Railway Recruitment Board

Notations:

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

Question Paper Name: Junior Engineer 26th Aug Shift 1 Actual

Subject Name: Junior Engineer

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Junior Engineer

Group Number:	1
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Group Maximum Duration:	0
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Junior Engineer

Section Id: 1
Section Number: 1
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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: 1
Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 1 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Which of the following is an extensive property?

Options:

Pressure

- 2. W Heat capacity
- 💂 🔭 Temperature
- 4 * Specific volume

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

Correct : 1.0 Wrong : 0.33

Kelvin Planck's law deals with

Options:

- Conservation of work
- Conservation of heat
- Conservation of heat into work
- Conservation of work into heat

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

Correct: 1.0 Wrong: 0.33

In which of the following mechanisms, is heat conducted in liquid and gas

Options:

- Lattice vibration
- Transportation of free electrons
- Collisions and diffusion
- No heat conducted

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

Correct : 1.0 Wrong : 0.33

An essential requirement for the transfer of heat from one body to another body is that

Options:

- 🔒 Both bodies must be solids
- Both bodies must be in contact
- Representation of the two bodies must be different
- Temperatures of the two bodies must be same

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

Correct: 1.0 Wrong: 0.33

The silencer of an internal combustion engine

Options: 1. A Reduces noise Decreases break specific fuel consumption Increases break specific fuel consumption Has no effect on its efficiency Question Number: 6 Question Id: 6 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Diesel engines are generally **Options:** Quality governed Quantity governed Combination of quality and quantity governed 4 * Heat and mass governed Question Number: 7 Question Id: 7 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The theoretically correct mixture of air and petrol is **Options:** 10:1 , , 15:1 3 20:1 ₄ **×** 25 : 1 Question Number: 8 Question Id: 8 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Trepanning operation is used for **Options:** Bevelling the edges Finishing the ends of job 3 Cutting grooves

Producing large holes

Correct: 1.0 Wrong: 0.33 The gases used in TIG welding are **Options:** Helium and neon Argon and helium Ozone and neon Carbondioxide and nitrogen Question Number: 10 Question Id: 10 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** In centrifugal casting, the cores are generally made of **Options:** Wax " Plastic Plaster of Paris ∠ Cores are not used Question Number: 11 Question Id: 11 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Calculate the tail stock set over to turn a taper of 1 in 10 on a job of 60 mm length **Options:** 1 × 6 mm 2 🧳 3 mm 👱 10 mm 60 mm Question Number: 12 Question Id: 12 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The maximum flame temperature occurs **Options:**

At the outer cone

2 At the inner cone

Between the outer and inner cone At the torch tip Question Number: 13 Question Id: 13 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Down milling is also known as **Options:** Conventional milling Climb milling End milling Face milling Question Number: 14 Question Id: 14 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Bolt heads are manufactured by **Options:** Swagging * 2. * Roll forging 3. Tumbling Upset forging Question Number: 15 Question Id: 15 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The resistance of a conductor does not depend upon **Options:** Shape of cross section Temperature 3. Material Length

Options:
Projection
2. * Seam
3. * Flash
4. Carbon arc
Question Number: 17 Question Id: 17 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Which of the following motors will have the highest "no load" speed?
Options:
Shunt motor
_{2. ✓} Series motor
3. Cumulative Compound motor
Differential Compound motor
Question Number: 18 Question Id: 18 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 In the DC motor, iron losses occur in
Options:
Field
2. Armature
Brushes
4. * Commutator
Question Number: 19 Question Id: 19 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
The number of poles in a phase induction motor at 50 Hz and running at 1500 rpm will be
Options:
_{1. *} 2
2. * 3
3. 4
_{4.} * 5

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

Correct : 1.0 Wrong : 0.33 A power plant usually works on **Options:** Otto cycle Binary vapour cycle Brayton cycle 4. 🗸 Rankine cycle Question Number: 21 Question Id: 21 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Turbine used for low head is **Options:** Kaplan turbine 2. Francis turbine 3. Pelton Wheel turbine Propellerturbine Question Number: 22 Question Id: 22 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Transformer ratings are usually expressed in **Options:** ı. ✓ kVA 2 * kW з 🙀 kWh 4. * kVAR Question Number: 23 Question Id: 23 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A step up transformer increases **Options:** power 2 x resistance

3. ✓ voltage

```
4. * frequency
Question Number: 24 Question Id: 24 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
In an AC circuit, the ratio of kW / kVA represents
Options:
Power factor
 Form factor
    Load factor
     Diversity factor
Question Number: 25 Question Id: 25 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 Depletion layer is found in
Options:
     p type semiconductors
     n type semiconductors
intrinsic semiconductors
Question Number: 26 Question Id: 26 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 The energy gap in a semiconductor is
Options:
1. × zero
    infinite
3. 🗶 very high
_{4.} of the order of 1 eV
Question Number: 27 Question Id: 27 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
```

BJT stands for

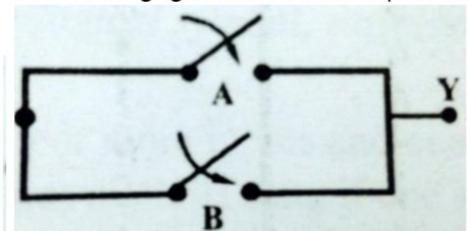
Binomial Junction Terminal

- 2. Dipolar Junction Transistor
- Binomial Junction Transistor
- 🗸 🙀 Bipolar Junction Terminal

 $Question\ Number: 28\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct : 1.0 Wrong : 0.33

The following figure is an electrical equivalent of



Options:

- NOT gate
- 🍃 🍃 OR gate
- 💂 NOR gate
- NAND gate

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

Correct : 1.0 Wrong : 0.33

The hexadecimal equivalent of the decimal number 210 is

Options:

- 1. * H1
- 2 * F2
- _{3. ✔} D2
- 4. # H2

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

Correct: 1.0 Wrong: 0.33

The number of atoms in a body centred unit cell is

Options:

1. * 1

```
2. 2
```

1

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

Correct: 1.0 Wrong: 0.33

Ideal operational amplifier has input impedance of

Options:

- zero
- 2. v infinity
- 3. ***** 1 ohm
- 4 × 0.1 ohm

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

Correct: 1.0 Wrong: 0.33

Theoretically, a bridge rectifier has a maximum efficiency of

Options:

- 84%
- 2 * 48.2%
- 82.2%
- 81.2%

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

Correct: 1.0 Wrong: 0.33

Avalanche breakdown is primarily dependent on the phenomenon of

Options:

- , Doping
- 2 Collision
- 3 . Ionisation
- 4 V Recombination

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

Correct: 1.0 Wrong: 0.33

A UJT contains **Options:** 4 pn junctions 2 × 3 pn junctions 2 pn junctions 1 pn junction Question Number: 35 Question Id: 35 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** If a material has identical properties in all directions, it is said to be **Options:** 1 * Homogeneous 2. 🗸 Isotropic 3 × Elastic Orthotropic Question Number: 36 Question Id: 36 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** If the plasticity index of a soil mass is zero, the soil is **Options:** Loess 2 🙎 Clayey silt з 🙀 Silt 4 V Sand Question Number: 37 Question Id: 37 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In RCC beams, as the percentage area of tensile steel increases **Options:** Depth of neutral axis increases Depth of neutral axis decreases Depth of neutral axis does not change

Lever arm increases

Question Number: 38 Question Id: 38 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Fluid is a substance which offers no resistance to change of **Options:** 1 * Volume Pressure 3 🗸 Shape 4 # Flow Question Number: 39 Question Id: 39 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The invar tape is made of an alloy of **Options:** Copper and steel Brass and nickel Brass and steel Nickel and steel Question Number: 40 Question Id: 40 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Gantt chart provides information about **Options:** Break even point analysis Production schedule Material handling layout Determining selling price Question Number: 41 Question Id: 41 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 When water is added to cement **Options:** Chemical reaction starts 🗴 😦 Heat is absorbed 3.

✓ Heat is generated

Impurities are washed out Question Number: 42 Question Id: 42 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Pascal-second is the unit of **Options:** Pressure Kinematic viscosity Dynamic viscosity Surface tension Question Number: 43 Question Id: 43 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Which of the following is not used in measuring perpendicular offsets? **Options:** Line ranger Steel tape Optical square Cross staff Question Number: 44 Question Id: 44 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A fully saturated soil is said to be **Options:** One phase system Two phase system with soil and air

Three phase system

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

Two phase system with soil and water

Correct : 1.0 Wrong : 0.33

Which of the following trees yields hard wood?

- Deodar
- 2 K Chir
- 3 🗸 Shishum
- 4. Pine

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

Correct: 1.0 Wrong: 0.33

IS 800 : 2007 is based on

Options:

- 🚬 Elastic design method
- 🚬 Ultimate load method
- 3 * Working stress method
- Limit state method

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

Correct: 1.0 Wrong: 0.33

An ohmmeter is a

Options:

- 1. * moving iron instrument
- 🗝 🧳 moving coil instrument
- 🦡 😦 dynamometer instrument
- 4 * hot wire meter

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

Correct: 1.0 Wrong: 0.33

For measuring a very high resistance we should use

Options:

- Kelvin's double bridge
- y Wheat stone bridge
- 3 🧹 Meggar
- Schering bridge

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

Correct : 1.0 Wrong : 0.33

The electrical power to a meggar is provided by Options: 1. * battery 2. * permanent magnet D.C. generator

AC generator

either AC or DC generator

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

Correct : 1.0 Wrong : 0.33

In a meggar, controlling torque is provided by

Options:

- 1 spring
- 2 🗶 gravity
- _{3.} ✓ coil
- 4 * eddy current

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

Correct: 1.0 Wrong: 0.33

The operating voltage of a meggar is about

Options:

