

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:	Junior Engineer 26th Aug Shift 3 Actual
Subject Name:	Junior Engineer
Creation Date:	2015-08-18 12:48:18.0
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Total Marks:	150.0

Junior Engineer

Group Number :	1
Group Id :	3
Group Maximum Duration :	0
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Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0
Group Marks:	150.0

Junior Engineer

Section Id :	3
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:	3
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 301 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Zeroth law of thermodynamics forms the basis of measurement of

Options :

- ✗ Pressure

Question Number : 2 Question Id : 302 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Internal energy is defined by

Options :

1. ✖ Zeroth law of thermodynamics
2. ✔ First law of thermodynamics
3. ✖ Second law of thermodynamics
4. ✖ Law of entropy

Question Number : 3 Question Id : 303 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The concept of overall heat transfer is used in the heat transfer in the case of

Options :

1. ✖ Conduction
2. ✖ Convection
3. ✖ Radiation
4. ✔ Combined mode of heat transfer of conduction and convection

Question Number : 4 Question Id : 304 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The unit of thermal conductivity in S.I. unit is

Options :

1. ✔ W/mK
2. ✖ W²/mK
3. ✖ W/m²K
4. ✖ W/m

Question Number : 5 Question Id : 305 Question Type : MCQ Option Shuffling : No

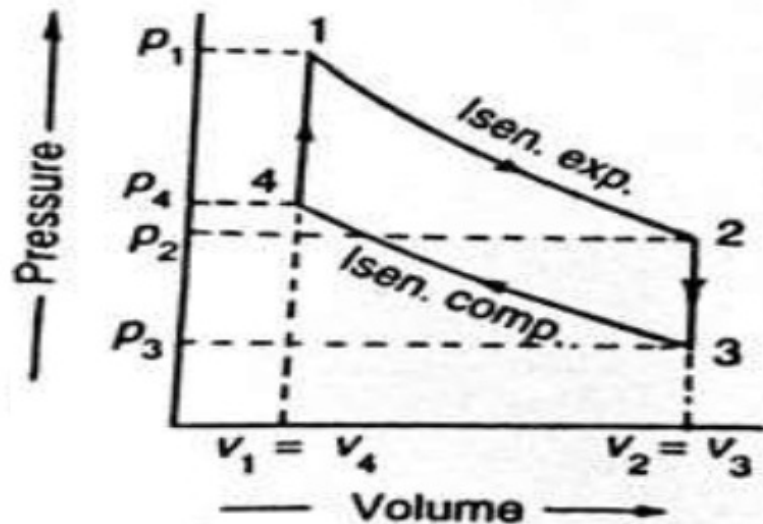
Correct : 1.0 Wrong : 0.33

All radiations in a black body are

Options :

1. ✖ Reflected
2. ✖ Refracted
3. ✖ Transmitted

The given P-V diagram indicates following cycle



Options :

1. ✗ Carnot cycle
2. ✓ Otto cycle
3. ✗ Diesel cycle
4. ✗ Dual cycle

If the cut-off ratio is decreased, the efficiency of diesel cycle

Options :

1. ✓ Increases
2. ✗ Decreases
3. ✗ Remains constant
4. ✗ May increase or decrease

Size of shaper is specified by

Options :

1. ✗ Size of table
2. ✓ Length of stroke
3. ✗ Power of motor
4. ✗ Ratio of forward to return stroke

Correct : 1.0 Wrong : 0.33

Options :

- 2. ☒ Turning
- 3. ☐ Drilling
- 4. ☐ Milling

Question Number : 10 Question Id : 310 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Grey cast iron is usually welded by

Options :

- 1. ☒ Gas welding
- 2. ☐ Resistance welding
- 3. ☐ Arc welding
- 4. ☐ Thermit welding

Question Number : 11 Question Id : 311 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A grinding wheel of 150 mm diameter is rotating at 3000 rpm. The grinding speed is

Options :

- 1. ☒ 7.5π m/sec
- 2. ☐ 15π m/sec
- 3. ☐ 45π m/sec
- 4. ☐ 450π m/sec

Question Number : 12 Question Id : 312 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In Die casting, machining allowance is

Options :

- 1. ☐ Small
- 2. ☐ Large
- 3. ☐ Very large
- 4. ☒ Not provided

Question Number : 13 Question Id : 313 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

- 2. ✖ Forming operation
- 3. ✔ Surface finishing operation
- 4. ✖ Dressing operation

Question Number : 14 Question Id : 314 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The process in which leaving a tab without removing any material is

Options :

- 1. ✖ Notching
- 2. ✔ Lancing
- 3. ✖ Parting
- 4. ✖ Slitting

Question Number : 15 Question Id : 315 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Steel rails are welded by

Options :

