### **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 27th Aug Shift 1 Actual

Subject Name: Junior Engineer

**Creation Date:** 2015-08-18 11:48:48.0

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

### Junior Engineer

Group Number:	1
Group Id:	4
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:
Section Marks:
150.0

Sub-Section Number: 1
Sub-Section Id: 4
Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 601 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Control volume refers to

### **Options:**

1. A fixed region in space

2 🙎 A specified mass

3. \* An isolated system 4 & A reversible process only Question Number: 2 Question Id: 602 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** All of the following are intensive properties EXCEPT **Options:** 1. Mass Density Pressure Temperature Question Number: 3 Question Id: 603 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Fourier's law of heat conduction gives the heat flow for **Options:** Irregular surfaces Non-uniform temperature surfaces 3. One dimensional cases only Two dimensional cases only Question Number: 4 Question Id: 604 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Absorptivity of a body is equal to its emissivity **Options:** For a polished body 2. Under thermal equilibrium At one particular temperature At shorter wave lengths Question Number: 5 Question Id: 605 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 A two stroke engine can be identified by **Options:** Cooling system 2. Lubrication system

Absence of valves Piston size Question Number: 6 Question Id: 606 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A four stroke, four cylinder SI engine has a swept volume of 450 CC and compression ratio is 8. The clearance volume of each cylinder is equal to **Options:** 48 CC 2 × 55 CC 3. **✓** 65 CC 4. 🗱 70 CC Question Number: 7 Question Id: 607 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Piston rings are usually made of **Options:** 1. V Cast iron Aluminium Babbitt Carbon steel Question Number: 8 Question Id: 608 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In submerged arc welding, an arc is produced between a **Options:** Carbon electrode and the work Metal electrode and the work Bare metal electrode and the work Two tungsten electrodes and the work Question Number: 9 Question Id: 609 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33 Weld spatter is

1. A flux A filler material used in gas welding A filler material used in soldering A welding defect Question Number: 10 Question Id: 610 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Investment casting uses pattern made of **Options:** Metal Wood Plastic 4. Wax Question Number: 11 Question Id: 611 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Slag inclusion in casting is a **Options:** Internal defect 2 Moulding defect 3 **✓** Surface defect Superficial defect Question Number: 12 Question Id: 612 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Knurling is an operation **Options:** 1 sof cutting smooth collars of under cutting done without use of coolant  $_{4.}$  of generally roughing the surface for hand grip

Question Number: 13 Question Id: 613 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The process in which the edge of the sheet is folded over itself to increases the stiffness of the part, is called	
Options:	
Dimpling 1. **	
Hemming 2.	
Spinning Spinning	
4. * Peen forming	
Question Number: 14 Question Id: 614 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33	
The usual value of the helix angle of a drill is	
Options:	
1. <b>20</b> °	
2. <b>30°</b>	
3. <b>%</b> 45°	
4. <b>*</b> 60°	
Question Number: 15 Question Id: 615 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33	
Question Number: 15 Question Id: 615 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6	
Correct: 1.0 Wrong: 0.33	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is	
Correct: 1.0 Wrong: 0.33 Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms  20 ohms and 30 ohms	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms 20 ohms and 30 ohms 5 ohms and 10 ohms	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms  2 w 20 ohms and 30 ohms  10 ohms and 20 ohms	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms  2  20 ohms and 30 ohms  3  5 ohms and 10 ohms  4  20 ohms and 20 ohms  Question Number: 16 Question Id: 616 Question Type: MCQ Option Shuffling: No	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms 2 20 ohms and 30 ohms 3 5 ohms and 10 ohms 4 10 ohms and 20 ohms  Question Number: 16 Question Id: 616 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33  A closed path made by several branches of network is known as	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms 2 20 ohms and 30 ohms 3 5 ohms and 10 ohms 4 10 ohms and 20 ohms  Question Number: 16 Question Id: 616 Question Type: MCQ Option Shuffling: No  Correct: 1.0 Wrong: 0.33  A closed path made by several branches of network is known as  Options:	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms 22 20 ohms and 30 ohms 33 5 ohms and 10 ohms 40 ohms and 20 ohms  Question Number: 16 Question Id: 616 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33  A closed path made by several branches of network is known as  Options:  1 ** branch	
Correct: 1.0 Wrong: 0.33  Effective resistance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is  Options:  10 ohms and 15 ohms 2 20 ohms and 30 ohms 3 5 ohms and 10 ohms 4 10 ohms and 20 ohms  Question Number: 16 Question Id: 616 Question Type: MCQ Option Shuffling: No  Correct: 1.0 Wrong: 0.33  A closed path made by several branches of network is known as  Options:	

```
junction
Question Number: 17 Question Id: 617 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Brushes of DC machines are usually made up of
Options:
1. 🗸 carbon
      mild steel
      cast iron
      aluminium
Question Number: 18 Question Id: 618 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 Small DC motors having upto 5 H.P. usually have
Options:
2 poles
      4 poles
      6 poles
      8 poles
Question Number: 19 Question Id: 619 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 Humming sound produced in a transformer is usually due to
Options:
      load fluctuations
      oil used in the transformer
      magnetostriction
      mechanical vibrations
Question Number: 20 Question Id: 620 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Which of the following is a widely used insulating and cooling transformer liquid?
Options:
1. mineral oil
2. 💥 water
```

