

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 3 Actual
Subject Name:	Senior Section Engineer
Creation Date:	2015-08-31 13:32:59.0
Cut Off:	0
Duration:	120
Number of Questions:	150
Total Marks:	150.0

Senior Section Engineer	
Group Number :	1
Group Id :	39
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 :	39
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:	39
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 7051 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

An isolated system

- a. is a specified region where transfer of energy and/or mass take place
- b. is a region of constant mass and only energy is allowed to cross the boundaries
- c. cannot transfer either energy or mass to or from the surroundings
- d. is one in which mass within the system is not necessarily constant

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 2 Question Id : 7052 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If a heat source at temperature T_1 transfers heat to a system at temperature T_2 ($T_1 > T_2$), then which of the following statements is not true?

- a. Δ_{system} decreases
- b. Δ_{source} decreases
- c. $(\Delta_{\text{system}} + \Delta_{\text{source}})$ decreases
- d. $(\Delta_{\text{system}} + \Delta_{\text{source}})$ increases

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 3 Question Id : 7053 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Enthalpy of formation is defined as enthalpy of compounds at

- a. 25°C and 10 atmospheres
- b. 25°C and 1 atmosphere
- c. 0°C and 1 atmosphere
- d. 100°C and 1 atmosphere.

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 4 Question Id : 7054 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Heat transfer takes place according to

- a. Zeroth Law of Thermodynamics
- b. First Law of Thermodynamics
- c. Second Law of Thermodynamics
- d. Third Law of Thermodynamics.

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c
- 4. ✘ d

Question Number : 5 Question Id : 7055 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For the fully developed laminar flow and heat transfer in a uniformly heated long circular tube, if the flow velocity is doubled and the tube diameter is halved, the heat transfer coefficient will be

- a. double of the original value
- b. half of the original value
- c. same as before
- d. four times of the original value

Options :

- 1. ✔ a
- 2. ✘ b
- 3. ✘ c
- 4. ✘ d

Question Number : 6 Question Id : 7056 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Air can be best heated by steam in a heat exchanger of

- a. Plate type
- b. Double pipe type with fins on steam side
- c. Double pipe type with fins on air side
- d. Shell and tube type

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✔ c

4. ✖ d

Question Number : 7 Question Id : 7057 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not a method of heat transfer?

- a. Conduction
- b. Convection
- c. Condensation
- d. Radiation

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 8 Question Id : 7058 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Diesel used in automobile engines is mainly composed of Carbon and

- a. Nitrogen
- b. Oxygen
- c. Hydrogen
- d. Water molecules

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 9 Question Id : 7059 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The best firing order for a six cylinder in-line engine is

- a. 1 2 3 4 5 6
- b. 2 3 4 5 6 1
- c. 1 4 2 6 3 5
- d. 1 5 3 6 2 4

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 10 Question Id : 7060 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following item is made of aluminium alloy?

- a. piston ring
- b. connecting rod
- c. piston
- d. crankshaft

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 11 Question Id : 7061 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Among the following materials, the shrinkage allowance is more for

- a. cast iron
- b. brass
- c. lead
- d. aluminum alloy

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 12 Question Id : 7062 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Hobbing is a process of

- a. producing cavities into softer metal by forcing a hardened steel hob
- b. printing letters on metal sheet
- c. producing flutes or corrugations
- d. producing coins

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 13 Question Id : 7063 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The process used to improve fatigue resistance of a metal by setting up compressive stresses in its surface is known as

- a. hot piercing
- b. extrusion
- c. cold peening
- d. cold heading

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 14 Question Id : 7064 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Flame cutting of stainless steel plates is performed by.....

- a. using more fuel gas
- b. increasing the length of flame
- c. addition of iron powder
- d. addition of stainless steel powder

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 15 Question Id : 7065 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The element of electric heater is made of

- a. copper
- b. steel
- c. carbon
- d. nichrome

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 16 Question Id : 7066 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

5×10^{16} electrons pass across the section of a conductor in 1 minute 20 sec. The current flowing is:

- a. 1 mA
- b. 0.1 mA
- c. 0.01 mA
- d. 10 mA

Options :

1. ✖ a

2. ✔ b

3. ✖ c

4. ✖ d

Question Number : 17 Question Id : 7067 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Three elements having conductance G_1 , G_2 and G_3 are connected in parallel. Their combined conductance will be

- a. $1/(1/G_1 + 1/G_2 + 1/G_3)$
- b. $(G_1G_2 + G_2G_3 + G_3G_1)/(G_1 + G_2 + G_3)$
- c. $1/(G_1 + G_2 + G_3)$
- d. $G_1 + G_2 + G_3$

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 18 Question Id : 7068 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the unit of measure for electrical pressure or electromotive force?

- a. amps
- b. ohms
- c. volts
- d. watts

Options :

1. ✖ a

2. ✖ b

3. ✓ c

4. ✗ d

Question Number : 19 Question Id : 7069 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following circuit configurations has the same amount of voltage drop across each of its components?