- 1. ✖ Gas welding
- 2. ✔ Thermit welding
- 3. ✖ Resistance welding
- 4. ✖ Argon arc welding

Question Number : 16 Question Id : 316 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

D.C. generator works on the principle of

Options :

- 1. ✔ Electromagnetic Induction
- 2. ✖ Ohm's Law
- 3. ✖ Lenz's Law
- 4. ✖ Kirchhoff's Law

Question Number : 17 Question Id : 317 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

- 2. ✖ switchgear protection
- 3. ✖ transformer protection
- 4. ✖ generators

Question Number : 18 Question Id : 318 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The most commonly used moderator in a Nuclear reactor is

Options :

- 1. ✖ graphite
- 2. ✖ oil
- 3. ✖ oxygen
- 4. ✔ heavy water

Question Number : 19 Question Id : 319 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Over speed protection of a generator is done by

Options :

- 1. ✔ Governor
- 2. ✖ Differential protection
- 3. ✖ Over current relay
- 4. ✖ Alarm

Question Number : 20 Question Id : 320 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The motor which does not have winding on it, is

Options :

- 1. ✖ Repulsion
- 2. ✖ Reluctance
- 3. ✔ Hysteresis
- 4. ✖ Universal

Question Number : 21 Question Id : 321 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Options :

- 3. ✖ Conservator
- 4. ✖ Buchholz Relay

Question Number : 22 Question Id : 322 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

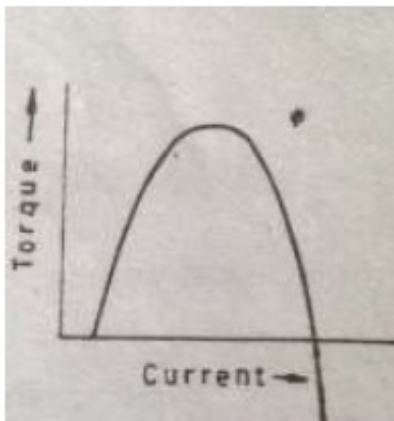
Open circuit test in transformers is conducted to determine

Options :

- 1. ✖ hysteresis losses
- 2. ✖ copper losses
- 3. ✔ core losses
- 4. ✖ eddy current losses

Question Number : 23 Question Id : 323 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The given figure is the Torque-Current characteristics of



Options :

- 1. ✖ Cumulative Compound motor
- 2. ✖ Shunt motor
- 3. ✖ Series motor
- 4. ✔ Differential Compound motor

Question Number : 24 Question Id : 324 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Options :

4. ✖ Electric arc

Question Number : 25 Question Id : 325 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is known as metal rectifier?

Options :

1. ✖ Selenium disc rectifier

2. ✔ Copper oxide rectifier

3. ✖ Gas tube diode

4. ✖ Varactor diode

Question Number : 26 Question Id : 326 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For full-wave rectified sine wave, form factor is

Options :

1. ✖ 1.41

2. ✔ 1.11

3. ✖ 1.5

4. ✖ 1.28

Question Number : 27 Question Id : 327 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Electron pair bonding occurs when atoms

Options :

1. ✖ lack electrons

2. ✖ lack holes

3. ✔ share electrons

4. ✖ share holes

Question Number : 28 Question Id : 328 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a p type semiconductor, minority carriers are

Options :

4. ✖ atoms

Question Number : 29 Question Id : 329 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is a pentavalent material?

Options :

1. ✖ carbon

2. ✖ boron

3. ✔ phosphorus

4. ✖ silicon

Question Number : 30 Question Id : 330 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Another name for a unity gain amplifier is

Options :

1. ✖ difference amplifier

2. ✖ comparator

3. ✖ single ended

4. ✔ voltage follower

Question Number : 31 Question Id : 331 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

At room temperature, the current in intrinsic semiconductor is due to

Options :

1. ✖ holes

2. ✖ electrons

3. ✖ ions

4. ✔ holes and electrons both

Question Number : 32 Question Id : 332 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

$AB + AB' =$

Options :

4. ✖ 0

Question Number : 33 Question Id : 333 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following devices has one input and many outputs?