- 1 × 6 V
- 2 × 12 V
- 3. × 40 V
- 4 🗸 100 V

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

Correct : 1.0 Wrong : 0.33

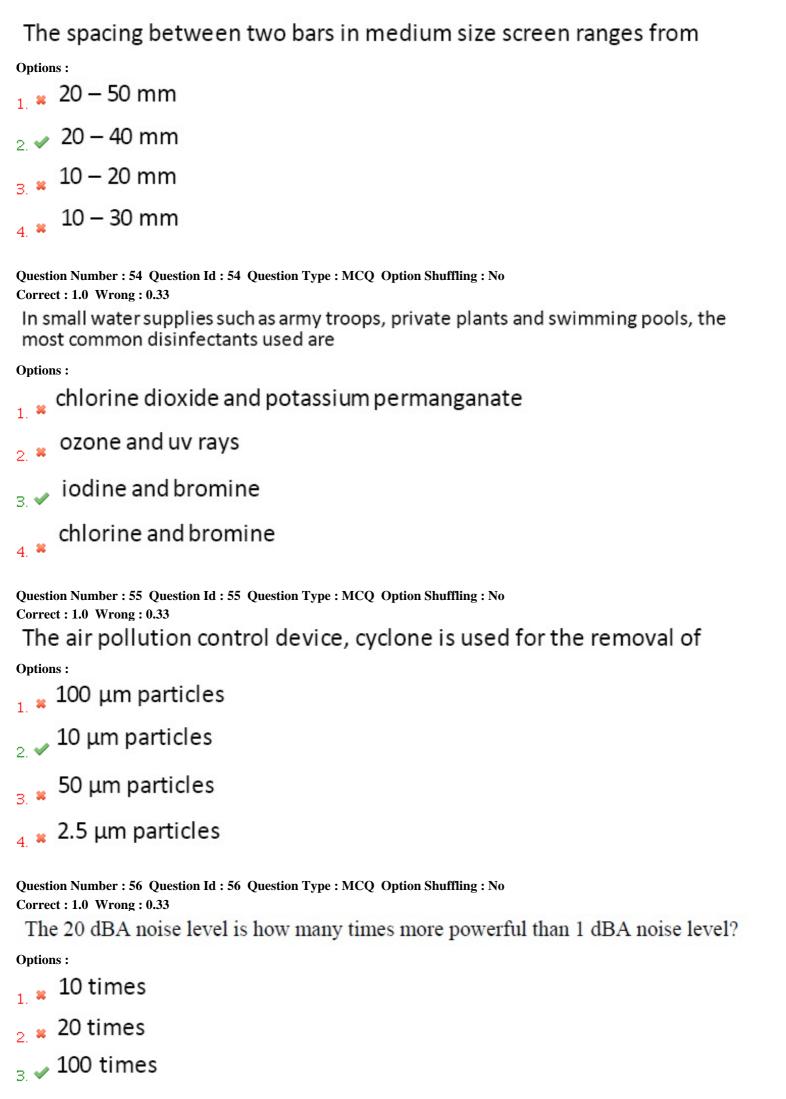
The prescribed per capita water demand for small cities and towns is

Options:

- 135 litres per capita per day
- 200 litres per capita per day
- 🍦 ڀ 150 litres per capita per day
- 180 litres per capita per day

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

Correct: 1.0 Wrong: 0.33



```
4 × 200 times
Question Number: 57 Question Id: 57 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The percentage contribution of CO2 to green house effect is
Options:
1. 🗸 50
    30
3 * 18
4 * 10
Question Number: 58 Question Id: 58 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
 Which of the following is not a valid category of impact printers?
Options:
Dot-matrix printers
  Line printers
🙎 🙀 Drum printers
₄ ✓ Ink-jet printers
Question Number: 59 Question Id: 59 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
 Which of the following is not true about RAM?
Options:
    Random access memory
    Read write memory
3. ☀ Volatile memory

    ✓ Sequential access memory

Question Number: 60 Question Id: 60 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Which of the following is not a component of Central Processing Unit (CPU)?
Options:
```

Arithmetic and Logic Unit (ALU)

```
2. Control Unit (CU)
3 Registers
Random Access Memory (RAM)
Question Number: 61 Question Id: 61 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
ASCII stands for
Options:
    American Standard Code for Immediate
1 * Interchange
    American Standard Code for Immediate
🤈 🙀 Information
    American Standard Code for Information
3. ✓ Interchange
    Australian Standard Code for Information
    Interchange
Question Number: 62 Question Id: 62 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The binary representation of 99.25 is _____
Options:
(1100011.10)2
<sub>2</sub> (1100011.01)<sub>2</sub>
(1101011.10)2
(1000011.11)<sub>2</sub>
Question Number: 63 Question Id: 63 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:
```

```
4. * X'
Question Number: 64 Question Id: 64 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The 2's compliment of the binary number (11001001), is
Options:
(00110110)2
(00111111)<sub>2</sub>
ຸ (00110111),
<sub>4</sub> * (10110111)<sub>2</sub>
Question Number: 65 Question Id: 65 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Which of the following is a real-time operating system?
Options:
1. Mac OS X
2 🗸 Linux
3. Windows 7
🗸 🧹 Windows CE
Question Number: 66 Question Id: 66 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
Class 'A' IP addresses use ______ bits for Network ID.
Options:
1 🗸 8
2 * 16
3 * 24
4 * 32
Question Number: 67 Question Id: 67 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
Which of the following is not a Web browser?
Options:
1 Chrome
Internet Explorer
```

```
3. W Opera
4. W Hadoop
Question Number: 68 Question Id: 68 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
An area of 64 square kilometre is represented by 256 square centimetre on a map. The R. F. of
the scale is
Options:
1 * 1/4
, 🗸 1/50000
3 * 1/2
<sub>4</sub> * 1/5000
Question Number: 69 Question Id: 69 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
An involute profile is used in
Options:
     pulleys
2 x cams
3 * chains
4 🌽 gears
Question Number: 70 Question Id: 70 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
If a line is parallel to H.P. and inclined to V.P., its front view will be
Options:
a line of smaller dimension
a line of larger dimension
     a line of same dimension
     a point
Question Number: 71 Question Id: 71 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
```

In multi-view projections, the xy line is known as

horizontal line 😦 vertical line traces 4 🗸 reference line Question Number: 72 Question Id: 72 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Isometric drawings fall into the category of **Options:** multi-view drawings 🍃 🙀 oblique drawings perspective drawings Question Number: 73 Question Id: 73 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** An object of weight 49 N is accelerated across a level surface at 0.20 m/s2. The net force acting on the object is ($g = 9.8 \text{ m/s}^2$) **Options:** 1 × 9.8 N 2 🗸 1.0 N 3 × 5.0 N 4. × 0.5 N. Question Number: 74 Question Id: 74 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The weight of an object on the surface of Earth is 60 N. On the surface of Moon, its weight will **Options:** 1. V 10 N 2 × 30 N 3 × 60 N 4 × 360 N.

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

Correct: 1.0 Wrong: 0.33

Shyam pushes a box 10 m on a horizontal surface by applying a 30 N force parallel to the surface. The work done is

Options:

1 × 3 J

2 × 30 J

3 🗸 300 J

4 × 0.3 J

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

Correct : 1.0 Wrong : 0.33

A sound wave passes a point of observation. At this point, the time interval between two successive crests is 0.02 s. Which of the following statements about the wave is correct?

Options :

The wavelength is 50 m

2 * The wavelength is 0.02 m

🗼 😦 The velocity of propagation is 50 m/s

4 ✓ The frequency is 50 Hz

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

Correct: 1.0 Wrong: 0.33

A ray is incident on a plane mirror. As the angle of incidence is increased, the angle between the incident and reflected rays ultimately approaches the value

Options:

1. **×** 90°

2. **v** 180°

_{3.} ¥ 45°

🗸 😦 zero

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

Correct: 1.0 Wrong: 0.33

Two resistors of 3 Ω and 6 Ω are connected in parallel. This combination in turn is connected in series with a 2 Ω resistor and a 6 V battery. The current in the 2 Ω resistor is

Options:

1 × 3.7 A

₂ × 5.4 A

з 🧳 1.5 A

4. **3**.0 A

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

Correct : 1.0 Wrong : 0.33

What is the value of X in the following equation?

 $MnO_2 + X HCI \longrightarrow MnCl_2 + 2 H_2O + Cl_2$

Options:

1. * 2

ຸ 🚆 3

з. 🗸 4

_{4.} * 5

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

Correct: 1.0 Wrong: 0.33

Which of the following element is lustrous in nature?

Options:

Carbon

🍃 🧹 lodine

💂 🙀 Sulphur

🗼 🙀 Nitrogen

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

Correct: 1.0 Wrong: 0.33

In Modern Periodic Table, the electronegativity of elements

Options:

Increases down the group

ncreases in moving from left to right in a period

💂 😦 Decreases in moving from left to right in a period

Does not follow any regular trend in a group or a period

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

Correct: 1.0 Wrong: 0.33

A trivalent metal "M" was made to react with nitrogen to yield 0.5 mole of metal nitride. Which of the following is a correct statement about the product of this reaction?

The reaction product contains

Options:

3.0165×10²³ molecules of oxide of formula MN

3.0165×10²³ molecules of oxide of formula M₃N
3.0165×10^{11.5} molecules of oxide of formula M₃N
4. 3.0165×10^{11.5}molecules of oxide of formula MN

 $Question\ Number: 83\ \ Question\ Id: 83\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct : 1.0 Wrong : 0.33

How many C-H bonds are there in a molecule of ethanoic acid?

Options:

- 1 * 6
- ຸ 👱 5
- ្ 🎍 4
- ₄ 🧹 3

 $Question\ Number: 84\ \ Question\ Id: 84\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct : 1.0 Wrong : 0.33

49 mL of 0.1 M sodium hydroxide solution is added to 50 mL of 0.1 M solution of nitric acid. Approximate pH of the resulting solution will be

Options:

- 1. **3**
- 2 **×** 7
- 3 * 8
- 4 * 13

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

Correct : 1.0 Wrong : 0.33

Substances enter cells through processes given below. For which process is energy required?

Options:

- 1 Diffusion
- Absorption of diffusible particles
- _ 💂 Osmosis
- Active transport

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

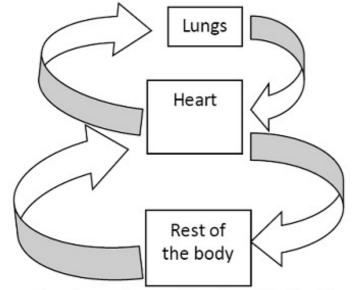
Correct: 1.0 Wrong: 0.33

Skin colour, eye colour, shape of nose and some other features are caused by

- 1. v genes
- environment
- genes and environment
- specific number of chromosomes

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

Correct : 1.0 Wrong : 0.33



The above diagram is a simplified outline of which physiological function of the body?

