Notations:
1. Options shown in green color and with ✓ icon are correct.
2. Options shown in red color and with ✗ icon are incorrect.

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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. $\Delta_{\text{system}}$ decreases
b. $\Delta_{\text{source}}$ 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
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 x 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
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 0.5 A 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 Ω half-watt resistor and a 330 Ω half-watt resistor are connected across a 12 V source. Which one(s) will overheat?
   a. 33 Ω
   b. 330 Ω
   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 μW
   d. 25 mW

Options :
1. **a**
2. **b**
3. **c**
4. **d**

Question Number : 25  Question Id : 7075  Question Type : MCQ  Option Shuffling : No
Which of the following is represented by the symbol $X_L$?

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
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

Which of the following is one of the functions performed by a diode?
- a. filter
- b. amplifier
- c. rectifier
- d. inverter

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.
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
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  

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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  

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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 falls 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
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

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

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 measured?

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

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

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

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
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

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

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

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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

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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:

![Image of an object](image)

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

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

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

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

\[
a. \quad 50.4 \text{ km/s} \\
b. \quad 25.2 \text{ km/s} \\
c. \quad 2.5 \text{ km/s} \\
d. \quad 5.0 \text{ km/s}.
\]
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 \( x = 0.70 \cos \left( \pi \frac{t}{4} \right) \) m, where \( t \) is in seconds. The frequency of the motion is

a. \( \frac{1}{4} \) Hz  
b. \( \frac{1}{8} \) 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 \( 2.1 \times 10^8 \) 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
Two resistors of 2 Ω and 3 Ω are connected in series between two points A and B. A third resistor of 5 Ω is also connected between the same points. When points A and B are connected to terminals of a battery, power dissipated in the 5 Ω resistor is 10 W. The power dissipated in 2 Ω resistor is

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

Options:
1. ** a
2. ** b
3. ** c
4. ✓ d

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

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
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. $2\text{H}_2\text{O}_2 (\text{aq}) \rightarrow 2\text{H}_2\text{O (l)} + \text{O}_2(g)$
   b. $\text{P}_4(\text{s}) + 3\text{OH}^- (\text{aq}) \rightarrow \text{PH}_3(\text{g}) + 3\text{H}_2\text{PO}_4^-$
   c. $\text{S}_8(\text{s}) + 12\text{OH}^- (\text{aq}) \rightarrow 4\text{S}^2(aq) + 2\text{S}_2\text{O}_3^{2-}$aq$ + 6\text{H}_2\text{O(1)}$
   d. $2\text{F}_2(\text{g}) + 2\text{O}^+ (\text{aq}) \rightarrow 2\text{F}^-(\text{aq}) + \text{OF}_2(g) + \text{H}_2\text{O(l)}$
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 BCl₃
Identify the pair of acids from the following options:
   a. "OH and BCl₃
   b. F" and "OH
   c. H" and BCl₃
   d. F" and BCl₃
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
Number of structural isomers for \( \text{C}_4\text{H}_8 \) would be

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

Options:
1. ✗ a  
2. ✗ b  
3. ✔ c  
4. ✗ d

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

Which statement is true for plant respiration?

a. Plants take in \( \text{CO}_2 \) and give out \( \text{O}_2 \) 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
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

Genes are made of

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

Options:
1. ✗ a  
2. ✗ b  
3. ✗ c  
4. ✓ d

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

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
Let N be the greatest positive integer that

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

\( \text{LCM} \) 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.  \( 5^9 \times 7^6 \times (19)^3 \)
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
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
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
A trader bought some goods at a discount of 20% of the list price. He wants 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

For the above question, User had specified 'ignore' during keys upload.

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
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
For the above question, User had specified 'ignore' during keys upload.

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 \( \alpha \) and \( \beta \) are the roots of \( 2x^2-3x-6=0 \) then the equation whose root are \( \alpha^2+2 \) and \( \beta^2+2 \) 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. b
2. ** a
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 \( x^2 + 1 - y^2 + 3xy \) 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
If the mth term of an arithmetic progression is \( \frac{1}{n} \) and its nth term is \( \frac{1}{m} \), then the sum of mn terms is

a. \( \frac{1}{mn} \)

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

\( (1 + \frac{1}{2^2}) + (\frac{1}{2} + \frac{1}{2^4}) + (\frac{1}{2^5} + \frac{1}{2^6}) + \ldots \) to \( \infty \) 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. \( \frac{5}{2} \)

d. 3, 4

Options:
1. ✓a
2. *b
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 $30^0$ and $60^0$ respectively. The height of the building, in m, is

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

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

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

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

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

Correct: 1.0 Wrong: 0.33
Correct: 1.0 Wrong: 0.33
Correct: 1.0 Wrong: 0.33
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
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

Which of the Directive Principles of State Policy are based on Gandhi 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

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
In which area would there be reduction due to 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

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

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
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

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

Options:
1. *a
2. *b
3. *c
4. *d

A block of wood floats in water with 4/5th part under water. If it floats in another liquid 9/10th 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. 1.0 g/ml

Options:
1. *a
2. *b
3. *c
4. *d
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 used 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

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

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
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

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

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
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. KMJUJ
b. KKJYV

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
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:

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

Options:
1. ✗ a
2. b
3. c
4. d