Options :

- 1. ✖ Multiplexer
- 2. ✔ Demultiplexer
- 3. ✖ flip-flop
- 4. ✖ Counter

Question Number : 34 Question Id : 334 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The number of bits in ASCII is

Options :

- 1. ✔ 7
- 2. ✖ 8
- 3. ✖ 9
- 4. ✖ 10

Question Number : 35 Question Id : 335 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Poise can also be expressed as

Options :

- 1. ✖ Dyne-cm/s²
- 2. ✖ Dyne-cm/s
- 3. ✖ Dyne-s/cm
- 4. ✔ Dyne-s/cm²

Question Number : 36 Question Id : 336 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Number of phases in soil mass is

Options :

4. ✖ 4

Question Number : 37 Question Id : 337 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Bolts are most suitable to carry

Options :

- 1. ✖ Shear
- 2. ✖ Bending
- 3. ✔ Axial tension
- 4. ✖ Shear and bending

Question Number : 38 Question Id : 338 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Spherical shape of droplets of mercury is due to

Options :

- 1. ✖ High density
- 2. ✔ High surface tension
- 3. ✖ High adhesion
- 4. ✖ Water

Question Number : 39 Question Id : 339 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The method of orienting a plane table with two inaccessible points is known as

Options :

- 1. ✖ Intersection
- 2. ✖ Resection
- 3. ✖ Back sighting
- 4. ✔ Two-point problem

Question Number : 40 Question Id : 340 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The most likely time (m) is 'mode' of the

Options :

Question Number : 41 Question Id : 341 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following timbers is suitable for making sports goods?

Options :

1. ☒ Mulberry
2. ☐ Mahogany
3. ☐ Sal
4. ☐ Deodar

Question Number : 42 Question Id : 342 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Cement concrete is a

Options :

1. ☐ Elastic material
2. ☒ Visco-elastic material
3. ☐ Non elastic material
4. ☐ Plastic material

Question Number : 43 Question Id : 343 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is used to measure the discharge?

Options :

1. ☐ Current meter
2. ☒ Venturimeter
3. ☐ Pitot tube
4. ☐ Hotwire anemometer

Question Number : 44 Question Id : 344 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Direct method of contouring is

Options :

1. ☐ A quick method

Question Number : 45 Question Id : 345 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following soils has more plasticity index?

Options :

1. ✖ Sand
2. ✖ Silt
3. ✔ Clay
4. ✖ Gravel

Question Number : 46 Question Id : 346 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Seasoning of timber is required to

Options :

1. ✖ Soften the timber
2. ✖ Harden the timber
3. ✖ Straighten the timber
4. ✔ Remove sap from the timber

Question Number : 47 Question Id : 347 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An instrument transformer is used to extend the range of

Options :

1. ✔ induction instrument
2. ✖ electrostatic instrument
3. ✖ moving coil instrument
4. ✖ PMMC instrument

Question Number : 48 Question Id : 348 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Wattmeter cannot be designed on the principle of

Options :

1. ✖ electrostatic instrument
2. ✖ thermocouple instrument
3. ✔ moving iron instrument

Question Number : 49 Question Id : 349 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Options :

1. ✘ safe guard it against creep
2. ✘ brake the instrument
3. ✘ bring energy meter to stand still
4. ✔ maintain steady speed and equal to driving torque

Question Number : 50 Question Id : 350 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Resistances can be measured with the help of

Options :

1. ✘ wattmeters
2. ✘ voltmeters
3. ✘ ammeters
4. ✔ ohmmeters and resistance bridges

Question Number : 51 Question Id : 351 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

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

Options :

1. ✘ Deflecting device
2. ✘ Controlling device
3. ✘ Damping device
4. ✔ Deflecting, controlling and damping device

Question Number : 52 Question Id : 352 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Per capita water demand is

Options :

1. ✘ average amount of daily water required by one person
2. ✘ monthly average amount of daily water required by one person
3. ✔ annual average amount of daily water required by one person
4. ✘ weekly average amount of daily water required by one person

Question Number : 53 Question Id : 353 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Options :

- 2. ✓ 300 mg/l
- 3. ✗ 250 mg/l
- 4. ✗ 500 mg/l

Question Number : 54 Question Id : 354 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In BOD₅ determination of sewage, the initial dissolved oxygen is measured to be 8.3 mg/l. However, after 5 day incubation at 20 °C temperature, the dissolved oxygen is found to be 2.3 mg/l. If the dilution factor is 1:60, the BOD₅ of the sewage would be

Options :

- 1. ✗ 360 mg/l
- 2. ✗ 260 mg/l
- 3. ✓ cannot be determined
- 4. ✗ 6.0 mg/l

Question Number : 55 Question Id : 355 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The continuous exposure of high concentration of carbon monoxide may cause

Options :

- 1. ✗ damage of alveoli
- 2. ✗ kidney damage
- 3. ✗ failure of respiratory system
- 4. ✓ coma followed by death

Question Number : 56 Question Id : 356 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The frequency range of audibility of a healthy person with perfect hearing is

Options :

- 1. ✗ 200 to 10000 Hz
- 2. ✗ 2000 to 5000 Hz
- 3. ✓ 20 to 20,000 Hz

Question Number : 57 Question Id : 357 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The green house gases as per their increasing order of effectiveness are

Options :

1. ☒ CO₂, CH₄, N₂O and CFC
2. ☐ CH₄, CO₂, N₂O and CFC
3. ☐ N₂O, CH₄, CO₂ and CFC
4. ☐ CFC, CH₄, CO₂ and N₂O

Question Number : 58 Question Id : 358 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Printer is a(an) _____

Options :

1. ☐ Input device
2. ☒ Output device
3. ☐ Storage device
4. ☐ Both input and output device

Question Number : 59 Question Id : 359 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not true about EPROM?