Options:

- Respiration and gaseous exchange
- Digestion of ingested food
- ຊ 🧪 Circulation of blood
- Removal of urine

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

Correct : 1.0 Wrong : 0.33

A plant remained in the dark for several days and died because it could not Options:

, 💂 breathe

🍃 🧪 photosynthesize

🙎 😦 remove waste

🚣 🔭 reproduce

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

Correct: 1.0 Wrong: 0.33

The brain is made of cells known as

Options:
neurons neurons
2. * nephrons
3. * cytons
4. v irions
Question Number: 90 Question Id: 90 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 What kind of reproduction is it when sperm and ovum fuse to form a zygote?
Options:
1. * Asexual
2. Sexual
Budding Budding
Binary fission
Question Number: 91 Question Id: 91 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The HCF of two numbers is 6 and their LCM is 72. If one number is 24, the other number is
Options: 12
2. √ 18
36 × 36
4. * 72
Question Number: 92 Question Id: 92 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The largest number which divides by 72 and 125, leaving remainders 7 and 8 respectively is
Options:
_{1. ✓} 13
2. * 56
3. * 65
_{4.} * 900
Question Number: 93 Question Id: 93 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

If a: b = 3:5 and b: c = 2:3, then a: c is

Options:

3:2

2. **2** 2:5

_{3.} **5**:2

_{4. *} 5:8

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

Correct: 1.0 Wrong: 0.33

Which of the following numbers are in proportion

Options:

12, 27, 54, 24

2 * 27, 12, 24, 54

₃ **12, 27, 24, 54**

₄ ***** 54, 24, 12, 27

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

Correct : 1.0 Wrong : 0.33

Successive discounts of 20% and 10% are equivalent to a single discount of

Options:

25%

26%

3. **28**%

₄ **×** 30%

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

Correct : 1.0 Wrong : 0.33

If ₹ 200 becomes ₹ 240 in 4 years, then the rate of simple interest per annum is

$$\frac{25}{2}$$
 %

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

Correct : 1.0 Wrong : 0.33

A sum of money doubles itself in 5 years when the interest is compounded annually. The number of years when it will become eight times is

Options:

1. * 10

2 * 12

з 🌙 15

4 20

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

Correct : 1.0 Wrong : 0.33

If CP of 10 articles is equal to SP of 8 articles, then in the whole transaction there is a **Options:**

Profit of 20%

2 x Loss of 20%

3. Loss of 25%

Profit of 25%

Question Number: 99 Question Id: 99 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 ₹360 as

Options:

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

Correct: 1.0 Wrong: 0.33

A shopkeeper mixes 26 kg of tea which costs him ₹ 800 per kg with 30 kg of tea which costs him ₹ 1440 per kg. He sells the mixed tea at ₹ 1200 per kg. His gain is **Options:**

```
2. * 8%
3. * 9%
4. * 10%
```

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

Correct : 1.0 Wrong : 0.33

In two vessels A and B, milk and water are in the ratio of 4:3 and 3:5 respectively.

The ratio in which these are to be mixed to obtain new mixture which contains half milk and half water is

Options:

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

Correct: 1.0 Wrong: 0.33

Speed of a boat in still water is 3 km/hr. the speed of the stream is 2 km/hr. The time taken to go 4 km downstream in minutes is

Options:

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

Correct : 1.0 Wrong : 0.33

A train 100 m long is moving at 68 km/h. The time in seconds, it will take to pass another train 150 m long which is moving at 50 km/h in the same direction from the moment they meet is

_{4.} ***** 70

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

Correct : 1.0 Wrong : 0.33

A and B can do a piece of work in 8 days. A alone can do the same work in 12 days.

The number of days in which B alone can do the same work is

Options:

- 1 20
- 2 🗸 24
- в. 🙀 40
- 4. 48

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

Correct: 1.0 Wrong: 0.33

P and Q can do a piece of work in 12 days, Q and R in 15 days and R and P in 20 days.

In how many days P alone can do the same work?

Options:

- 1. * 15
- 2 🗸 30
- 3 23.5
- 4 * 35

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

Correct : 1.0 Wrong : 0.33

The average of 5 numbers is 40. If one number is excluded then the average becomes 38. The excluded number is

Options:

- _{1.} ✓ 48
- 2 * 58
- _{3. **} 60
- _{4.} ***** 78

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

Correct: 1.0 Wrong: 0.33

The average of 35 observations is 30. Out of these observations the average of first 18 observations is 30 and the last 18 observations is 40. The 18th observation is Options:

180

2 * 190

3 200

_{4.} 🗸 210

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

Correct : 1.0 Wrong : 0.33

The 18th term of the A.P. whose first two terms are -3 and 4 respectively is

Options:

1. * 14

2 🗸 116

3 * 122

₄ ***** - 122

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

Correct: 1.0 Wrong: 0.33

The third term of a G.P. is 2. The product of its first five terms is

Options:

1. * 26

2. V 25

_ 24

4. × 2³

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

Correct : 1.0 Wrong : 0.33

A tower stands vertically on the ground. From a point on the ground which is 30 m away from the foot of the tower, the angle of elevation of the top of the tower is 60° . The height of the tower is

Options:

1. ✓ 30√3 · m

2. **×** 10√3 m

3 × 15 m

4. * 6 m

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

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

Correct: 1.0 Wrong: 0.33

From a point on the bridge across a river the angles of depression of the banks on the opposite side of the river are 30° and 45° respectively. If the bridge is at a height of 4m from the bank, the width of the river is

Options:

$$_{1}$$
 * $4(\sqrt{3}-1)$ m

$$_{2}$$
 × 2(2 $\sqrt{3}$ – 1) m

$$_{3} \sqrt{4(\sqrt{3}+1)}$$
 m

$$_{4} \approx 2(2\sqrt{3} + 1) \text{ m}$$

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

Correct : 1.0 Wrong : 0.33

If (x+1) is a factor of $x^4 - ax^3 + 2x^2 - 3x + 1$, then a is equal to

Options:

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

Correct : 1.0 Wrong : 0.33

One of the factor of $(25x^2 - 1) + (1 + 5x)^2$ is

Options:

$$_{2} = 5 + x$$

$$_{4} * 5x - 1$$

Question Number: 114 Question Id: 114 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

$$_{4} * -6 \le k \le 6$$

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

Correct : 1.0 Wrong : 0.33

The sum and product of the roots of the equation $x^2 - 4x + 3 = 0$ are respectively

Options:

 $Question\ Number: 116\ \ Question\ Id: 116\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct: 1.0 Wrong: 0.33

The first capital of British Colonial India was

Options:

- 1 * Delhi
- 2 🙀 Mumbai
- з 🤛 Kolkata
- 4 × Madras

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

Correct : 1.0 Wrong : 0.33

What was unexpected at the end of the battle of Waterloo?

- A. Duke of Wellington lost
- B. Napoleon Bonaparte won
- C. Duke of wellington won
- D. Napoleon Bonaparte lost

The correct response would be

3. B and C

4 🗸 C and D

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

Correct: 1.0 Wrong: 0.33

Who founded the Indian National congress?

Options:

1 Allan Octavian Hume

🚬 Womesh Chandra Banerji

👡 😦 Gopal Krishna Gokhale

Rash Behari Bose

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

Correct: 1.0 Wrong: 0.33

What are plate tectonics?

Options:

Movement of plates supporting the continents

🍃 😦 Volcanic eruptions

Term for erosion of land in the Himalayan region

Mountain formation due to collision of plates

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

Correct: 1.0 Wrong: 0.33

One region of India with high railway density is from Chhattisgarh to Jharkhand because of

Options:

1 * Industrialization

2 * Agricultural produce

3. Mineral deposits

Large population

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

Correct: 1.0 Wrong: 0.33

What Saraswati river is to the Triveni Sangam or confluence of rivers at Allahabad, is to confluence of rivers at Coorg. Mark the option which can fill the blank in the statement. **Options:** , 🗸 Shujyothi 2 🗶 Krishna 🚆 🙀 Godavari 4 🙀 Meghna Question Number: 122 Question Id: 122 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** What is meant by secularism? Having **Options:** an elected person as head of state a culture of equal treatment to all without discrimination a government of the people, by the people and for the people the freedom to preach, practice and profess any religion Question Number: 123 Question Id: 123 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The UN Public service award 2015 for eliminating open defecation has been given to **Options:** 🔒 🗶 Surat in Gujarat 🍃 😦 Gorakhpur in Uttar Pradesh 3 V Nadia in West Bengal 🗸 😦 Mahabaleshwar in Maharashtra Question Number: 124 Question Id: 124 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** A freedom not granted to citizens by the Indian Constitution is **Options:** to reside and settle in any part of India move freely throughout Indian territory assemble peacefully even with arms

■ form associations and Unions

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

Correct: 1.0 Wrong: 0.33

In PM Narendra Modi's recent visit to Korea, one important issue of discussion with their president was

Options:

- building a variety of skills in the youth
- building bridges across rivers 🙀
- 💂 🧝 developing international understanding
- 🗸 😦 exploring natural resources

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

Correct : 1.0 Wrong : 0.33

At the airport, a suitcase was offloaded from a trolley and lay there till someone came and pushed it away. Which one of Newton's Laws of motion explains this?

Ontions:

- Newton's first law of motion
- Newton's second law of motion
- 💂 🙀 Newton's third law of motion
- Partially the second and partially the third law

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

Correct : 1.0 Wrong : 0.33

Eclipse happens because light

Options:

- travels in waves
- 🤈 🧹 travels in straight lines
- 🍦 🙀 travels with great speed
- 4 🗶 rays are static

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

Correct : 1.0 Wrong : 0.33

A magnet attracts filings made of

Options:

1. Only Iron

- 🍃 🧹 Iron and Steel
- 💂 😦 Brass and Iron
- 🛕 🙀 Brass, Iron and Steel

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

Correct : 1.0 Wrong : 0.33

Bleaching powder is manufactured through a reaction between

Options:

- y Flaked lime and chlorine
- 🚬 💂 Quick lime and chlorine
- washing soda and ammonia
- 🔒 🙀 Baking soda and iodine

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

Correct: 1.0 Wrong: 0.33

What is likely to happen if the supply of coffee goes up?