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heavy water
      mercury
Question Number: 21 Question Id: 621 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The difference between synchronous speed and actual speed of a motor is called
Options:
      lag
     regulation
4. a backlash
Question Number: 22 Question Id: 622 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 Which of the following motor is self starting?
Options:
      Split motor
     Shaded pole motor
      Reluctance motor
      Hysterisis motor
Question Number: 23 Question Id: 623 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 Water hammer pressure is relieved by
Options:
      penstock
      draft tube
      turbine
     surge tank
Question Number: 24 Question Id: 624 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
 TIG Welding stands for
Options:
. Temperature Insulated Gas Welding
```

Tungsten Inert Gas Welding Thermally Induced Gas Welding Tungsten Insulated Gas Welding Question Number: 25 Question Id: 625 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The type of modulation used in the T.V picture transmission is **Options:** 1. amplitude modulation phase modulation frequency modulation modulation is not needed Question Number: 26 Question Id: 626 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The process of extracting the signal from the modulated wave is called **Options:** modulation detection amplification resonance Question Number: 27 Question Id: 627 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** An OR gate has 4 inputs. One input is high and the other three are low. The output **Options:** is high is low is alternately high and low may be high or low depending on inputs Question Number: 28 Question Id: 628 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Decimal 43 in hexadecimal is

1. ✓ <sup>2B</sup>
2. <b>8</b> 2
2C
4. <b>*</b> C2
Question Number: 29 Question Id: 629 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
A JFET is
Options:
a current controlled device
a low input resistance
a voltage controlled device
is always forward biased
Question Number: 30 Question Id: 630 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33  Which type of gain is achieved using CB configuration
Options:
1. * current
voltage 2. Voltage
resistance 3. **
4. * power
Question Number: 31 Question Id: 631 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
In a vaccum diode, emission of electrons happens due to
Options:  electric field
2. * magnetic field
3. ✓ heating
4. * electron bombardment
Question Number: 32 Question Id: 632 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33  Which of the following cannot actually move?

1 \* free electrons ions holes majority careers Question Number: 33 Question Id: 633 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The mean value of half wave rectified sine wave is **Options:** 1 × 0.707 I 2 8 0.6371 3 🙀 0.5 I 4. 🛷 0.318 | Question Number: 34 Question Id: 634 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A silicon controlled rectifier is a **Options:** Unijunction device Device with two junctions Device with three junctions Device with four junctions Question Number: 35 Question Id: 635 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The unit of elastic modulus is the same as those of **Options:** Stress, shear modulus and pressure Strain, shear modulus and force 3 Shear modulus, stress and force Stress, strain and pressure Question Number: 36 Question Id: 636 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Relative density of a compacted dense sand is approximately equal to **Options:** 

1. 8 0.4

2. 🗸 0.95 0.50 1.10 Question Number: 37 Question Id: 637 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which one of the following is the mode of failure in a fillet weld material? **Options:** 1. \* Tension 2. V Shear 3. 🚜 Bearing 4 & Crushing Question Number: 38 Question Id: 638 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Kinematic viscosity of gases on increase of temperature **Options:** Decreases Increases Remains the same First decreases then increases Question Number: 39 Question Id: 639 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Benchmark is established by **Options:** Hypsometry Barometric levelling 3. 

✓ Spirit levelling Trigonometrical levelling Question Number: 40 Question Id: 640 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A critical path has **Options:** Zero float 2 Minimum float

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Maximum float
     Infinite float
Question Number: 41 Question Id: 641 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
A sample of cement is said to be sound when it does not contain free
Options:
     Lime
2 * Silica
3. * Iron oxide
4 🚜 Alumina
Question Number: 42 Question Id: 642 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
   The tensile strength of concrete is approximately what percent of compressive strength of
concrete
Options:
1 * 50%
2 * 20%
з. 🧳 10%
4 * 5%
Question Number: 43 Question Id: 643 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The eddy viscosity for turbulent flow is
A function of temperature only
     A physical property of the fluid
3 Dependent on the flow
       Independent of the flow
Question Number: 44 Question Id: 644 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The type of surveying which requires least office work is
Options:
    Tacheometry
```