Options :

1. ☐ Random access memory
2. ☐ Erasable programmable read only memory
3. ☐ Non-volatile memory
4. ☒ Sequential access memory

Question Number : 60 Question Id : 360 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following components of CPU temporarily stores data for ALU operations?

Options :

1. ☐ Arithmetic and Logic Unit (ALU)
2. ☐ Control Unit (CU)

Question Number : 61 Question Id : 361 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

BCD coding scheme uses _____ bits to code decimal digits.

Options :

1. ☒ 4
2. ☐ 8
3. ☐ 16
4. ☐ 32

Question Number : 62 Question Id : 362 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The binary representation of 195.5 is _____

Options :

1. ☐ $(11000001.01)_2$
2. ☐ $(11000001.11)_2$
3. ☐ $(11000011.01)_2$
4. ☒ $(11000011.10)_2$

Question Number : 63 Question Id : 363 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Considering X as a binary variable, the Boolean expression $X.1$ is equivalent to

Options :

1. ☒ X
2. ☐ 1
3. ☐ 0
4. ☐ X'

Question Number : 64 Question Id : 364 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The 2's compliment of the binary number $(00000000)_2$ is

Options :

1. ☐ $(11111111)_2$
2. ☒ $(00000000)_2$
3. ☐ $(10101010)_2$
4. ☐ $(01010101)_2$

Question Number : 65 Question Id : 365 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Options :

1. ✖ DOM
2. ✖ MODEM
3. ✔ OLE
4. ✖ OpenDoc

Question Number : 66 Question Id : 366 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Class 'B' IP addresses use _____ bits for Network ID.

Options :

1. ✖ 8
2. ✔ 16
3. ✖ 24
4. ✖ 32

Question Number : 67 Question Id : 367 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of the following is not a Web browser?

Options :

1. ✖ Netscape Navigator
2. ✖ NetSurf
3. ✔ XML
4. ✖ Opera

Question Number : 68 Question Id : 368 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The diagonal scale is used to represent

Options :

1. ✔ three consecutive units
2. ✖ two consecutive units
3. ✖ diagonal of square
4. ✖ diagonal of rectangle

Question Number : 69 Question Id : 369 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

- 2. ☒ Top view
- 3. ☐ Side view
- 4. ☐ Both front and top views

Question Number : 70 Question Id : 370 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If both the front and top views of a plane are straight lines, it may be

Options :

- 1. ☒ perpendicular to both horizontal and vertical planes
- 2. ☐ parallel to horizontal plane and perpendicular to vertical plane
- 3. ☐ perpendicular to horizontal plane and parallel to vertical plane
- 4. ☐ parallel to both horizontal and vertical planes

Question Number : 71 Question Id : 371 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For orthographic projections, BIS recommends the following projections.

Options :

- 1. ☐ Fourth-angle projection
- 2. ☐ Third-angle projection
- 3. ☒ First-angle projection
- 4. ☐ Second-angle projection

Question Number : 72 Question Id : 372 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A square lamina is perpendicular to the H.P. and inclined to V.P. Its

Options :

- 1. ☒ V.T. will be perpendicular to the reference line
- 2. ☐ H.T. will be parallel to the reference line
- 3. ☐ V.T. will be parallel to the reference line
- 4. ☐ V.T. will be inclined to the reference line

Question Number : 73 Question Id : 373 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

- 2. ✖ 30 m
- 3. ✔ 40 m
- 4. ✖ 80 m

Question Number : 74 Question Id : 374 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A cubical box (each side 10 cm) of weight 19.6 N is placed on a table. The pressure exerted by the box on the table is

Options :

- 1. ✖ 19.6 N/m^2
- 2. ✔ $1.96 \times 10^3 \text{ N/m}^2$
- 3. ✖ 1.96 N/m^2
- 4. ✖ $0.98 \times 10^3 \text{ N/m}^2$

Question Number : 75 Question Id : 375 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Rohan does 150 J of work in 5 s. The power delivered by him is

Options :

- 1. ✔ 30 W
- 2. ✖ 15 W
- 3. ✖ 150 W
- 4. ✖ 750 W

Question Number : 76 Question Id : 376 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For a sound wave, the amplitude is

Options :

- 1. ✖ the distance between two consecutive crests
- 2. ✖ the distance between two consecutive troughs
- 3. ✖ the height difference between a crest and a trough
- 4. ✔ one-half the height difference between a crest and a trough.