- a. parallel
- b. series-parallel
- c. series
- d. combination

Options :

1. ✓ a

2. ✗ b

3. ✗ c

4. ✗ d

Question Number : 20 Question Id : 7070 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If a resistor suddenly decreases in value (resistance decreases), what will happen to the current through the resistor?

- a. increases
- b. remains unchanged
- c. decreases
- d. fluctuates

Options :

1. ✓ a

2. ✗ b

3. ✗ c

4. ✗ d

Question Number : 21 Question Id : 7071 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the applied voltage on a circuit in which .5A is flowing and 10 W is generated?

- a. 2 V
- b. 5 V
- c. 20 V
- d. 50 V

Options :

1. ✗ a

2. ✗ b

3. ✓ c

4. ✗ d

Question Number : 22 Question Id : 7072 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the term used to describe the ability of a device to store energy in the form of an electrical charge?

- a. inductance
- b. conductance
- c. reactance
- d. capacitance

Options :

1. ✗ a

2. ✗ b

3. ✗ c

4. ✓ d

Question Number : 23 Question Id : 7073 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A $33\ \Omega$ half-watt resistor and a $330\ \Omega$ half-watt resistor are connected across a 12 V source. Which one(s) will overheat?

- a. $33\ \Omega$
- b. $330\ \Omega$
- c. both resistors
- d. neither resistor

Options :

1. ✗ a

2. ✗ b

3. ✗ c

4. ✓ d

Question Number : 24 Question Id : 7074 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In 0.025 W, there are

- a. 25 kW
- b. 0.00025 mW
- c. 2,500 μ W
- d. 25 mW

Options :

1. ✗ a

2. ✗ b

3. ✗ c

4. ✓ d

Question Number : 25 Question Id : 7075 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is represented by the symbol XL?

- a. impedance of a load
- b. reactance of a coil
- c. resonant frequency of a filter
- d. output level of a source

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 26 Question Id : 7076 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

One coulomb-per-second is equal to one:

- a. watt
- b. joule
- c. volt
- d. ampere

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 27 Question Id : 7077 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The frequency of a signal is INVERSELY proportional to which of the following:

- a. period
- b. amplitude
- c. phase
- d. power

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 28 Question Id : 7078 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

As the efficiency of a device DECREASES, which of the following will

Options :

- 1. ✗ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 29 Question Id : 7079 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the peak voltage of a sine wave that measures 220 VAC rms?

- a. 155 V
- b. 169 V
- c. 311 V
- d. 440 V

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 30 Question Id : 7080 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is one of the functions performed by a diode?

- a. filter
- b. amplifier
- c. rectifier
- d. inverter

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 31 Question Id : 7081 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the relationship between current (I) and voltage (V) in a circuit consisting of a capacitor in series with a resistor?

- a. I and V are in phase across the capacitor.
- b. I leads V across the resistor.
- c. V leads I across the capacitor.
- d. I and V are in phase across the resistor.

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 32 Question Id : 7082 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the “power factor”?

- a. ratio of true power to apparent power
- b. peak power times .707
- c. sin of the phase difference between V and I
- d. cos of the phase angle between true power and apparent power

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 33 Question Id : 7083 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which component has a positive and a negative side?

- a. A potentiometer
- b. A fuse
- c. A resistor
- d. A battery

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 34 Question Id : 7084 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is a source of EMF?

- a. germanium diode
- b. lead acid battery
- c. P channel FET
- d. carbon resistor

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 35 Question Id : 7085 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A non-yielding support has

- a. Zero slope at the end point (support point)
- b. No bending moment
- c. Can support any amount of vertical load
- d. Frictionless

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 36 Question Id : 7086 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The minimum gross pressure intensity at the base of the foundation at which the soil fails in shear is called as

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

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 37 Question Id : 7087 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If a material shows similar 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 : 7088 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An element used to retain or prevent the out-of-plane deformations of plates is referred as

- a. Strut
- b. Stiffener
- c. Purlin
- d. Raft

Options :

- 1. ✘ a
- 2. ✔ b
- 3. ✘ c
- 4. ✘ d

Question Number : 39 Question Id : 7089 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The recommended slump of concrete for hand-placed pavements is

- a. 2-4 inches
- b. 3-4 inches
- c. 4-6 inches
- d. 1-3 inches

Options :

- 1. ✘ a
- 2. ✘ b
- 3. ✘ c
- 4. ✔ d

Question Number : 40 Question Id : 7090 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not a permanent adjustment in theodolite

- a. Adjustment of the horizontal plate level
- b. Adjustment of the telescope
- c. Adjustment of the vertical circle index
- d. Elimination of parallax

Options :

- 1. ✘ a
- 2. ✘ b

3. ✖ c

4. ✔ d

Question Number : 41 Question Id : 7091 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The reference points on which a day's work is closed and from where levelling is continued the next day are called as

- a. Temporary benchmarks
- b. Arbitrary benchmarks
- c. Permanent benchmarks
- d. GTS benchmarks

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 42 Question Id : 7092 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