2. \* Trigonometrical levelling

3. Plane table surveying Theodolite surveying Question Number: 45 Question Id: 645 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The ratio of volume of voids to the total volume of soil mass is called **Options:** Air content 2 / Porosity Percentage air voids 4. Woids ratio Question Number: 46 Question Id: 646 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which is the purest form of iron? **Options:** Cast iron 2 w Wrought iron 3 🗱 Mild steel 4. 🐞 High carbon steel Question Number: 47 Question Id: 647 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Commonly used instruments in power system measurement are **Options:** 1 / induction 2 × moving coil or iron 3 \* rectifier 4 a electrostatic Question Number: 48 Question Id: 648 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Damping of the Ballistic galvanometer is made small to **Options:** 1. pet first deflection large 2 make the system oscillatory 3 a make the system critically damped 4 & get minimum overshoot

Question Number: 49 Question Id: 649 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The rectifier instrument is not free from **Options:** 1 \* temperature error wave shape error 3 / frequency error both wave and frequency error Question Number: 50 Question Id: 650 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Alternating current is measured by **Options:** 1 / induction ammeter 2 🙎 permanent magnet type ammeter 3 \* electrostatic ammeter 4 \* moving iron repulsion type voltmeter Question Number: 51 Question Id: 651 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Most sensitive galvanometer is **Options:** 1 \* elastic galvanometer y vibration galvanometer 3 \* Duddlb galvanometer 4 🛷 spot ballistic galvanometer Question Number: 52 Question Id: 652 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The suspended solids present in surface water can be determined by **Options:** 1. gravimetric test colourimetric test

titrimetric test

spectrophotometric test

Question Number: 53 Question Id: 653 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The disease caused by mercury is known as

itai - itai blue baby disease 3. 🕢 minimata skin disease Question Number: 54 Question Id: 654 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Length to width ratio of rectangular sedimentation tank should be **Options:** 3:4 1 8 2. 🗸 3:1 4:1 1:5 Question Number: 55 Question Id: 655 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The average concentration of ozone in troposphere is **Options:** 1. 8 0.3 ppm 2 🕢 0.05 ppm 0.5 ppm 0.1 ppm Question Number: 56 Question Id: 656 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A condition of sudden permanent aural damage resulting from an intense short term exposure of noise is called **Options:** 1. acoustic trauma annoyance temporary threshold shift permanent threshold shift Question Number: 57 Question Id: 657 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** 

The acidity in the atmosphere is basically caused due to emission of SOx and NOx. The