Question Number : 77 Question Id : 377 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

1. ✖ 20 cm
2. ✖ 6.67 cm
3. ✔ 4.0 cm
4. ✖ 2.0 cm.

Question Number : 78 Question Id : 378 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Two conducting wires A (resistance R_A) and B (resistance R_B) are made of same material and have the same length. If the diameter of wire B is twice that of wire A, the ratio R_A / R_B is

Options :

1. ✔ 4
2. ✖ $1/4$
3. ✖ $1/2$
4. ✖ 1.

Question Number : 79 Question Id : 379 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

For its complete combustion, one mole of an alkane required 3.5 mole of oxygen gas at the same temperature and pressure. What is the name of alkane?

Options :

1. ✖ Methane
2. ✔ Ethane
3. ✖ Propane
4. ✖ Butane

Question Number : 80 Question Id : 380 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following is a molecule of an element?

Options :

4. ✖ CO_2

Question Number : 81 Question Id : 381 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Rancidity of oils and fats can be controlled by controlling the process of

Options :

1. ✖ Decomposition

2. ✖ Neutralization

3. ✖ Reduction

4. ✔ Oxidation

Question Number : 82 Question Id : 382 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

An element X contains only one electron in its outermost shell. Which of the following statements are correct about X ?

i) It forms an acidic oxide.

ii) It forms a basic oxide.

iii) It is a good conductor of electricity.

iv) It has a dull and non lustrous surface

Options :

1. ✖ (i) & (iii)

2. ✔ (ii) & (iii)

3. ✖ (i) & (iv)

4. ✖ (iii) & (iv)

Question Number : 83 Question Id : 383 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following can act as an olfactory indicator?

Options :

1. ✖ Phenolphthalein

4. ✖ Litmus solution

Question Number : 84 Question Id : 384 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following elements is the most metallic in nature?

Options :

1. ✔ Na

2. ✖ Al

3. ✖ Li

4. ✖ B

Question Number : 85 Question Id : 385 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Scientific names of living beings consist of

Options :

1. ✖ one word

2. ✔ two words

3. ✖ four words

4. ✖ more than four words

Question Number : 86 Question Id : 386 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Human heart is made of cardiac muscle fibres because these are

Options :

1. ✖ striated and involuntary

2. ✔ involuntary and without fatigue

3. ✖ voluntary and do not stop contracting

Question Number : 87 Question Id : 387 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Leaves of cacti are modified into spines to reduce transpiration. This is an adaptation to which feature of their habitat?

Options :

1. ☒ Scarcity of water
2. ☐ Lack of rainfall
3. ☐ Hot daytime
4. ☐ Cool nights

Question Number : 88 Question Id : 388 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which organ of the digestive system gets affected by the disease Jaundice/Hepatitis?

Options :

1. ☒ Liver
2. ☐ Pancreas
3. ☐ Stomach
4. ☐ Kidney

Question Number : 89 Question Id : 389 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which out of the following is **not** a Green House Gas?

Options :

1. ☐ Carbon Dioxide
2. ☒ Nitrogen
3. ☐ Sulphur Dioxide
4. ☐ Nitrous Oxide

Question Number : 90 Question Id : 390 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

- 2. ✖ Ribosomes
- 3. ✖ Vacuoles
- 4. ✖ Golgi

Question Number : 91 Question Id : 391 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The HCF of two numbers is 15 and their LCM is 270. If one number is 45, the other number is

Options :

- 1. ✖ 18
- 2. ✔ 90
- 3. ✖ 81
- 4. ✖ 675

Question Number : 92 Question Id : 392 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The largest number which divides 247 and 319, leaving remainders 7 and 4 respectively is

Options :

- 1. ✔ 15
- 2. ✖ 30
- 3. ✖ 45
- 4. ✖ 56

Question Number : 93 Question Id : 393 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

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

Options :

3. ✓ 8 : 5

4. ✗ 5 : 8

Question Number : 94 Question Id : 394 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If 8, 12, 14, x are in proportion, then x is equal to

Options :

1. ✗ 18

2. ✗ 20

3. ✓ 21

4. ✗ 28

Question Number : 95 Question Id : 395 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Successive discounts of 40% and 20% are equivalent to a single discount of

Options :

1. ✗ 60%

2. ✗ 55%

3. ✗ 54%

4. ✓ 52%

Question Number : 96 Question Id : 396 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The simple interest on rupees 800 for $\frac{3}{2}$ years at 5% per annum is

Options :

1. ✓ ₹100

2. ✗ ₹ 125

3. ✗ ₹ 150

Question Number : 97 Question Id : 397 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The compound interest on rupees 12000 for 1 year at 10% per annum compounded half yearly is

Options :