According to IS 1200, floor finishes shall be measured in

- a. running meter
- b. cubic meter
- c. square meter
- d. Thickness

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 43 Question Id : 7093 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 : 7094 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A term referring to the shortest possible time for which an activity can be schedule

- a. Crash duration
- b. Expansion
- c. Slack
- d. Flexibility

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 45 Question Id : 7095 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Nuclear density guage can be used for all the following purposes, except

- a. Moisture content
- b. Wet density
- c. Dry density
- d. Standard penetration reading

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 46 Question Id : 7096 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the sensitivity of a soil is between 4 and 8, then it will be called as

- a. Insensitive soil
- b. Less sensitive soil
- c. Sensitive soil
- d. Extra sensitive soil

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 47 Question Id : 7097 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The use of _____ instruments is merely confined within laboratories as standardizing instruments.

- a. Absolute
- b. Indicating
- c. Recording
- d. Integrating

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 48 Question Id : 7098 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following instruments indicate the instantaneous value of the electrical quantity being measured at the time at which it is being measure?

- a. Absolute instruments
- b. Indicating instruments
- c. Recording instruments
- d. Integrating instruments

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 49 Question Id : 7099 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Resistances can be measured with the help of

- a. Wattmeters
- b. Voltmeters
- c. Ammeters
- d. ohmmeters and resistance bridges

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 50 Question Id : 7100 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following essential features is possessed by an indicating instrument?

- a. Deflecting device
- b. Controlling device
- c. Damping device
- d. Deflecting,Controlling & Damping device

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 51 Question Id : 7101 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Induction type single phase energy meters measure electric energy in

- a. kW
- b. Wh
- c. kWh
- d. VAR

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 52 Question Id : 7102 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The energy transferred from one trophic level to the other is only about

- a. 20%
- b. 10%
- c. 25%
- d. 5%

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 53 Question Id : 7103 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A water borne disease poliomyelitis is caused by

- a. viruses
- b. protozoa
- c. bacteria
- d. helminthes

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 54 Question Id : 7104 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In potable water, the permissible limit of nitrate nitrogen is

- a. 10 mg/l
- b. 25 mg/l
- c. 40 mg/l
- d. 15 mg/l

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 55 Question Id : 7105 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Carbon monoxide forms carboxyhemoglobin in human blood that may cause

- a. increased oxygen carrying capacity
- b. decreased oxygen carrying capacity
- c. damage in central nervous system
- d. damage in circulatory system

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 56 Question Id : 7106 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Two machines are working in a noisy environment and jointly producing 55 dBA noise level.

If the environmental noise level is also 55 dBA, the summation of noise levels is

- a. 110 dBA
- b. 56 dBA
- c. 55 dBA
- d. 58 dBA

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 57 Question Id : 7107 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The average concentration of ozone present in the stratosphere is approximately

- a. 5 ppm
- b. 0.05 ppm
- c. 10 ppm
- d. 15 ppm

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 58 Question Id : 7108 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following CPU registers stores the address of the next instruction to be executed?

- a. Program Counter register
- b. Accumulator register
- c. Instruction register
- d. Memory Address register

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 59 Question Id : 7109 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An instruction consisting of an operation code and operand address(es) is called

- a. Mnemonics
- b. Pseudo code
- c. Assembly language instruction
- d. Machine language instruction

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 60 Question Id : 7110 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

BIOS, which is a part of operating systems of PCs, stands for

- a. Binary Input Output System
- b. Basic Input Output System
- c. Basic Input Output Synchronization
- d. Binary Input Output Synchronization

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 61 Question Id : 7111 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For a memory of size 64K words with each word storing 8 bits, the size of Memory Address Register (MAR) is

- a. 8 bits
- b. 16 bits
- c. 32 bits
- d. 64 bits

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 62 Question Id : 7112 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of the following statements is not true about an MS-Word document?

- a. Different portions of texts may have different fonts
- b. Different portions of texts may have different font size
- c. Copy-paste texts can't be deleted
- d. A table can have only one row and column

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 63 Question Id : 7113 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Procedural language is also known as

- a. Functional language
- b. Imperative language
- c. Rule-based language
- d. Logic programming language

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 64 Question Id : 7114 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

ASCII is a _____ bit code.

- a. 8
- b. 12
- c. 16
- d. 32

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 65 Question Id : 7115 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In Boolean Algebra, $A + AA'$ is equivalent to

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

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 66 Question Id : 7116 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The IP addresses are _____ bytes long.

- a. 2
- b. 4
- c. 8
- d. 16

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c

4. ✖ d

Question Number : 67 Question Id : 7117 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The main reason behind the popularity of the World Wide Web is the use of the concept called

- a. PageRank
- b. Hypertext
- c. Information indexing
- d. Information retrieval

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 68 Question Id : 7118 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The orthographic projections of one of the “end points” of a line are described as lying 20 mm below HP and 25 mm in front of VP. This point lies in:

- a. First Quadrant
- b. Second Quadrant
- c. Third Quadrant
- d. fourth Quadrant.