Options:

- The demand for tea goes up
- The price of coffee goes down
- 3 * There is no change in the demand for tea
- Demand for tea escalates and price of coffee diminishes

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

Correct: 1.0 Wrong: 0.33

It is possible to make LPG available in a cylinder because of its Options:

- 1 * Inflammability
- 2 Dispersibility
- 3. ✓ Compressibility
- ₄ Diffusability

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

Correct : 1.0 Wrong : 0.33

If you uproot a cucumber plant, what kind of a change will it be?

- Physical only
- 2 * Chemical only
- Both physical and chemical change
- Neither physical nor chemical just organic

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

Correct : 1.0 Wrong : 0.33

What is PPP (Purchasing Power Parity)?

Options:

- 1 Wethod of measuring relative purchasing power of currencies of different countries
- Ability to purchase commodities by citizens of different states of a country
- A measure of socioeconomic development of a nation
- An index for purchasing power of citizens of neighbouring countries.

 $Question\ Number: 134\ \ Question\ Id: 134\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct: 1.0 Wrong: 0.33

Which nationalized bank presently has a Woman as its CEO?

Options:

- 1 * Indian Overseas Bank
- 🍃 🧹 State Bank of India
- 🔒 🙀 Punjab National Bank
- 🗸 😦 Central Bank on India

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

Correct: 1.0 Wrong: 0.33

RuBP enzyme is required for

Options:

- Photosynthesis
- 2 Chemosynthesis
- 3. * Both Photosynthesis and Chemosynthesis
- Excretion of urea

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

Correct: 1.0 Wrong: 0.33

One of the following is not a 'social insect'

- 1 * Ant
- 🤈 🧳 Beetle
- 3 x Termite
- Wasp

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

Correct : 1.0 Wrong : 0.33

Who coined the phrase 'Survival of the fittest' to mean Natural Selection?

Options:

- Charles Darwin
- Bertrand Russell
- 3 🗸 JBS Haldane
- 4 W Herbert Spencer

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

Correct : 1.0 Wrong : 0.33

The record of a country's transaction in goods and assets with the rest of the world is its

Options:

- 2 Capital amount
- Current amount
- 3 Jalance of payment
- Balance of trade

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

Correct: 1.0 Wrong: 0.33

The Champion's League Trophy is given for

Options:

- the best club in Soccer
- best player of team in Basket ball
- maximum goal maker in Hockey
- man of the match in Cricket

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

Correct: 1.0 Wrong: 0.33

Cricket batsman has to leave the field for "hit wicket" when

- Ball hits leg before bat
- Keeper removes the bail
- 🚆 🙀 Bat hits any fielder
- 4. Wicket is touched by bat or body of the batsman

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

Correct: 1.0 Wrong: 0.33

C is married to A, sister of D. B is the father of E, who is the son of

D. G is the sister of E. How is G related to C?

Options:

- nephew
- 2 v niece
- 🔒 🙀 sister-in-law
- sister

Question Number: 142 Question Id: 142 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.

14:49::18:?

Options:

- 1. * 56
- 2 * 59
- з 🧳 63
- 4. * 85

Question Number: 143 Question Id: 143 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.

East: North-West:: North: ?

Options:

West

- 2. South-East
 North-East
- South-West

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

Correct : 1.0 Wrong : 0.33

Among six objects, B weighs half as much as E. F weighs two and half times as much as C. A weighs half as much as D and twice as much as C. D weighs three times as much as E. Which is the correct sequence of weights in descending order?

Options:

- DFAECB
- 2. M DAFECB
- 3 BCEAFD
- DFACEB

Question Number: 145 Question Id: 145 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. Education 2. Salary 3. Child 4. Apply 5. Infant 6. Employment Options:
- 5, 3, 1, 4, 2, 6
- 5, 3, 1, 6, 2, 4
- 3, 5, 1, 4, 6, 2
- ₄ **5**, 3, 1, 4, 6, 2

Question Number: 146 Question Id: 146 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.

- 1. * 28
- 2. 🗸 16
- 3. * 32

_{4.} **3**6

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

Correct : 1.0 Wrong : 0.33

In a certain language, '792' means 'God is good'; '847' means 'rose is beautiful'; and '546' means 'children are beautiful'. Which digit means 'rose' in that language?

Options:

1. ✓ 8

_ _ 7

_{3. **} 2

₄ 🙀 9

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

Correct: 1.0 Wrong: 0.33

If 'DIRECTION' is coded as 'RIDTCENOI', then 'INTRODUCE' would be coded as:

Options:

1. * TNIDROEUC

2. V TNIDORECU

ECUDORTNI 💂

TNIDOREUC

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

Correct: 1.0 Wrong: 0.33

A clock is placed on the table in such a way that at 5.15 pm, the minute hand points to South. In which direction, the hour hand will point at 7.30 pm?

Options:

North-West

2 North-East

3 West

4. South-East

Question Number: 150 Question Id: 150 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? г

6	27	9
8	28	7
11	?	4

Options:

_{1.} ***** 33

29

₃. 🖋 22

_{4.} ***** 31

Railway Recruitment Board

Notations:

Options shown in green color and with vicon are correct.

2.Options shown in red color and with * icon are incorrect.

Question Paper Name: Junior Engineer 26th Aug Shift 2 Actual

Subject Name: Junior Engineer
Creation Date: 2015-08-18 12:49:17.0

Cut Off:0Duration:120Number of Questions:150Total Marks:150.0

Junior Engineer

Group Number:	1
Group Id:	2
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

Junior Engineer

Section Id: 2
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: 2
Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 151 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

A system and its environment put together constitute

Options:

An adiabatic system

2. An isolated system

```
3. A segregated system
  👱 A homogeneous system
Question Number: 2 Question Id: 152 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Slope of constant volume line on temperature entropy diagram is given by
Cp/T
<sub>2.</sub> * T/Cp
<sub>3.</sub> ≈ Cv/T
4. ▼ T/Cv
Question Number: 3 Question Id: 153 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
Stefen Boltzman law is applicable to
Options:
Gray body
2 * White body
з. 🥓 Black body
4 🙎 Blue body
Question Number: 4 Question Id: 154 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Heat is transferred by conduction, convection and radiation in
1 * Insulated pipes carrying hot water
    Refrigerator freezer coils
Melting of ice
🗸 🧹 Boiler furnaces
Question Number: 5 Question Id: 155 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
A four stroke diesel engine has
Options:
1 * One valve
```

- Two valves

 Three valves
- 4. Four valves

Question Number: 6 Question Id: 156 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A certain engine produces 10 kw indicated power. Its mechanical efficiency is 70%. Then the frictional power is

Options:

- 2 kw
- 2.5 kw
- 3 kw ₃ . ✓
- 4. × 3.5 kw

Question Number: 7 Question Id: 157 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Morse test is applicable only to

Options:

- Single cylinder SI engines
- 😞 🙀 Single cylinder CI engines
- Multi-cylinder CI engines
- Multi-cylinder SI and CI engines

Question Number: 8 Question Id: 158 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The consumable electrode is used in

Options:

- Carbon arc welding
- 2 Submerged arc welding
- 🚆 🔭 TIG welding
- MIG Welding

Question Number: 9 Question Id: 159 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The phenomenon of weld decay occurs in

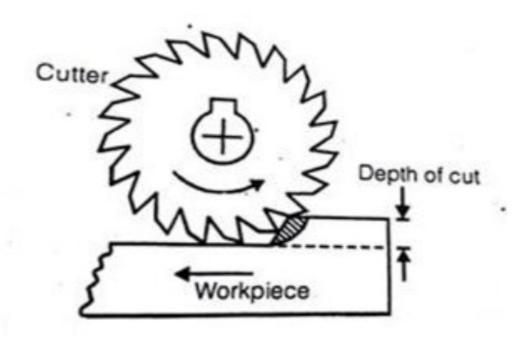
Options:

- 1 × Cast iron
- , 🙀 Brass
- 💂 💂 Bronze
- 4. V Stainless steel

Question Number: 10 Question Id: 160 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The given figure represents



Options:

- 1. Up milling
- Down milling
- 👡 🙀 Climb milling
- Angular milling

Question Number: 11 Question Id: 161 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

In sand moulding the bottom flask is called

- Cope 🔭
- ___ Drag
- 3. * Fillet
- 🗸 🙀 Riddle

Question Number: 12 Question Id: 162 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Cast iron pipes are cast by **Options:** Die casting process Centrifugal casting process Investment casting process Vaccum Moulding process Question Number: 13 Question Id: 163 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Swagging is an operation of **Options:** Hot rolling Forging 2 3 x Extrusion Piercing Question Number: 14 Question Id: 164 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In Die cutting operation, punching a number of holes in a sheet is called **Options:** Perforating Parting 3 Notching Lancing Question Number: 15 Question Id: 165 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The flow of current in solids is due to **Options:** 1 delectrons 👱 🙀 electrons and ions

```
atoms
    atoms and nucleus
Question Number: 16 Question Id: 166 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Ohm's law is applicable for
conductors only
     superconductors only
     conductors and semiconductors
     semiconductors only
Question Number: 17 Question Id: 167 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
"The algebraic sum of all the currents meeting at a point in a circuit is equal to zero." This
statement is
Options:
Kirchoff's Junction Rule
👱 🙀 Ampere Circuital Law
3 Kirchoff's loop Rule
4 🙎 Lenz Rule
Question Number: 18 Question Id: 168 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
In a DC generator, the critical resistance refers to the resistance of
Options:
1 * brushes
2 🗸 field
3 🗶 armature
4 🗶 load
Question Number: 19 Question Id: 169 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
```

current leakage

Options:

A transformer core is laminated in order to prevent

- eddy currents loss oilleakage 4 * hysterisis loss **Correct : 1.0 Wrong : 0.33**
- Question Number: 20 Question Id: 170 Question Type: MCQ Option Shuffling: No

HRC fuses on a transformer provide protection against

Options:

- insulation failure
- 🍃 😦 internal faults
- 3. 🗸 external faults
- low oil level

Question Number: 21 Question Id: 171 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Buchholz's relay is used in

Options:

- motor protection
- line protection
- generator protection
- transformer protection

Question Number: 22 Question Id: 172 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The stator frame in an induction motor is used

Options:

- to protect the whole machine
- 🤈 😦 to ventilate the armature
- as a return path for flux ₃. ✔
- to hold the armature stampings

Question Number: 23 Question Id: 173 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The starting winding of a single phase winding resides in

Options:
_{1.} * armature
_{2.} * field
_{3. *} rotor
_{4. ✓} stator
Question Number: 24 Question Id: 174 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Galvanising is a process of applying a layer of zinc on metal surface. It is also known as
Options:
electrorefining
_{2.} * anoding
_{3. ✔} electroplating
4. * cathoding
Question Number: 25 Question Id: 175 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 A single transistor can be used to build which of the following logic gates
Options:
1. * OR
2. * AND
3. * NOR
_{4.} ✓ NOT
Question Number: 26 Question Id: 176 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Which of the following expressions represents logical AND gate?
Options:
1. * A+B
_{2.} * A/B
3. * A>B
_{4.} ✓ A.B

Question Number: 27 Question Id: 177 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Substances which generate potential difference when exposed to light are known as

Options: photo voltaic material 2 | light generators thermoelectricgenerators volt generators Question Number: 28 Question Id: 178 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Most commonly used control element in voltage regulators is **Options:** 1. ✔ BJT 2 🙀 UJT ₃ ¥ FET 4 × SBS Question Number: 29 Question Id: 179 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In a differential amplifier, an ideal CMRR is **Options:** _{1.} ✓ infinity 2. zero _{3.} * +1 4. * -1 Question Number: 30 Question Id: 180 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** What is the equivalent of decimal 14 in binary? **Options:** ₁ 🗸 1110 2 * 1011 ₃ **×** 1101 4 * 1111

Question Number: 31 Question Id: 181 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

How many electrons are there in the valence shell of a pure semiconductor?