percentage contribution of SOx and NOx in the formation of acidity is

1. * 80 % and 20 % respectively
2. V 70 % and 30 % respectively
3. * 50 % and 50 % respectively
4 8 60 % and 40 % respectively
Question Number: 58 Question Id: 658 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:
1 * Chain printers
2. Line printers
Band printers
4. Ink-jet printers
Question Number: 59 Question Id: 659 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Which of the following is not true about PROM?
Options:
1. Random access memory
2. Programmable read only memory
3. Non-volatile memory
4. Sequential access memory
Question Number: 60 Question Id: 660 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Which of the following components of CPU is responsible to direct the system to execute instructions?
Options:
1 Arithmetic and Logic Unit (ALU)
2. Control Unit (CU)
3. Registers
4. * Random Access Memory (RAM)
Question Number: 61 Question Id: 661 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
BCD stands for
Options:

```
Binary Coded Decimal
Binary Code Display
3 & Bidirectional Coded Data
4 * Binary Coded Data
Question Number: 62 Question Id: 662 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The binary representation of 144.5 is _____
1. * (10010000.01)2
2 (10010001.11)2
3. V (10010000.10)<sub>2</sub>
4 (10011001.11)2
Question Number: 63 Question Id: 663 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 * X
2 # 1
3 ✔ 0
4 * X'
Question Number: 64 Question Id: 664 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 The 2's compliment of the binary number (10000000)<sub>2</sub> is
Options:
1 (01111111)
(10101010)<sub>2</sub>
(10000000)<sub>2</sub>
4 8 (01010101)2
For the above question, User had specified 'ignore' during keys upload.
Question Number: 65 Question Id: 665 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Linux is a/an
Options:
Application software
2 × | Word processor
Batabase management system
```

4 System software Question Number: 66 Question Id: 666 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Class 'B' IP addresses use \_\_\_\_\_\_ bits for Host ID. **Options:** 1 8 8 2 16 3 3 24 4 32 Question Number: 67 Question Id: 667 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following is not a Web browser? **Options:** 1 Metscape Navigator 2 💥 Safari 3 W HTML 4 & Chrome Question Number: 68 Question Id: 668 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The meaning of R.F. is **Options:** 1 & Reducing fraction 2 V Representative fraction 3 \* Reduction factor 4 \* Representative factor Question Number: 69 Question Id: 669 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** If a line is parallel to both H.P. and V.P., its true length will be seen in **Options:** Both front and top views 2 \* only in side view 3 & only in front view 4 & only in top view Question Number: 70 Question Id: 670 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Planes which are inclined to both the horizontal and vertical planes are known as **Options:** 1 auxiliary planes

2 \* profile planes 3. \* reference planes 4. oblique planes Question Number: 71 Question Id: 671 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In first - angle projection system, the right hand side view of an object is drawn **Options:** 1 a right of the elevation 2 \* above the elevation 3. V left of the elevation 4 \* below the elevation Question Number: 72 Question Id: 672 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A square lamina is perpendicular to the H.P. and parallel to V.P.. Its horizontal trace will be **Options:** 1. \* perpendicular to the reference line 2. parallel to the reference line 3 \* inclined to the reference line 4 & a point Question Number: 73 Question Id: 673 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A 0.5 kg ball is accelerated from rest to 12 m/s in 0.30 s. The force applied on the ball during its motion is **Options:** 1 / 20 N 2 8 6.0 N 3 \* 40 N 4 \* 3.6 N. Question Number: 74 Question Id: 674 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** 

The acceleration due to gravity near the surface of Earth (radius R) is proportional to

- 1 38 R
- 2. 3 1/R
- 3 \* R2

 $4. < 1/R^2$ .

Question Number: 75 Question Id: 675 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A ball of mass 10 kg is moving with a velocity 5 m/s. The kinetic energy of the ball is

### **Options:**

- 1. \$ 50 J
- 2 V 125 J
- 3 🗱 250 J
- 4 🗱 25 J.

Question Number: 76 Question Id: 676 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

. The end of a string is vibrated up and down once every 1.5 s and waves propagate at 6 m/s along

the string. The wavelength of the waves is

### **Options:**

- 1 \$ 4.0 m
- 2 V 9.0 m
- 3 🙎 0.25 m
- 4 \* 1.5 m.

Question Number: 77 Question Id: 677 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

An object is placed somewhere between the focus and centre of curvature of a concave mirror.

Which of the following best describes the image formed?

### **Options:**

- 1 Real, inverted and magnification greater than one
- Real, inverted and magnification less than one
- yirtual, upright and magnification greater than one
- 4 \* Virtual, upright and magnification less than one.

Question Number: 78 Question Id: 678 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Two 1.5 V batteries in series power a transistor radio. The batteries hold a total charge of 270 C.