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 69 Question Id : 7119 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The object shown in the following figure is a:



- a. Bolt
- b. Square Bolt
- c. Stud
- d. Post.

Options :

- 1. ✖ a
- 2. ✖ b

3. ☒ c4. ☐ d

Question Number : 70 Question Id : 7120 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A scale is to be devised to read into Metre, Decimetre and Centimetre. Which type of the following scales is suited best for this purpose?

- a. Plain Scale
- b. Vernier Scale
- c. Diagonal Scale
- d. Diagonal scale or Vernier Scale.

Options :

1. ☐ a2. ☐ b3. ☐ c4. ☒ d

Question Number : 71 Question Id : 7121 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not a “conic section”:

- a. Circle
- b. Square
- c. Parabola
- d. Ellipse.

Options :

1. ☐ a2. ☒ b3. ☐ c4. ☐ d

Question Number : 72 Question Id : 7122 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In an “isometric scale” the angle between a “line” and its “iso-equivalent line” is:

- a. 30°
- b. 45°
- c. 15°
- d. 60° .

Options :

1. ☐ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 73 Question Id : 7123 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A lift weighing $1.96 \times 10^4 \text{ N}$ is supported by a steel cable. When the lift is moving upward with an acceleration of 2.2 m/s^2 , the tension in the cable is ($g = 9.8 \text{ m/s}^2$)

a. $2.40 \times 10^4 \text{ N}$ b. $1.52 \times 10^4 \text{ N}$ c. $2.35 \times 10^5 \text{ N}$ d. $1.49 \times 10^5 \text{ N}$.

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 74 Question Id : 7124 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The escape speed from the surface of the Earth is 11.2 km/s . The mass of the moon is $1/81$ that of the Earth and its radius is $1/4$ that of the Earth. The escape speed for an object on the surface of the moon is

a. 50.4 km/s b. 25.2 km/s c. 2.5 km/s d. 5.0 km/s .

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 75 Question Id : 7125 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A 1 kg ball has zero kinetic and potential energy. Shashi drops the ball into a 15 m deep well. The sum of its kinetic and potential energy, just before it hits the bottom is ($g = 9.8 \text{ m/s}^2$)

- a. 0
- b. 294 J
- c. -147 J
- d. 147 J.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 76 Question Id : 7126 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The motion of an object is described by the equation $x = 0.70 \cos (\pi t/4)$ m, where t is in seconds. The frequency of the motion is

- a. (1/4) Hz
- b. (1/8) Hz
- c. 4 Hz
- d. 8 Hz.

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 77 Question Id : 7127 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The wavelength of a monochromatic source is 460 nm in vacuum. Waves from the same source pass through a medium where the velocity of light is $2.1 \times 10^8 \text{ m/s}$. The wavelength of the source in the medium is ($c = 3 \times 10^8 \text{ m/s}$)

- a. 657 nm
- b. 460 nm
- c. 161 nm
- d. 322 nm.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 78 Question Id : 7128 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Two resistors of $2\ \Omega$ and $3\ \Omega$ are connected in series between two points A and B. A third resistor of $5\ \Omega$ is also connected between the same points.. When points A and B are connected to terminals of a battery, power dissipated in the $5\ \Omega$ resistor is 10 W. The power dissipated in $2\ \Omega$ resistor is

- a. 1 W
- b. 2 W
- c. 3 W
- d. 4 W.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 79 Question Id : 7129 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If Avogadro constant is $6.02 \times 10^{23}\ \text{mol}^{-1}$, then mass of one C_2H_4 molecule (in gram) will be

- a. $5.02 \times 10^{-23}\ \text{g/molecule}$
- b. $4.65 \times 10^{-23}\ \text{g/molecule}$
- c. $2.38 \times 10^{-23}\ \text{g/molecule}$
- d. $6.02 \times 10^{-23}\ \text{g/molecule}$

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 80 Question Id : 7130 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Properties of certain elements resembles with the elements placed diagonally in the periodic table. Lithium will show diagonal relationship with

- a. Boron
- b. Beryllium
- c. Magnesium
- d. Aluminum

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c

4. ✖ d

Question Number : 81 Question Id : 7131 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following reactions is not a disproportionation reaction?

- a. $2\text{H}_2\text{O}_2(\text{aq}) \longrightarrow 2\text{H}_2\text{O}(\text{l}) + \text{O}_2(\text{g})$
- b. $\text{P}_4(\text{s}) + 3\text{OH}^-(\text{aq}) \longrightarrow \text{PH}_3(\text{g}) + 3\text{H}_2\text{PO}_2^-$
- c. $\text{S}_8(\text{s}) + 12\text{OH}^-(\text{aq}) \longrightarrow 4\text{S}^{2-}(\text{aq}) + 2\text{S}_2\text{O}_3^{2-}(\text{aq}) + 6\text{H}_2\text{O}(\text{l})$
- d. $2\text{F}_2(\text{g}) + 2\text{OH}^-(\text{aq}) \longrightarrow 2\text{F}^-(\text{aq}) + \text{OF}_2(\text{g}) + \text{H}_2\text{O}(\text{l})$

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 82 Question Id : 7132 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

You are given the species :

 OH^- , F^- , H^+ and BCl_3

Identify the pair of acids from the following options:

- a. OH^- and BCl_3
- b. F^- and OH^-
- c. H^+ and BCl_3
- d. F^- and BCl_3

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 83 Question Id : 7133 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following elements is extracted commercially by the electrolysis of an aqueous solution of one of its compounds?