Options: _{1.} * 1 2 **x** 3 3. 🗸 4 Question Number: 32 Question Id: 182 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Exclusive-OR (XOR) logic gates can be constructed from what other logic gates? **Options:** OR gates only AND gates and NOT gates AND gates, OR gates, and NOT gates OR gates and NOT gates Question Number: 33 Question Id: 183 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The process of mixing AF signal and RF waves is known as **Options:** , w modulation 🙎 😦 demodulation 3 × oscillation 4 * amplification Question Number: 34 Question Id: 184 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The main advantage of frequency modulation over amplitude modulation is **Options:** * that there will be no distortion that the complete information is contained in the side bands that it uses a wider band of frequencies the elimination of noises

Question Number: 35 Question Id: 185 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

If the modulus of elasticity is zero, the material is said to be **Options:** 1 Rigid 2 × Elastic 3 * Flexible 4 🗸 Plastic Question Number: 36 Question Id: 186 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Water content of soil can be **Options:** Greater than 100 % 2 . Less than 0% 3 Only from 0% to 100% Never be greater than 100% Question Number: 37 Question Id: 187 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The maximum percentage of moment redistribution allowed in RCC beams is **Options:** 1 * 10% 20% з 🧳 30% 4 * 40% Question Number: 38 Question Id: 188 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Bending compressive and tensile stresses respectively are calculated based on **Options:** Net area and gross area 🤈 🧳 Gross area and net area 🔒 🙀 Net area in both cases Gross area in both cases

Question Number: 39 Question Id: 189 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The liquid used in manometers should have **Options:** Low density 2. High density Low surface tension " High surface tension Question Number: 40 Question Id: 190 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Which of the following instruments is generally used for base line measurements? **Options:** Chain 🔈 🗶 Metallictape Steel tape 🛂 🥒 Invar tape Question Number: 41 Question Id: 191 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** In a bar chart the vertical axis represents **Options:** 1 * Time Types of activities Number of labours Various activities of the project Question Number: 42 Question Id: 192 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Initial setting time is maximum for **Options:** Portland-Pozzolana cement 🤈 🙀 Portland-Slag cement 3 🗸 Low heat portland-pozzolana cement

High strength portland cement Question Number: 43 Question Id: 193 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The viscosity of a gas **Options:** 1 & Decreases with increase in temperature Increases with increase in temperature is independent of temperature * is independent of pressure for very high pressure intensities Question Number: 44 Question Id: 194 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** In an internal focussing type of telescope, the lens provided is **Options:** Concave Convex Plano-convex Plano-concave Question Number: 45 Question Id: 195 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Voids ratio of a soil mass can **Options:** Never be greater than unity Be zero Take any value greater than zero Take values between 0 and 1 only Question Number: 46 Question Id: 196 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The main ingredients of portland cement are **Options:** Lime and silica

2 🚜 Lime and alumina

- 3 x Silica and alumina
- 🗼 Lime and iron

Question Number: 47 Question Id: 197 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which of the following devices should be used for accurate measurement of low D.C. voltage?

Options:

- Small range moving coil voltmeter
- D.C. potentiometer
- Small range thermocouple voltmeter
- 4 * Hot wire voltmeter

Question Number: 48 Question Id: 198 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

A direct current can be measured by

Options:

- a D.C. potentiometer directly
- 2 a D.C. potentiometer in conjunction with a standard resistance
- 3 * a D.C. potentiometer in conjunction with a volt ratio box

a 💥

a D.C. potentiometer in conjunction with volt ratio box and standard resistance

Question Number: 49 Question Id: 199 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Basically a potentiometer is a device for

Options:

- comparing two voltages
- 🤈 🙀 measuring a current
- 🚬 😦 comparing two currents
- 🗸 🙀 measuring a voltage

Question Number: 50 Question Id: 200 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

In order to achieve high accuracy, the slide wire of a potentiometer should be

Options:

as long as possible

- 2. * as short as possible
- neither too small nor too large
- 4. very thick

Question Number: 51 Question Id: 201 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Standard resistor is made from

Options:

- 1. * platinum
- 2. manganese
- 3. x silver
- 4 * nichrome

Question Number: 52 Question Id: 202 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

In surface water, the colour produced by colloidal suspension is termed as

Options:

- apparent colour
- 🍃 🧹 true colour
- 🔒 🙀 light colour
- dark colour

Question Number: 53 Question Id: 203 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The stokes equation used for determination of settling velocity of discrete particle is

Options:

$$_{1}$$
 Vs = g (ρ_{s} – 1) d² / 18 μ

$$_{2}$$
 * Vs = g (ρ_{s} - 1) d² /18 v

$$_{\rm 3}$$
 * Vs = g ($\rho_{\rm s}$ - 1) d /18 v

Vs = g d
$$(ρ_s - 1)^2 / 18 μ$$

Question Number: 54 Question Id: 204 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The amount of oxygen required by microorganisms to decompose the biodegradable organics is called

- 1. * oxygen demand
- 2 a oxygen deficiency
- 3 🗸 biochemical oxygen demand
- 4 * chemical oxygen demand

Question Number: 55 Question Id: 205 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The formation of photochemical smog is caused by

Options:

- NOx, CO, HC, O₃
- NOx, CO₂, HC, O₃
- NOx, Pb, HC, O₃
- NOx, SOx, HC, O₃

Question Number: 56 Question Id: 206 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The threshold of sound pressure that a normal healthy person can respond to is

Options:

- 🗼 0.0002 Pa
- _{2. •} 0.00002 Pa
- 🚬 💂 0.002 Pa
- 4 × 0.02 Pa

Question Number: 57 Question Id: 207 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

In pre-industrial erathe concentration of carbon dioxide, CO2 was

Options:

- 200 ppm
- y 🙀 360 ppm
- 265 −290 ppm
- ₄ 🚜 300 ppm

Question Number: 58 Question Id: 208 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Options:
Daisy-wheel printers
2. * Line printers
3. * Drum printers
4. Laser printers
Question Number: 59 Question Id: 209 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Which of the following is not true about ROM?
Options:
Random access memory
Read only memory
3. Non-volatile memory
Sequential access memory
Question Number: 60 Question Id: 210 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Which of the following is a component of Central Processing Unit (CPU)?
Options: 1 * Hard Disk
2. * Keyboard
3. ✓ Registers
Random Access Memory (RAM)
Question Number: 61 Question Id: 211 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Original ASCII coding scheme uses bits for coding 128 different characters.
Options:
1. * 6
2. 7
3. * 8
_{4.} * 16
Question Number: 62 Question Id: 212 Question Type: MCQ Option Shuffling: No

```
Correct : 1.0 Wrong : 0.33
The binary representation of 129.25 is _____
<sub>1</sub> (1000001.01)<sub>2</sub>
2 * (11000001.01)2
(10000011.10),
    (10000001.11)_2
Question Number: 63 Question Id: 213 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
Considering X as a binary variable, the Boolean expression X + 0 is equivalent to
Options:
1. V
2. * 1
<sub>3</sub> * 0
₄ * X'
Question Number: 64 Question Id: 214 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
The 2's compliment of the binary number (10001100)<sub>2</sub> is
Options:
(01001000)2
(01110100)2
3 * (00100111)<sub>2</sub>
    (11110111)_2
Question Number: 65 Question Id: 215 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
Windows 7 is a
Options:
Real-time operating system
🤈 🙀 Multi-user operating system
Multi-tasking operating system
```

Distributed operating system Question Number: 66 Question Id: 216 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Class 'A' IP addresses use ______ bits for Host ID. **Options:** 1 * 8 ₂ **×** 16 з 🍫 24 ₄ **×** 32 Question Number: 67 Question Id: 217 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following is not a Web browser? **Options:** Opera 2. NetSurf 3. WWW 4 × Chrome Question Number: 68 Question Id: 218 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The R.F. of a scale is **Options:** 1 * < 1 _{2. *} = 1 _{3.} * >1 🛂 🥒 any of these Question Number: 69 Question Id: 219 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Which of the following methods is not used for drawing elliptical curves? **Options:** oblong method 🛫 🗸 tangent method

- 3. * concentric circles method
- intersecting arc method

Question Number: 70 Question Id: 220 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

If a line is parallel to V.P. and inclined to H.P., its top view will be

Options:

- a point
- 🦼 a line of larger dimension
- a line of smaller dimension
- 🗸 🙀 a line of same dimension

Question Number: 71 Question Id: 221 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

In first - angle projection method, the relative positions of the observer, object and plane are

Options:

- Plane is placed between observer and object
- observer is placed between object and plane
- Object is placed between observer and plane
- May be placed in any order

Question Number: 72 Question Id: 222 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

A square lamina is perpendicular to both the reference planes. Its top and front views will be

Options:

- 1 w the straight lines
- 2. * the squares
- a square and a straight line respectively
- a straight line and a square respectively

Question Number: 73 Question Id: 223 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

A 5 kg mass at rest on a frictionless table is acted upon by a constant force of 12 N. The distance travelled by it in 2s is

```
1.2 m
```

₂ × 2.4 m

з 🧳 4.8 m

4 * 9.6 m

Question Number: 74 Question Id: 224 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The gravitational force between two bodies kept at a distance d is proportional to

Options:

2 × d

4. **#** d²

Question Number: 75 Question Id: 225 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

An object of 10 kg is raised through a height of 2 m. The work done is ($g = 9.8 \text{ m/s}^2$)

Options:

, 🧳 196 J

2 × 98 J

3 × 19.6 J

4 × 4.9 J.