1. ✖ ₹ 1200
2. ✔ ₹ 1230
3. ✖ ₹ 2520
4. ✖ ₹ 2680

Question Number : 98 Question Id : 398 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If CP of 25 articles is equal to SP of 20 articles, then in the whole transaction there is a profit of

Options :

1. ✖ 10%
2. ✖ 20%
3. ✔ 25%
4. ✖ 30%

Question Number : 99 Question Id : 399 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

To gain 25% after allowing a discount of 10%, the shopkeeper should mark the price of the article which cost him ₹ 720 as

Options :

1. ✖ 10%
2. ✖ 20%
3. ✖ 25%

Question Number : 100 Question Id : 400 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A shopkeeper mixes 26 kg of rice which costs him ₹ 100 per kg with 30 kg of rice which costs him ₹ 180 per kg. He sells the mixed rice at ₹ 150 per kg.. The percentage gain is

Options :

1. ✖ 10%
2. ✖ $\frac{100}{21} \%$
3. ✖ 7 %
4. ✔ 5 %

Question Number : 101 Question Id : 401 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In two vessels A and B, the spirit and water are in the ratio of 5 : 2 and 7 : 6 respectively. The ratio in which these are mixed to obtain new mixture which contains spirit and water in the ratio 3 : 2 is

Options :

1. ✖ 5 : 12
2. ✖ 3 : 2
3. ✔ 7 : 13
4. ✖ 35 : 12

Question Number : 102 Question Id : 402 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The speed of a boat in still water is 15 km/hr. The speed of the stream is 3 km/hr. The time taken to go 12 km downstream in minutes is

Options :

1. ✔ 40

4. ✖ 55

Question Number : 103 Question Id : 403 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A train 200 m long is moving at 40 km/hr. The time in seconds, it will take to pass another train 150 long which is moving at 50 km/h in the opposite direction from the moment they meet is

Options :

1. ✖ 8

2. ✖ 12

3. ✔ 14

4. ✖ 117

Question Number : 104 Question Id : 404 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A can do a piece of work in 15 days and B can do the same work in 10 days. If they work together, number of days required to complete the same work is

Options :

1. ✖ 5

2. ✔ 6

3. ✖ 7

4. ✖ 8

Question Number : 105 Question Id : 405 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

P and Q can do a piece of work in 10 days, Q and R in 12 days and R and P in 15 days. In how many days P alone can do the same work?

Options :

1. ✔ 24

4. ✖ $\frac{40}{3}$

Question Number : 106 Question Id : 406 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The average of first six even whole numbers is

Options :

1. ✔ 5

2. ✖ 6

3. ✖ 7

4. ✖ 8

Question Number : 107 Question Id : 407 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The average marks of students of section A and B are respectively 60 and 70.
The number of students in section A is 47 and in section B is 53. The average marks of both sections taken together are

Options :

1. ✖ 65.5

2. ✔ 65.3

3. ✖ 65.6

4. ✖ 65.8

Question Number : 108 Question Id : 408 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The first term of an AP is -5 and third term is 17. Its seventh term is

Options :

1. ✖ 31

2. ✖ 41

Question Number : 109 Question Id : 409 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The 12^{th} term of the G.P $1, -3, 9, -27, \dots$, is

Options :

1. ✖ 3^{12}
2. ✖ -3^{12}
3. ✖ 3^{11}
4. ✔ -3^{11}

Question Number : 110 Question Id : 410 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A ladder just reaches the top of a wall. The foot of the ladder is 8m away from the foot of the wall. The ladder makes an angle of 60° with the ground. The length of the ladder is

Options :

1. ✖ 4 m
2. ✔ 16 m
3. ✖ $\frac{16\sqrt{3}}{3}$ m
4. ✖ $16\sqrt{3}$ m

Question Number : 111 Question Id : 411 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

From a point on the bridge across a river the angle of depressions of the bank on the opposite side of the river are 60° and 45° respectively. If the bridge is at a height of 3m from the bank, the width of the river is

Options :

1. ✖ $2(\sqrt{3} + 1)$ m

4. ✓ $3 + \sqrt{3} m$

Question Number : 112 Question Id : 412 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

If $(x - 1)$ is a factor of $3x^3 - 2ax^2 - 3x + 6$, then a is equal to

Options :

1. ✓ 3

2. ✗ -3

3. ✗ $+6$

4. ✗ -6

Question Number : 113 Question Id : 413 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

One of the factors of $(81x^2 - 1) + (1 + 9x)^2$ is

Options :

1. ✓ $18x$

2. ✗ $9 + x$

3. ✗ $9 - x$

4. ✗ $9x - 1$

Question Number : 114 Question Id : 414 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

All values of k for which $x^2 - kx + 9 = 0$ has real roots is

Options :