- a. Sodium
- b. Aluminum
- c. Bromine
- d. Chlorine

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 84 Question Id : 7134 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Number of structural isomers for C_4H_8 would be

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

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 85 Question Id : 7135 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A pair of an invertebrate and a vertebrate are mentioned below. Which pair is the odd one out

- a. Earthworm and bat
- b. Scorpion and spider
- c. Snake and Beetle
- d. Prawn and fish

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 86 Question Id : 7136 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which statement is true for plant respiration?

- a. Plants take in CO_2 and give out O_2 during respiration
- b. There are no special organs of respiration in plants
- c. Stomata and lenticels are organs of exchange of gases in plants
- d. Plants have chloroplasts instead of mitochondria so there is no cellular respiration in plants

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 87 Question Id : 7137 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following is not a herbivore?

- a. Deer
- b. Goat
- c. Owl
- d. Parakeet

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 88 Question Id : 7138 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Genes are made of

- a. RNA
- b. Protein
- c. Carbohydrate
- d. DNA

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 89 Question Id : 7139 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The sex of a foetus depends on the

- a. Autosomes
- b. X and Y Chromosomes
- c. Genome
- d. Genes

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 90 Question Id : 7140 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The correct evolutionary sequence of vertebrates is

- a. Fish, reptile, amphibia, aves mammals
- b. Amphibia, fish, reptile, mammals, aves
- c. Fish, amphibia, reptile, aves, mammals
- d. Mammals, reptile, amphibian, fish, aves

Options :

1. ☒ a
2. ☐ b
3. ☐ c
4. ☐ d

Question Number : 91 Question Id : 7141 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Let N be the greatest positive integer th

Options :

1. ☐ a
2. ☐ b
3. ☐ c
4. ☒ d

Question Number : 92 Question Id : 7142 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Let $a = 5^8 \times 7^6 \times (19)^2$, $b = (19)^3 \times 7^6 \times 5^9$
 $C = 5^8 \times (19)^3 \times 7^5$ and $d = 7^8 \times (19)^5 \times 5^{10}$

LCM of a,b,c and d is

- a. $5^8 \times 7^5 \times (19)^2$
- b. $5^{10} \times 7^8 \times (19)^5$
- c. $5^9 \times 7^5 \times (19)^3$
- d. $5^{10} \times 7^6 \times (19)^5$

Options :

1. ☐ a
2. ☒ b
3. ☐ c
4. ☐ d

Question Number : 93 Question Id : 7143 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the price of an article is increased by 10 % and the sale is decreased by 5% then what will be the effect on revenue?

- a. 4.5 % increase
- b. 4.5 % decrease
- c. 5% increase
- d. 5% decrease

Options :

1. ☒ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 94 Question Id : 7144 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If $2a = 3b$, $4b = 5c$, $6c = 7d$, then $a:d$ is

a. 35:16

b. 15:8

c. 16:35

d. 8:15

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 95 Question Id : 7145 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

. The ratio of incomes in two consecutive years of a family is in the ratio of 2:3, whereas the ratio of the expenditure is 5:9. If the income for second year is Rs.4.5 lakh and expenditure of first year is Rs.2.4 lakh then the ratio of the savings for two-years is

a. 15:2

b. 15:7

c. 10:3

d. 20:7

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 96 Question Id : 7146 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A vessel contains a solution of two liquids A and B in the ratio of 7:5. If 9 liters of this solution is taken out and replaced by the same quantity of liquid B, then the ratio of A and B in the resulting solution is 7:9. How much (in liters) of the liquid A was there in the beginning in the vessel?

a. 42

b. 35

c. 28

d. 21

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 97 Question Id : 7147 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

2.2 kg of an alloy of copper and zinc contains 80% copper by weight. The quantity (in kg) of copper, that must be mixed up with this alloy so that the new alloy contain 95% copper, is

- a. 6.6
- b. 6.4
- c. 5.6
- d. 5.4

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 98 Question Id : 7148 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A loan of Rs.26480 is to be paid back in three equal yearly installments. If the interest is compounded yearly at 10% per annum, then each installment is of Rs.

- a. 11548
- b. 10864
- c. 10648
- d. 8827

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 99 Question Id : 7149 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A sum of Rs.78060 is divided between A and B, so that the amount of A after $3\frac{1}{2}$ years is equal to the amount of B after $4\frac{1}{2}$ year, the interest is compounded half yearly at 8% per annum. The share of B in the given sum is (in Rs.)