Question Number: 76 Question Id: 226 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which of the following statements about sound and light waves is correct?

Options:

Both sound and light waves are transverse

Both sound and light waves are longitudinal

Sound wave is transverse but light wave is longitudinal

4. Sound wave is longitudinal but light wave is transverse

Question Number: 77 Question Id: 227 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A beam of light is incident on a surface of a rectangular glass slab (μ =1.52). If the velocity of the beam before it enters the slab is 3 x 10 8 m/s, its velocity after emerging from the slab is

Options:

- 1.97 x 108 m/s
- 2 v 3 x 108 m/s
- 3 × 4.56 x 108 m/s
- 4 * 1.5 x 108 m/s

Question Number: 78 Question Id: 228 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Three resistors, each with resistance *r*, are in series in a circuit. They are replaced by one equivalent resistor of resistance *R*. Which of the following statements is correct?

Options:

- R is smaller than r
- The voltage across R equals the voltage across r
- The current through R equals the current through r
- The power dissipated in R equals the power dissipated in r

Question Number: 79 Question Id: 229 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

According to the law of constant proportions, what mass of oxygen would be present in a sample of carbon dioxide gas containing 3 grams of carbon?

Options:

- , * 3 g
- ္ 🙀 6 g
- 3 🧳 8 g
- 4 🙀 12 g

Question Number: 80 Question Id: 230 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Which of the following is a process of galvanization?

- Mixing of a metal with another metal by melting
- Coating the surface of a metal with Zinc
- Coating the surface of a metal with its oxide
- Painting a metal

Question Number: 81 Question Id: 231 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which element has the least number of valence electrons? **Options:** 1 * Chlorine 🍃 🌽 Sodium 🚆 🙀 Fluorine 4 Oxygen Question Number: 82 Question Id: 232 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** For the reaction, 2 Na + H₂ ----> 2NaH, which of the following statements are correct? i) Na is oxidized ii) H_{2 is} oxidized H₂ acts as an oxidizing agent (iv) Na acts as an oxidizing agent (iii) **Options:** 1 🥒 (i & iii) 2. 💥 (i & ii) 🚆 🙀 (ii & iii) 4. * (ii & iv) Question Number: 83 Question Id: 233 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following compounds would react with sodium hydrogen carbonate to produce carbon dioxide gas? **Options:** L CH₃ CH₂OH CH₃CH₃ CH₂= CH₂ ₄ ✓ CH₃COOH Question Number: 84 Question Id: 234 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In which of the following reactions does NH₃ act both as an acid and a base? **Options:** 1 NH₃ + H₂O ----> NH₄⁺ + OH⁻ 2. ✓ 2NH₃ ----> NH₂- + NH₄+

```
NH<sub>3</sub> +HCl ----> NH<sub>4</sub>+ + Cl
     NH<sub>3</sub> + NaOH ----> NaNH<sub>2</sub> + H<sub>2</sub>O
Question Number: 85 Question Id: 235 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The plant organelles which can trap sunlight are
Options:
Chlorophyllonly
Chloroplasts only
3. Mitochondria only
    Mitochondria and Chloroplasts
Question Number: 86 Question Id: 236 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Which of the following diseases is not spread by mosquitoes?
Options:
Malaria
    Dengue
🚽 🙀 Filaria
Tuberculosis
Question Number: 87 Question Id: 237 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
The flowering plants belong to the group
Options:
Angiosperms
     Gymnosperms
3 Bryophytes
    Pteridophytes
```

Question Number: 88 Question Id: 238 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

Fish has a streamlined body to

balance the body while swimming counter the resistance of water 3 gain speed as they move forward avoid collision with other fish Question Number: 89 Question Id: 239 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Landslides and soil erosion are occurring more frequently than before because **Options:** Climate has changed Forests have been cut Rainfall has become scarce Drought has dried the soil Question Number: 90 Question Id: 240 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Air enters the lungs due to movement of **Options:** Rib muscles only Diaphragm only Trachea and bronchi Rib muscles and diaphragm Question Number: 91 Question Id: 241 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The HCF of two numbers is 12 and their LCM is 72. If one number is 36, the other number is **Options:** 1 * 12 2 🗸 24

Question Number: 92 Question Id: 242 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

3 * 36

₄ **¥** 48

The largest number which divides 81 and 108, leaving remainders 6 and 3 respectively i
Options:
_{1.} * 9
_{2.} 15
3. * 18
4. x 515
Question Number: 93 Question Id: 243 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
If a: b = 4:5 and b: c = 2:3, then c: a is
Options:
_{1. • 15:8}
2 * 3:4
3. x 8:15
4. * 3:5
Question Number: 94 Question Id: 244 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
If 3, 5, x, 25 are in proportion, then x is equal to
Options:
1. * 5
_{2.} * 10
3. 15
_{4.} * 75
Question Number: 95 Question Id: 245 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33 Successive discounts of 30% and 10% are equivalent to a single discount of
Options :
1. * 20 %
2. * 35%
3. * 36 %
_{4.} → 37%
Question Number: 96 Question Id: 246 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

The simple interest on rupees 200 for 3 years at 6% per annum in rupees is **Options:** 36 2. * 18 ₃ * 24 4. * 48 Question Number: 97 Question Id: 247 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A sum of money doubles itself in 4 years when the interest is compounded annually. The number of years when it will become eight times is **Options:** 1. * 32 2 * 16 3. 🗸 12 _{4.} * 8 Question Number: 98 Question Id: 248 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** If C.P. of 12 articles is equal to S.P. of 10 articles, then in the whole transaction there is a profit of **Options:** 3 25% ₄ 🗸 20% Question Number: 99 Question Id: 249 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** To gain 25% after allowing a discount of 20%, the shopkeeper should mark the price of the article which cost him ₹ 400 as **Options:** _{1.} ***** ₹525

₹ 580

Question Number: 100 Question Id: 250 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A shopkeeper mixes 40 kg of sugar which costs him ₹ 36 per kg with 27 kg of sugar which costs him ₹ 30 per kg. He sells the mixture at ₹ 35 per kg. His gain percent is Options:

Question Number: 101 Question Id: 251 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

In two vessels A and B, the milk and water are in the ratio of 5:2 and 4:5 respectively.

The ratio in which these are mixed to obtain new mixture which contains milk

and water in the ratio 3:2 is

Options:

Question Number: 102 Question Id: 252 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Speed of a boat in still water is 3 km/hr. the speed of the stream is 1 km/hr. The time taken to go 4 km upstream in minutes is

Question Number: 103 Question Id: 253 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A train 100 m long is moving at 40 km/h. The time in seconds, it will take to pass another train 150 m long which is moving at 50 km/h in the opposite direction from the moment they meet is

Options:

- 1. * 6
- 2 * 8
- в. 🗸 10
- ₄ ***** 15

Question Number: 104 Question Id: 254 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A and B can do a piece of work in 24 days. If efficiency of A is double than B, then in how many days, A alone can do the same work?

Options:

- 1. * 30
- 2. 🗸 36
- 3 * 60
- 4 * 72

Question Number: 105 Question Id: 255 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

P and Q can do a piece of work in 12 days, Q and R in 15 days and R and P in 20 days.

In how many days Q alone can do the same work?

Options:

- 1. 20
- 2 * 30
- 3. * 47
- 4. * 60

Question Number: 106 Question Id: 256 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The average of first five prime numbers is

Question Number: 107 Question Id: 257 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The average weight of 100 students is 46 kg. The average weight of boys is 50 kg. If the number of boys is 60, the average weight of girls in kilograms is

Options:

Question Number: 108 Question Id: 258 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which term of AP; 7, 14, 21, 28,... is 77?

Options:

Question Number: 109 Question Id: 259 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The third term of a G.P. is - 3. The product of its first five terms is

Options:

Question Number: 110 Question Id: 260 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

A ladder 15 m long just reaches the top of a vertical wall. If the ladder makes an angle of 60° with the wall, the height of the wall is

Options:

$$\frac{15\sqrt{3}}{2}$$
 m

 $Question\ Number: 111\ \ Question\ Id: 261\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct: 1.0 Wrong: 0.33

From a point on the bridge across a river the angles of depression of the banks on the opposite side of the river are 30° and 45° respectively. If the bridge is at a height of 3m from the bank, the width of the river is

Options:

$$_{1.}$$
 $\approx 2(\sqrt{3}+1) m$

$$_{2.}$$
 $\sqrt{3}+1)$ m

$$_{3.}$$
 4($\sqrt{3}+1$) m

$$_{4} \times 2(2\sqrt{3}+1)$$
 m

Question Number: 112 Question Id: 262 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

If (x-2) is a factor of $ax^3 + 3x^2 + 4x + 4$, then a is equal to

Options:

Question Number: 113 Question Id: 263 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

One of the factors of $(36x^2 - 1) + (1 + 6x)^2$ is

Options:

$$_{1.} * 6 + x$$

Question Number: 114 Question Id: 264 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

All values of k for which $x^2 + kx + 16 = 0$ has real roots is

Options:

Question Number: 115 Question Id: 265 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The sum and product of the roots of the equation $x^2 - 4x + 5 = 0$ are respectively

Options:

Question Number: 116 Question Id: 266 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Who discovered the sea route to India?