1. ✗ $-6 \leq k \leq 6$

2. ✓ $6 \leq k \leq -6$

Question Number : 115 Question Id : 415 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The sum and product of the roots of the equation $x^2 - 8x + 4 = 0$ are respectively

Options :

1. ✖ - 8, 4
2. ✖ 8, - 4
3. ✔ 8, 4
4. ✖ - 8, - 4

Question Number : 116 Question Id : 416 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The football player has to leave the field if the referee shows him

Options :

1. ✖ Green card once
2. ✖ Yellow card once
3. ✖ Green card twice
4. ✔ Yellow card twice or Red card once

Question Number : 117 Question Id : 417 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The first Indian to win an Olympic gold medal in an individual capacity was

Options :

1. ✔ Abhinav Bindra
2. ✖ Milkha Singh
3. ✖ PT Usha
4. ✖ Vijender Kumar

Question Number : 118 Question Id : 418 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

1. ✖ Brain
2. ✔ Spinal Cord
3. ✖ Upper arm muscles
4. ✖ bones of the hand

Question Number : 119 Question Id : 419 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a green house, paraffin is ignited to enhance photosynthesis in the plants as it provides

Options :

1. ✖ Water
2. ✔ Carbon-di-oxide
3. ✖ Oxygen
4. ✖ More light

Question Number : 120 Question Id : 420 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which of the following is not an insect?

Options :

1. ✔ Spider
2. ✖ Butterfly
3. ✖ Beetle
4. ✖ Termite

Question Number : 121 Question Id : 421 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

- 2. ✖ Ammonium Hydroxide
- 3. ✔ Caustic Soda
- 4. ✖ Sodium Chloride

Question Number : 122 Question Id : 422 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Students were asked to present a “balanced equation” regarding Photosynthesis. Which is the correct equation?

Options :

- 1. ✖ $6\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$
- 2. ✔ $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
- 3. ✖ $\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$
- 4. ✖ $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$

Question Number : 123 Question Id : 423 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which out of the F, Br, Ca and Mg which are important elements because their salts are useful to humans may be grouped as halogens?

Options :

- 1. ✔ F and Br
- 2. ✖ F and Ca
- 3. ✖ Br and Mg
- 4. ✖ Ca and Br

Question Number : 124 Question Id : 424 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A maximum of how many partners can a trading business firm have according to Indian Partnership Act?

Options :

3. ✖ 10

4. ✖ 5

Question Number : 125 Question Id : 425 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

We are able to walk on the ground because of

Options :

1. ✔ Friction

2. ✖ Gravitation

3. ✖ Rotation

4. ✖ Combination of gravity and Rotation

Question Number : 126 Question Id : 426 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Scissors belong to the category of simple machines called levers. It is a first class lever because

Options :

1. ✔ Fulcrum (fixed point) is between load and effort

2. ✖ Load is between Fulcrum and effort

3. ✖ Effort is between fulcrum and load

4. ✖ It does not have a fulcrum

Question Number : 127 Question Id : 427 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

As I was folding my blanket of synthetic fibers, there were sparks due to generation of

Options :

1. ✔ Frictional electricity

2. ✖ Current electricity

Question Number : 128 Question Id : 428 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The latest country to give up its national currency and adopt “euro” as its currency is

Options :

1. ✓ Latvia
2. ✗ Lebanon
3. ✗ Brazil
4. ✗ Italy

Question Number : 129 Question Id : 429 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Who presides over the present Lok Sabha when parliament session is on?

Options :

1. ✗ President, Pranab Mukherji
2. ✗ Vice President, Hamid Ansari
3. ✗ Prime Minister, Narendra Modi
4. ✓ Speaker, Sumitra Mahajan

Question Number : 130 Question Id : 430 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

BCMI project connects Bangladesh, China and India with

Options :

1. ✗ Manila
2. ✓ Myanmar
3. ✗ Malaysia
4. ✗ Morocco

Question Number : 131 Question Id : 431 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Options :

3. ✖ Narmada

4. ✖ Kaveri

Question Number : 132 Question Id : 432 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The making of 'maps' is called

Options :

1. ✖ Calligraphy

2. ✖ Numismatics

3. ✔ Cartography

4. ✖ Philately

Question Number : 133 Question Id : 433 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

What is global warming and climate change due to?

Options :

1. ✔ Accumulation of Carbon dioxide in the atmosphere

2. ✖ Ozone hole

3. ✖ Photo chemical smog

4. ✖ UV rays of sunlight falling on earth

Question Number : 134 Question Id : 434 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The Indian constitution was written on 26/11/1949 and came into force on

Options :

1. ✖ Same day

2. ✔ 26.01.1950

3. ✖ 15.08.1950

Question Number : 135 Question Id : 435 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

A few children between ages 8 and 14 were rescued from a factory where they worked under inhuman conditions. Which fundamental right of the constitution made this possible?