- a. 40560
- b. 38560
- c. 37800
- d. 37500

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✔ d

Question Number : 100 Question Id : 7150 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A trader bought some goods at a discount of 20% of the list price. He want to mark them at such a price that after giving a discount of 20% of the marked price, he still makes a profit of 25% .The percent of the list price at which he should mark the goods is

- a. 150
- b. 140
- c. 125
- d. 100

Options :

1. ✖ a

2. ✖ b

3. ✔ c

4. ✖ d

Question Number : 101 Question Id : 7151 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

$66\frac{2}{3}$ part of goods is sold at 30 % profit , 25% part of goods at 16% profit and rest at 12% loss, If there is a profit of Rs.805, then the cost price (in Rs.) of the goods is

- a. 3500
- b. 3200
- c. 3000
- d. 2500

Options :

1. ✔ a

2. ✖ b

3. ✖ c

4. ✖ d

Question Number : 102 Question Id : 7152 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A journey of 384 km between two cities A and B takes 4 hour less by a fast train than by a slow train. if the average speed of the slow train is 16 km/hour less than that of the fast train , then the average speed (in km/hour) of fast train is

- a. 80
- b. 72
- c. 64
- d. 48

Options :

1. ✖ a

2. ✖ b

3. ✖ c

4. ✓ d

Question Number : 103 Question Id : 7153 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Sonu travels for $3\frac{1}{2}$ hours at 40 km/hour and then $2\frac{1}{2}$ hours at 48 km/hour. He finds that he has covered $\frac{4}{5}$ of his journey. If he wants to cover the remaining journey in $1\frac{11}{20}$ hours, his speed (in km/hour) for this part will be

- a. 44
- b. 40
- c. 38
- d. 36

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 104 Question Id : 7154 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

2 men and 5 women can finish a piece of work in 4 days whereas 3 men and 6 women can finish it in 3 days. The time (in days) taken by one man and 2 women to finish the same work is

- a. 9
- b. 3
- c. 6
- d. 8

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 105 Question Id : 7155 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

8 pipes are attached to a tank of which some are outlets and other are inlets. Each inlet can fill the tank in 10 hours and each outlet can empty it in 15 hours. If all the pipes are opened together, the tank is filled in $3\frac{1}{3}$ hours. The number of inlet pipes is

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

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c

4. ✓ d

Question Number : 106 Question Id : 7156 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Four positive integers, when added three at a time give the sums 180,197,208 and 219. Average of these four integers is

- a. 67
- b. 72
- c. 73
- d. 89

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 107 Question Id : 7157 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A car travels for m hours at the speed of w km/hour, then for k hours at the speed of h km/hour. The average speed (in km/h) for the distance covered is

- a. $\frac{2wk}{m+h}$
- b. $\frac{m+h}{2wk}$
- c. $\frac{mw+hk}{m+k}$
- d. $\frac{mw+hk}{2}$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 108 Question Id : 7158 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If α and β are the roots of $2x^2-3x-6=0$ then the equation whose root are α^2+2 and β^2+2 is

- a. $4x^2-49x+118=0$
- b. $4x^2+49x+118=0$
- c. $4x^2-49x+108=0$
- d. $4x^2-49x-108=0$

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 109 Question Id : 7159 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If a and b are the roots of $x^2+px+12=0$ such that $a-b=1$, then the sum of the possible values of p is

- a. 0
- b. 1
- c. 7
- d. 14

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 110 Question Id : 7160 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The value of the expression

$$\frac{a^2}{(a-b)(a-c)} + \frac{b^2}{(b-c)(b-a)} + \frac{c^2}{(c-a)(c-b)}$$
 is

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

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 111 Question Id : 7161 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

One of the factors of

$$X^3+1-y^3+3xy$$
 is

- a. $(x^2+y^2+xy+x-y+1)$
- b. $x+y+1$
- c. $(x^2+y^2+xy-x+y+1)$
- d. $x-y-1$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 112 Question Id : 7162 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If the m th term of an arithmetic progression is $\frac{1}{n}$ and its n th term is $\frac{1}{m}$, then the sum of mn terms is

- a. $\frac{1}{nm}$
- b. $\frac{mn}{2}$
- c. $\frac{mn+1}{2}$
- d. $\frac{mn-1}{2}$

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 113 Question Id : 7163 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The sum of the series

$$(1 + \frac{1}{2^2}) + (\frac{1}{2} + \frac{1}{2^4}) + (\frac{1}{2^2} + \frac{1}{2^6}) + \dots \text{to } \infty \text{ is}$$

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

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 114 Question Id : 7164 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If $2\sin^2\theta - 5\sin\theta\cos\theta + 7\cos^2\theta = 1$, then possible values of $\tan\theta$ are

- a. 2,3
- b. 1,3
- c. $2, \frac{5}{2}$
- d. 3,4

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c

4. ✖ d

Question Number : 115 Question Id : 7165 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

From the top of a tower 90 m high, the angles of depression of the top and bottom of a building are observed to be 30° and 60° respectively. The height of the building, in m, is

- a. 40
- b. $45\sqrt{3}$
- c. 60
- d. $40\sqrt{3}$

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 116 Question Id : 7166 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In which art form are the bison, giraffe, elephants and monkeys most commonly animals painted ?

