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a code, LIBRARIANS is coded as ILRBRAAISN. In that code, what will be the code for PHOSPATIC?

- a. HPSOHPTACI
- b. EMEKXSOBEK
- c. BMBKXSObBK
- d. BMBKXSOBEK

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 147 Question Id : 7647 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The code for RADIO in a language is 5190401081. Which word would be coded as PENCIL?

- a. 219030415061
- b. 160514030912
- c. 161205140309
- d. 213090415061

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 148 Question Id : 7648 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A newspaper is made of sheets of paper folded in half. I pick up a sheet and see that the pages on it are numbered 5, 6, 27 and 28. I pick up the sheet containing page 21. What would be the numbers of the other pages on the sheet?

- a. 11, 12 and 22
- b. 10, 11 and 22
- c. 10, 11 and 20
- d. 11,12 and 20

Options :

- 1. ✘ a
- 2. ✔ b
- 3. ✘ c
- 4. ✘ d

Question Number : 149 Question Id : 7649 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Getting out of his house which faces South, a doctor walked 50 metres before turning left and walking 30 metres. Thereafter, he turned right and walked 40 metres more. Turning again 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

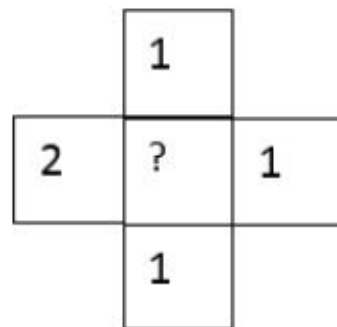
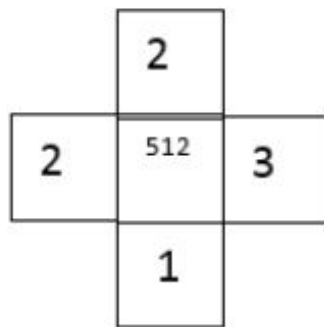
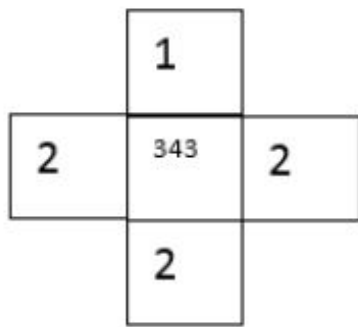
Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✘ c
- 4. ✔ d

Question Number : 150 Question Id : 7650 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Choose the number missing in the third cross.



- a. 144
- b. 25
- c. 125
- d. 216

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

aglaSem