Options:

- y Vasco da Gama
- 🍃 😦 Magellan
- 3 🙀 Diaz
- Christopher Columbus

Question Number: 117 Question Id: 267 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

In the medieval times, Bedouins were

Options:

- 1. Early Romans
- 2 K Greek Emperors
- y Wandering Arab camel herdsmen
- Tribal horse riders

Question Number: 118 Question Id: 268 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The major cause of top soil being lost due to soil erosion is

Options:

- , 💂 Westerly winds
- 🚬 Thermal inversion
- 3 Deforestation
- Cattle grazing

Question Number: 119 Question Id: 269 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The term used for armed rebellion against a constituted authority is

Options:

- Insurgency
- Terrorism
- 3. Naxalism
- 4 Coup

Question Number: 120 Question Id: 270 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The treaty of Versailles was signed in the summer of 1919 with

Options:

Germany

2 * Austria

3. Turkey

Hungary

 $Question\ Number: 121\ \ Question\ Id: 271\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct : 1.0 Wrong : 0.33

About 30% of the 'Great wall of China' has recently been found to have disappeared due to Just Natural causes Global Warming Natural disasters Natural causes and theft of bricks for building houses Question Number: 122 Question Id: 272 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Is Virus a living being? **Options:** Yes, because it has DNA No, because it does not possess the machinery to duplicate itself Yes, because it can divide to reproduce when inside a living being No, because its coat is made of Protein Question Number: 123 Question Id: 273 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33**

What does a plant do with the sugar it makes?

Options:

- Uses it up completely to get energy for its survival
- Stores it in its roots
- Converts it into starch
- Stores it for herbivores to feed upon

Question Number: 124 Question Id: 274 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which out of the following is in all cases a hereditary disorder

Options:

- 1 V Thallasemia
- Diabetes mellitus
- Tuberculosis
- Anaemia

Question Number: 125 Question Id: 275 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The latest Nobel Peace Prize was awarded to two people, a man and a woman. To which countries do they belong?

Options:

1 China

India and Pakistan

🚬 US and Greece

🗸 😦 India and Indonesia

Question Number: 126 Question Id: 276 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Who is Dalai Lama and where does he live?

Options:

Tibetan Spiritual leader living in Dharamshala, Himachal Pradesh

🚬 🙀 Buddhist monk living in Tibet

🛪 🗶 Tibetan rebel fighting the Chinese

Religious leader from Tibet living in Kushalnagar, Coorg

Question Number: 127 Question Id: 277 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

In the geography class students were confused regarding the difference between climate and weather. Four of the students gave four answers. Which one is the correct difference?

Options:

Climate is the sum total of variation in weather in an area whereas

weather is the state of atmosphere over an area.

👱 🔭 Climate and weather are synonymous

Climate is the sum total of weather conditions over a large area for a long period of time and weather is the state of atmosphere over an area at any point of time.

4. 🗱

Climate is the duration of seasons in a large area and weather refers to seasonal changes in a small area.

Question Number: 128 Question Id: 278 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The tournament that takes place in Roland Garros in Paris is associated with Options: Lawn tennis
Table tennis
3. x Basket ball
Bowling
Question Number: 129 Question Id: 279 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Which is the national sport of India?
Options : Cricket
Football
_{3. ✔} Hockey
Kabaddi
Question Number: 130 Question Id: 280 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Where would you place vinegarifyou were to show its pH on a scale showing pH from 1 to 8 to?
Options: Left of 7
Right of 7
3. x On 7
1. * On 8
Question Number: 131 Question Id: 281 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
A gel is a
Options:
Suspension of a solid in a liquid
Suspension of tiny liquid droplets in another liquid
Gas trapped in a viscous liquid
Gas tranned in a semi-solid

Question Number: 132 Question Id: 282 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

Which out of the following is incorrect regarding Lok Sabha?

Options:

530 members are elected from states

20 members are elected from Union Territories

3. 🗸

2 members from Anglo Indian community are elected by the community

4. 🕷

2 members of Anglo Indian community are nominated by the President if there is no member from the Anglo Indian community

Question Number: 133 Question Id: 283 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Some salts we use in the kitchen for cooking are given below but one is erroneously mentioned. Identify it

Options:

🚬 Sodium chloride

🚬 💂 Sodium bi carbonate

🋫 🗸 Calcium Phosphate

Monosodium glutamate

Question Number: 134 Question Id: 284 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

When mother was heating the oven to a certain temperature for baking a cake, the daughter wanted to know the difference between heat and temperature. In mother's response which one statement was incorrect?

Options:

1 %

Heat is a form of energy and temperature measures how hot something is

- 🔑 😦 Heat is measured in Joules and temperature in degree Celsius (°C)
- Reat and temperature both flow between temperatures
- When heat energy flows, temperature increases or decreases

Question Number: 135 Question Id: 285 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Read the poem written by a child.

Plants will always grow
Wind will always blow
Solar cells will give electrical energy
Waves forever will make energy

About what did a child write in the above poem?

Options:

- Renewable energy resources
- Non renewable energy resources
- 💂 😦 Energy resources of all kinds
- Principle of conservation of energy

Question Number: 136 Question Id: 286 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

The colour of an object is the colour it reflects. So a red boot______Identify the wrong statement among the ones written below.

Options:

- looks red in white light as it reflects red and absorbs all other colours
- red in red light as it reflects red light falling on it
- 👡 😦 looks black in green light which it absorbs
- red in green light when there is no red light

Question Number: 137 Question Id: 287 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which of the following statements regarding international trade is true?

Options:

- Higher exchange rate makes country's exports cheaper
- Higher exchange rate makes country's imports cheaper
- 고 💥

Lower exchange rate makes country's imports cheaper in domestic markets

Lower exchange rate makes country's exports cheaper

Question Number: 138 Question Id: 288 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The main cause of balance of payments (BoP) deficit in developed free market economies is

Options:

- Less demand for country's exports
- Less demand for country's imports
- Rising demand for country's exports
- Recurring Political instability in the country

Question Number: 139 Question Id: 289 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Which democratic country has an unwritten constitution?

Options:

- United States
- 2. 🗸 England
- 3 🔭 India
- Canada and America

Question Number: 140 Question Id: 290 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

If the Gross Domestic Product (GDP) of a country is higher than Gross National Product (GNP), then

Options:

The total production by national and foreign individuals within the geographical boundaries of a country is lower than produced by its citizens on its land or foreign soil

Net payment outflow to foreign assets is greater than net income inflow from assets abroad

The strength of the country's basal economy is less than economic strength of the nationals of the country

Net payments outflow is lower than incoming inflow

Question Number: 141 Question Id: 291 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Sabnam introduced Vipul as the son of the only daughter of the father of her uncle. Vipul is Sabnam's

Options:

, 👅 son

2 uncle

3. **✓** brother

4. * nephew

Question Number: 142 Question Id: 292 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.

6:42::9:?

Options:

1. 🗸 90

2 * 87

3 * 73

4. * 65

Question Number: 143 Question Id: 293 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.

Water: Filter:: Movie: ?

Options:

, Actor

🔒 🙀 Theater

Director

4 V Censor

Question Number: 144 Question Id: 294 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Seven cars P, Q, R, S, T, U and V are kept in an exhibition. Q is to the immediate right of U. U is fourth to the right of V. P is between R and S. V which is third to the left of S is at one of the ends.

Which is correct position of the car T?

Options:

- it is in the middle
- 🗝 🔭 it is fourth to the left of S
- 3 v it is at one of the ends
- it is next to V

Question Number: 145 Question Id: 295 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. District 2. Nation 3. Married couple 4. State 5. Village 6. Family Options:
- 6, 3, 5, 1, 4, 2
- ₂ **3**, 6, 5, 1, 4, 2
- 3, 6, 5, 1, 2, 4
- 4 * 6, 3, 5, 4, 1, 2

Question Number: 146 Question Id: 296 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.

(13 [22] 31) (15 [33] 51) (17 [?] 69)

Options:

- 1 * 55
- , 🙀 38
- 3. * 44
- 4. 🗸 43

Question Number: 147 Question Id: 297 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

In a certain language, '273' means 'leaves are green'; '5426' means 'green is a color'; and '9524' means 'color is bright green'. Which digit means 'bright' in that language?

Options:

1. * 4

o **x** 2

S 🧳 9

, 🗝 5

Question Number: 148 Question Id: 298 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

If 'BACKWARD' is coded as 'DBARACKW', then 'HANDLING' would be coded as:

Options:

1

✓ GHANINDL

2 # GHANNILD

3 K GHANINLD

4 # GHNANILD

Question Number: 149 Question Id: 299 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Starting from his house, Mohan walks 10 km to the South; turns left and walks 12 km. He turns right and walks 5 km. Finally he turns right and walks 20 km. How far is he from the starting point?

Options:

15 km

2 🗸 17 km

3. **×** 23 km

4 × 27 km

Question Number: 150 Question Id: 300 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?

5	4	7
14	25	9
12	?	5

Options:

_{1. •} 49

- 2. * 35
- _{3.} ***** 22
- _{4.} ***** 16

Railway Recruitment Board

Notations:

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

Question Paper Name: Junior Engineer 26th Aug Shift 3 Actual

Subject Name: Junior Engineer

2015-08-18 12:48:18.0 **Creation Date:**

Cut Off: 0 **Duration:** 120 **Number of Questions:** 150 **Total Marks:** 150.0

	Junior Engineer
Group Number:	1
Group Id:	3
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

Junior Engineer Section Id:

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 3 Sub-Section Id: 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:

1. Pressure

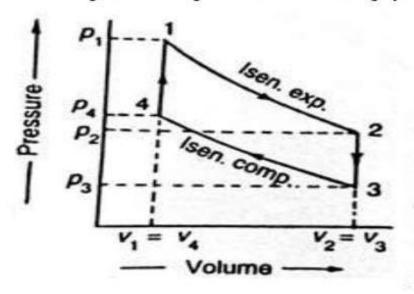
2. V Temperature

3 * Heat exchange 4 × Work Question Number: 2 Question Id: 302 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Internal energy is defined by **Options:** Zeroth law of thermodynamics 2. First law of thermodynamics 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 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:** 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 4. Absorbed

Question Number: 6 Question Id: 306 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The given P-V diagram indicates following cycle



Options:

Carnot cycle

2. V Otto cycle

3 🗶 Diesel cycle

Dual cycle

Question Number: 7 Question Id: 307 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

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

Options:

1. Increases

Decreases

3. Remains constant

May increase or decrease

Question Number: 8 Question Id: 308 Question Type: MCQ Option Shuffling: No

Correct : 1.0 Wrong : 0.33

Size of shaper is specified by

Options:

1 Size of table

2. 🗸 Length of stroke

Power of motor

Ratio of forward to return stroke

Correct: 1.0 Wrong: 0.33 Which of the following is an example of orthogonal cutting? **Options:** 1 Shaping 2 V 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:** Gas welding Resistance welding Are welding 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 v 7.5 π m/sec 2 × 15 π m/sec 3 × 45 π m/sec 4 × 450 π 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 Not provided

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

Correct : 1.0 Wrong : 0.33

The grinding operation is a **Options:** Shaping operation Forming operation Surface finishing operation 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. Sliting Question Number: 15 Question Id: 315 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Steel rails are welded by **Options:** Gas welding 2. Thermit welding Resistance welding Argon are 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:** Electromagnetic Induction Ohm's Law Lenz's Law Kirchoff's Law

Question Number: 17 Question Id: 317 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

Thermal relays are used in
Options: motor starters
switchgear protection
3. * transformer protection
generators 4. **
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
oil 2. **
oxygen
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
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. ✓ Hysterisis
4 Wniversal

 $\label{eq:Question Number: 21 Question Id: 321 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33$

Which of the following is not fitted on transformer?