- a. Cave Murals
- b. Rock Art
- c. Minatures of Kangra
- d. Folk art of Chattisgarh.

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 117 Question Id : 7167 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which aspect under the Gupta had the most the organised and innovative structure ?

- a. Administration
- b. Army
- c. Industry
- d. Trade

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 118 Question Id : 7168 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In which National Movement when all the top leaders of the Congress were arrested guided by radio broadcasts too?

- a. Home rule Agitation
- b. Non- Cooperation
- c. Khilafat Movement
- d. Quit India Movement

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 119 Question Id : 7169 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Along the course of the river where will a plunge pool form?

- a. Areas where there are more hard rocks
- b. Along the course of the river where boulders fall
- c. Where hydraulic action is more
- d. In a flood prone area of the river.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 120 Question Id : 7170 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Off the coast of India where would there be high intensity , but infrequent cyclones?

- a. Indian Ocean
- b. Bay of Bengal
- c. South China Sea.
- d. Arabian sea

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 121 Question Id : 7171 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What new practices have been introduced in horticulture due to Foreign Direct Investment?

- a. Use of poly houses and production of hybrid seeds
- b. Drip irrigation and regulated water use
- c. Use of new plant materials for cultivation of hybrid vegetables
- d. Improvement in organic farming techniques

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 122 Question Id : 7172 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of the Directive Principles of State Policy are based on Gandhian ideals?

- a. Free legal aid
- b. Right to education
- c. No cow slaughter
- d. Equal wages for men and women

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 123 Question Id : 7173 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of these situations would be allowed in the Right to Free Speech?

- a. Send emails questioning the decision to set up Nuclear Plant.
- b. Calling on a community to boycott another community or people.
- c. Scolding children in school for not doing their homework.
- d. Make a film which shows obscenity and sex.

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 124 Question Id : 7174 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

In which area would there be reduction due the increase in the number of factories, cities and roads and infrastructure?

- a. Finance
- b. Environment
- c. Quality of life
- d. Community growth

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 125 Question Id : 7175 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

What does the term BOOT in Solar Energy Production stand for?

- a. Buy – Own- Operate – Transfer
- b. Build - Output – Operate – Trade
- c. Buy – Own – Organise – Transfer
- d. Build – Own – Output – Transfer

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 126 Question Id : 7176 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which form of business allows for private and secure, fast business and allows worldwide competition?

- a. Commerce
- b. Retail Stores
- c. Industries
- d. Private enterprises.

Options :

- 1. ✔ a
- 2. ✖ b
- 3. ✖ c
- 4. ✖ d

Question Number : 127 Question Id : 7177 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

In which position does the present Indian Men's Hockey team captain play in matches?

- a. Defender
- b. Centre half
- c. Goalkeeper
- d. Sweeper

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 128 Question Id : 7178 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

How many countries will be invited to participate in the Commonwealth Games 2018 to be held in Gold Coast, Queensland Australia?

- a. 100
- b. 60
- c. 65
- d. 71

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 129 Question Id : 7179 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which denomination of currency notes of the year 2005 are proposed to be withdrawn because they do not have the safety features of the present currency notes ?

- a. Rs 50 and 100
- b. Rs 5 and 10
- c. Rs 500 and 1000
- d. Rs 1000 and 5000

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 130 Question Id : 7180 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the use of the information from the Geostationary satellites and Low Earth Orbiting Satellites put to in India ?

- a. Remote sensing maps of land use and water resources.
- b. Thematic mapping for E - governance
- c. Timely decision making regarding disaster management.
- d. Planning for the layout of smart cities .

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 131 Question Id : 7181 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In Which State are the French collaborating to develop smart cities which will resist earthquakes, allow tourism, and build ropeways and metro cable cars ?

- a. Karnataka
- b. Himachal Pradesh
- c. Assam
- d. Jammu and Kashmir.

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 132 Question Id : 7182 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A block of wood floats in water with $\frac{4}{5}$ th part under water. If it floats in another liquid $\frac{9}{10}$ th part floats under water. What will be the relative density of the second liquid?

- a. 0.89 g/ml
- b. 0.87 g/ml
- c. 0.90 g/ml
- d. 1.0g/ml

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 133 Question Id : 7183 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one is an example of the effect of Refraction in our everyday life?

- a. Halos are formed around street lights during foggy nights
- b. Moon appears blue on some days and bright orange on others
- c. Mirrors reflect distorted images and enlarge reflection .
- d. Colours of rainbow appear on rainy days in water pools on the road.

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 134 Question Id : 7184 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Heat is the agent that transforms one state of water into another. What is the calorie of heat required to convert 1 gram of ice at 0 degrees centigrade to steam at 100 degrees centigrade?