Options :

1. ✖ Right to Education
2. ✖ Right to Freedom of Speech
3. ✔ Right against exploitation
4. ✖ Right to Freedom of Religion

Question Number : 136 Question Id : 436 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The relationship between quantity, revenue and price is

Options :

1. ✔ Quantity times Price = Revenue
2. ✖ Revenue times Price = Quantity
3. ✖ Quantity times Revenue = Price
4. ✖ Price times Quantity = Current price

Question Number : 137 Question Id : 437 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Pablo Picasso's creation 'Guernica' was based on consequences of

Options :

1. ✔ Spanish civil war
2. ✖ Sudanese civil war
3. ✖ Second world war
4. ✖ American war of independence

Question Number : 138 Question Id : 438 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

- 3. ✖ Lala Lajpat Rai
- 4. ✔ Lal Bahadur Shastri

Question Number : 139 Question Id : 439 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Who was the last Governor General in the two century rule of the British in India?

Options :

- 1. ✖ Lord Clive
- 2. ✖ Sir Warren Hastings
- 3. ✔ Lord Mountbatten
- 4. ✖ Lord Cornwallis

Question Number : 140 Question Id : 440 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which of the following statements is not true?

Options :

- 1. ✖ Amartya Sen is the only economist from India/of Indian origin to have won the Nobel Prize for Economics
- 2. ✔ Amartya Sen is also credited with developing the input output method with C.V. Raman
- 3. ✖ Amartya Sen received the Nobel Prize in 1998 for his contribution to welfare economics
- 4. ✖ Amartya Sen is also known as a champion of nationalism, secularism

Question Number : 141 Question Id : 441 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Pointing to a photograph Rohit said, "His father's brother is my brother's father."
How is Rohit related to the man in the photograph?

Options :

- 1. ✔ cousin

4. ✖ brother

Question Number : 142 Question Id : 442 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The first two numbers on the left of the sign '::' are related in a certain way. The same relationship holds for the second pair of numbers on the right side of the sign '::' of which one is missing. Find the missing one from the alternatives.

16 : 27 :: 36 : ?

Options :

- 1. ✖ 140
- 2. ✔ 125
- 3. ✖ 112
- 4. ✖ 84

Question Number : 143 Question Id : 443 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The two words on the left side of the sign '::' are related in a certain way. The same relationship holds for the second pair of words on the right side of the sign '::' of which one is missing. Find the missing one from the alternatives.

Microphone : Loud :: Microscope : ?

Options :

- 1. ✖ Bacteria
- 2. ✖ Reflect
- 3. ✖ Examine
- 4. ✔ Magnify

Question Number : 144 Question Id : 444 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Six friends A, B, C, D, E and F are sitting in a row. A is not sitting next to C or D. There are two persons between D and F. D is next to B, who is in one of the extremes. Who is sitting in the other extreme?

Options :

Question Number : 145 Question Id : 445 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Arrange the following words in a meaningful logical sequence and choose the appropriate number sequence from the alternatives.

1. Medicine 2. Injury 3. Doctor 4. Accident 5. Cure 6. Hospital

Options :

1.  4, 2, 3, 6, 1, 5

2.  5, 6, 3, 1, 2, 4

3.  4, 2, 6, 1, 3, 5

4.  4, 2, 6, 3, 1, 5

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

Question Number : 146 Question Id : 446 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The numbers in each group are related in a certain way. Choose the correct number from among the alternatives that will replace the question mark.

(3 [34] 5) (4 [65] 7) (6 [?] 9)

Options :

1.  85

2.  107

3.  117

4.  128

Question Number : 147 Question Id : 447 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

In a certain language, '296' means 'adults are educated'; '7825' means 'rich persons are nice'; and '9257' means 'educated persons are rich'. Which digit means 'educated' in that language?

Options :

1.  9

2.  6

Question Number : 148 Question Id : 448 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If 'METHOD' is coded as 'LFRJLG', then 'GROUND' will be coded as:

Options :

1. ✖ FSMWLG
2. ✔ FSMWKG
3. ✖ ESMWKG
4. ✖ FSNWKG

Question Number : 149 Question Id : 449 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Harsh's school bus picks him up from his home. Then it takes one left turn and two right turns to reach his school. If the bus is facing North-West when it reaches the school, which direction was the bus facing at Harsh's home?

Options :

1. ✔ South-West
2. ✖ South-East
3. ✖ North-East
4. ✖ South

Question Number : 150 Question Id : 450 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The numbers in the matrix given below follow a certain trend row-wise and and/or column wise. Study the trend and choose the number which will replace the question mark?

9	11	21
24	29	?
6	7	14

Options :

1. ✖ 43
2. ✖ 53