Options:

- 1. Commutator
- 2. Sreather
 - Conservator
- 3. 3
- 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:

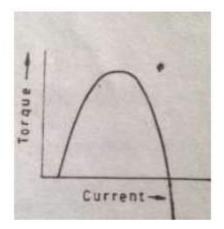
- hysteresis losses
- 2 copper losses
- 3.

 ✓ 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:

- Cumulative Compound motor
- Shunt motor
- Series motor
- 4. Differential Compound motor

Question Number: 24 Question Id: 324 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which of the following is not a non-linear element?

Options:

1. * Gas diode 2. Heater coil 3. 🗱 Tunnel diode 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 Copper oxide rectifier 3 🚜 Gas tube diode 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:** 1.41 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 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:

1. * holes 2. 🖋 electrons 3. adopants 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. a carbon 2. Soron 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 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 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:**

1. * B
2. • A
3. * 1
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
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:
Dyne-cm/s ²
2. Dyne-cm/s
3. * Dyne-s/cm
Dyne-s/cm ²
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:

1. 🖋 3 3. * 1 Question Number: 37 Question Id: 337 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Bolts are most suitable to carry 1 & Shear 2 8 Bending 3. Axial tension 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 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:** 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:** 1 * Normal distribution

2. W Beta distribution 3. Binomial distribution 4. * Poisson distribution 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 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 Adopted for large surveys only

∃

Most accurate method 4 Suitable for hilly terrains 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. V 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:** Soften the timber Harden the timber 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 RMMC 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. w moving iron instrument

4 * electrodynamic instrument

Question Number: 49 Question Id: 349 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

In an energy meter, braking torque is produced to

Options:

1 * safe guard it against creep

> s brake the instrument

z 😹 bring energy meter to stand still

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

o 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:

average amount of daily water required by one person

monthly average amount of daily water required by one person

annual average amount of daily water required by one person

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

The permissible/desirable drinking water standard for total hardness is 200 mg/l 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 8 260 mg/l 3. v cannot be determined 4 8 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:** damage of alveoli 2 🙎 kidney damage 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 8 2000 to 5000 Hz

3 🛷 20 to 20,000 Hz

```
4 × 20 to 2000 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
CH4, CO2, N2O and CFC
3. N2O, CH4, CO2 and CFC
     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 VOutput device
3. Storage device
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
     Erasable programmable read only memory
     Non-volatile memory
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:
Arithmetic and Logic Unit (ALU)
2. Control Unit (CU)
3. Registers
```

```
4. * Random Access Memory (RAM)
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. 3 (11000011.01)<sub>2</sub>
4 V (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. V 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)<sub>2</sub> is
Options:
1. * (11111111)2
2 (00000000)2
3. 3 (10101010)<sub>2</sub>
4 * (01010101)2
```

Question Number: 65 Question Id: 365 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
A proprietary technology developed by Microsoft that allows embedding and linking to
documents and other objects is
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 16
2. 2 4 3. 3 2
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: Netscape Navigator
2. * NetSurf
_{∃.} ✓ 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: 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

If a line is parallel to H.P. and inclined to V.P., its true length will be seen in

Options:

1. Front view

Top view

3. Side view

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:

perpendicular to both horizontal and vertical planes

parallel to horizontal plane and perpendicular to vertical plane

3 * perpendicular to horizontal plane and parallel to vertical plane

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

Third-angle projection

First- angle projection

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:

V.T. will be perpendicular to the reference line

H.T. will be parallel to the reference line

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

A truck of mass 1000 kg moving at a speed of 20 m/s is braked suddenly with a braking force of 5000 N. The distance travelled by the truck before stopping is

Options:

1. * 20 m

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/m²

2

√ 1.96 x 10³ N/m²

3 × 1.96 N/m²

4 * 0.98 x 10³ N/m²

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:

the distance between two consecutive crests

the distance between two consecutive troughs

the height difference between a crest and a trough

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

An object and a screen are separated by 25 cm. When a convex lens is placed between them at a distance of 5 cm from the object, a sharp image is formed on the screen. The focal length of the lens is

Options:

20 cm

_{2.} 6.67 cm

3. **√** 4.0 cm

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:

Methane

__ Ethane

Propane

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:

 $_{1.}$ \checkmark Cl_2

2. **8** H₂S

3. NaCl

4. S CO2

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:

Decomposition

Neutralization

Reduction

4.

✓ Oxidation

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

Correct : 1.0 Wrong : 0.33

An element $\underline{\mathbf{X}}$ contains only one electron in its outermost shell. Which of the following statements are correct about $\underline{\mathbf{X}}$?

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:

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:

Phenolphthalein

1. 3

```
Methyl orange
Vanilla essence
    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
     Al
     Li
     В
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:
    one word
two words
    four words
    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:
     striated and involuntary
involuntary and without fatigue
    voluntary and do not stop contracting
```

voluntary and fibres are connected

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:

- Scarcity of water
- Lack of rainfall
- 💂 Hot daytime
- 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:

- Liver
- Pancreas .
- stomach
- 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:

- Carbon Dioxide
- 2. Nitrogen
- Sulphur Dioxide
- Nitrous Oxide

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

Correct: 1.0 Wrong: 0.33

In which one of the following is DNA present?
Options:
₁.
Ribosomes
Vacuoles Vacuoles
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:
18
2. 90
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
30
_{3. **} 45
56

Correct: 1.0 Wrong: 0.33 If a:b=5:6 and b:c=3:4, then c:a is

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

```
1. * 4:5
2. * 5:4
```

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

Correct : 1.0 Wrong : 0.33

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

Options:

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:

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 $\frac{5}{2}$ years at 5% per annum is

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:

2.4

3. 3

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:

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

4.

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:

2 %

3. 🕷

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:

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

45 2. ***** 50 3. *****

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
- 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:

- , , 5
- , 6
- ₂ 7
- . 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

```
2. * 40
```

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:

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:

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

Correct: 1.0 Wrong: 0.33

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

2 %

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, ..., is

Options:

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:

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

$$2(\sqrt{3}+1)$$
 m

$$3(\sqrt{3} + 1) \text{ m}$$
3 - $\sqrt{3} \text{ m}$

$$3-\sqrt{3}$$
 m

$$_{4} \sqrt{3} + \sqrt{3} m$$

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:

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:

$$9+x$$

$$9-x$$

$$9x - 1$$

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

$$-6 \le k \le 6$$

$$6 \le k \le -6$$

$$k \ge 6$$

$$k \leq -6$$

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:

$$-8, 4$$

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:

- Green card once
- Yellow card once
- Green card twice
- 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

When you touch a hot plate and immediately withdraw your hand, the action in triggered by your

Options:

Brain

Spinal Cord

Upper arm muscles

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:

Water

Carbon-di-oxide

Oxygen

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:

Spider Spider

Butterfly

Beetle

Termite

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

Correct: 1.0 Wrong: 0.33

You can make soap at home from vegetable oil and

Options:

Caustic Potash

Ammonium Hydroxide

Caustic Soda

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:

$$_{1} * 6CO_2 + H_2O \rightarrow C_6H_{12}O_6 + O_2$$

$$_{\bullet}$$
 6CO₂ + 6H₂O \rightarrow C₆H₁₂O₆ + 6O₂

$$CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + O_2$$

$$CO_2 + H_2O \rightarrow C_6H_{12}O_6 + O_2$$

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:

F and Br

F and Ca

Br and Mg

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?

- _{1.} ✓ 20 2 * 15 3 **x** 10 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:** Friction Gravitation Rotation 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:** Fulcrum (fixed point) is between load and effort Load is between Fulcrum and effort Effort is between fulcrum and load 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:** Frictional electricity
- Current electricity
 Flow of electric field

Flow of potential

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
- Lebanon
- 3. * Brazil
- 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:

- President, Pranab Mukherji
- Vice President, Hamid Ansari
- Prime Minister, Narendra Modi
- 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:

- , Manila
- Myanmar 🔪
- 3. * Malaysia
- Morocco

Question Number: 131 Question Id: 431 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

One long river of our country which flows through the North-East is

Options:

Ganges Brahmaputra 🛚 🙀 Narmada 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:** Calligraphy Numismatics ₃ ✓ Cartography 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:** Accumulation of Carbon dioxide in the atmosphere Ozone hole Photo chemical smog 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:** Same day 26.01.1950 15.08.1950

26.01.1952

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:

- Right to Education
- Right to Freedom of Speech
- Right against exploitation
- 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:

- Quantity times Price = Revenue
- Revenue times Price = Quantity
- Quantity times Revenue = Price
- 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:

Spanish civil war

Sudanese civil war

Second world war

American war of independence

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

Correct: 1.0 Wrong: 0.33

Three national leaders were together called Lal Bal Pal. Which name in the options is wrong?

Options: Bal Gangadhar Tilak Bipin Chandra Pal Lala Lajpat Rai 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:** Lord Clive Sir Warren Hastings Lord Mountbatten 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:** Amartya Sen is the only economist from India/of Indian origin to have won the Nobel Prize for Economics Amartya Sen is also credited with developing the input output method with C.V. 2 / Raman Amartya Sen received the Nobel Prize in 1998 for his contribution to welfare economics 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:

cousin

uncle brother-in-law 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 **12**5 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:** Bacteria Reflect Examine 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:

1. * A

		-
0	M	(

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:

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.

Options:

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?

₄ * 7

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:

FSMWLG

FSMWKG

ESMWKG

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:

South-West

2 South-East

North-East

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

₃ 💉 56