- a. 660 calories
- b. 36 calories
- c. 40 calories
- d. 720 calories

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 135 Question Id : 7185 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What are the gases use for preparing Ammonia gas?

- a. Nitrogen and Hydrogen
- b. Oxygen and Nitrogen
- c. Oxygen and Neon
- d. Nitrogen and Helium

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 136 Question Id : 7186 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following forms of iron has got the highest carbon content?

- a. Mild steel
- b. Stainless Steel
- c. Wrought Iron
- d. Cast Iron

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 137 Question Id : 7187 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The Integrated Circuit used in computers is made of which element?

- a. Silica
- b. Chromium
- c. Iron Oxide
- d. Silicon

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 138 Question Id : 7188 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which one of these characteristics is a phenotype?

- a. Occurrence of sickle cells
- b. Colour of hair or eyes
- c. Development of a new plant tissue
- d. Stem cells are modified

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 139 Question Id : 7189 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which cell gets depleted when there is excessive bleeding?

- a. Platelets
- b. Lymphocytes
- c. Red Blood corpuscles
- d. Eosinophils

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 140 Question Id : 7190 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What is the use of minerals in our body?

- a. Absorbs foods and increase their retention
- b. Makes the blood increase the red blood cells
- c. Supports cell structure, bone growth
- d. Regulates the heart and the muscles

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 141 Question Id : 7191 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

P is the brother of the daughter of the brother of Q. How is P related to Q?

- a. Mother
- b. Father
- c. Nephew
- d. Niece

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 142 Question Id : 7192 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

DEMPO : IIPRP :: FIGHT : ?

The letters of the word DEMPO are related to those of IIPRP 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. KMJUI
- b. KKJVI
- c. AEDFS
- d. KMJJU

Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✗ c
- 4. ✓ d

Question Number : 143 Question Id : 7193 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

What should be the next term in the following number series?

3, 4, 8, 17, 33, 58,

- a. 89
- b. 94
- c. 90
- d. 95

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 144 Question Id : 7194 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

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

ADGI, CFIK, FILN, JMPR

- a. ORUW
- b. NQTW
- c. ORTW
- d. NQUX

Options :

- 1. ✓ a
- 2. ✗ b
- 3. ✗ c
- 4. ✗ d

Question Number : 145 Question Id : 7195 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which is the odd number-pair?

- a. 7 – 343
- b. 5 – 625
- c. 6 – 216
- d. 8 – 512

Options :

- 1. ✖ a
- 2. ✔ b
- 3. ✖ c
- 4. ✖ d

Question Number : 146 Question Id : 7196 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a code, KNIVES is written as KIENVS. How is OFFICE written in that code?

- a. OFCFIE
- b. OFCIFE
- c. OFECIE
- d. OFCFIE

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✖ c
- 4. ✔ d

Question Number : 147 Question Id : 7197 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a code, 2417 means 'spread the red carpet', 2516 means 'clean the blue carpet' and 2195 means 'dry the blue carpet'. What is the code for 'clean'?

- a. 5
- b. 1
- c. 6
- d. 7

Options :

- 1. ✖ a
- 2. ✖ b
- 3. ✔ c
- 4. ✖ d

Question Number : 148 Question Id : 7198 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The ages of three sisters are in geometric progression. The youngest is 49 years old and the oldest is 64. How old is the remaining sister?

- a. 54
- b. 56
- c. 55
- d. 52

Options :

- 1. ✗ a
- 2. ✓ b
- 3. ✗ c
- 4. ✗ d

Question Number : 149 Question Id : 7199 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A bus starts from A eastwards, turns right after 3 kms and proceeds to a T-junction 1 km away where turns left and goes 2 kms. Then it takes a U-turn. In which direction is it facing now?

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

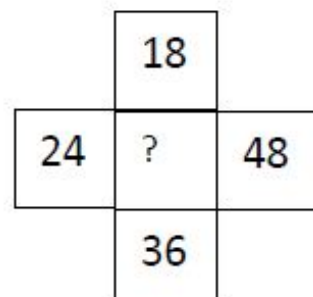
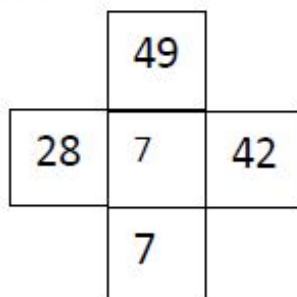
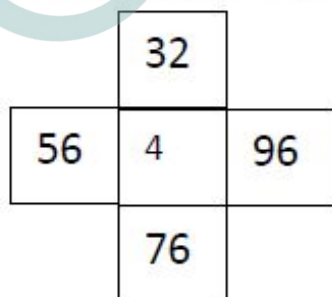
Options :

- 1. ✗ a
- 2. ✗ b
- 3. ✓ c
- 4. ✗ d

Question Number : 150 Question Id : 7200 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Choose the number missing in the third cross:



- a. 12
- b. 18
- c. 9
- d. 6

Options :

- 1. ✗ a

2. ✖ b

3. ✖ c

4. ✔ d

aglasem