If the radio has a resistance of 100  $\Omega$ , the batteries will last

- 1. \$ 5.0 hours
- 2.5 hours
- 3 8 1.25 hours
- 4 \* 33 hours.

Question Number: 79 Question Id: 679 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 what is the value of X in the following equation; 4 NH3 + X O2 ---> 4NO + 6H2O **Options:** 2 1. 38 2 3 3 4. \$ 5 Question Number: 80 Question Id: 680 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 During the electrolytic refining of copper using copper sulphate as an electrolyte **Options:** 1 Impure copper is made the anode 2 \* Impure copper is made the cathode 3 🗶 (ii) only 4 🔉 (iii) only For the above question, User had specified 'ignore' during keys upload. Question Number: 81 Question Id: 681 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The electronic configuration of an element is 2, 8, 1. To which of the following elements will it be similar? **Options:** 1 / 2,1 2 3 2, 8, 4 3 \$ 2,7 4 2, 8,7 Question Number: 82 Question Id: 682 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A solution containing 80 grams of sodium hydroxide (molecular mass= 40) completely neutralizes another solution containing 98 grams of an acid "A" (molecular mass= 98). The charge on the anion part of "A" is

Options:

2. -2

```
3. 💥 -3
Question Number: 83 Question Id: 683 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Which of the following is a saponification reaction?
Options:
CH3COOH + NaOH ----> CH3COONa + H2O
2 CH3COOH + 2 Na ----> 2 CH3COONa + H2
2 CH3CH2OH + 2Na ----> 2 CH3COONa + H2
4 CH3COOCH3 + NaOH ----> CH3COONa + CH3OH
Question Number: 84 Question Id: 684 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Which of the following is a molecule of an element?
Options:
1. * Neon (g)
2 Chlorine (g)
3 x Sulphur dioxide (g)
4 🗱 Water (I)
Question Number: 85 Question Id: 685 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Which out of the following perform all body functions in a single cell?
Options:
Bacteria only
Bacteria and Protozoa
3 🚜 Bacteria ,Protozoa and Fungi
4 * Protozoa only
Question Number: 86 Question Id: 686 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
In the food chain given below who gets the least energy?
            _____ Caterpillars _____ Birds ____ Cats
 Leaves
Options:
1 & Leaves
2 & Caterpillar
3 🗱 |Bird
```

4. V Cat

Question Number: 87 Question Id: 687 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which part of the flower becomes the seed after fertilization?

### **Options:**

1. \* Pollen

2. V Ovule

3 🚜 Ovary

4 & Carpel

 $Question\ Number: 88\ \ Question\ Id: 688\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

One feature in which spiders are different from insects is that spiders have

### **Options:**

jointed legs

> s body covered with chitinous cuticle

3 \* body distinctly divided into parts like head etc.

four pairs of legs

Question Number: 89 Question Id: 689 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

In humans, digestion begins in the

### **Options:**

1 buccal cavity

2 a oesophagus

3 🐹 stomach

4 & intestine

Question Number: 90 Question Id: 690 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which is not a hereditary feature in humans?

### **Options:**

1 × Height

2. Weight

```
Blood group
4. Eye colour
Question Number: 91 Question Id: 691 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The HCF of two numbers is 15 and their LCM is 210. If one number is 105, the other number
Options:
1. * 15
2 4 30
3. * 45
4. * 75
Question Number: 92 Question Id: 692 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The least number which when divided by 10, 15 and 18, leaving remainder 5 in each case is
Options:
1 * 85
2 * 90
3 № 95
4 * 105
Question Number: 93 Question Id: 693 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 * 8:15
3 * 4:5
4 * 3:4
Question Number: 94 Question Id: 694 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
If 25, x, 5, 3 are in proportion, then x is equal to
Options:
1 * 5
2 15
3. * 75
4 * 125
```

Question Number: 95 Question Id: 695 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Successive discounts of 20% and 5% are equivalent to a single discount of
Options:
1. <b>* 25</b> %
2. * 22%
3 <b>× 21</b> %
4. <b>24</b> %
Question Number: 96 Question Id: 696 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
The simple interest on rupees 800 for 3 years at 5% per annum in rupees is
Options:  1. * 24
2 * 40
₃ ✓ 120
4 * 140
Question Number: 97 Question Id: 697 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Compound interest on rupees 8000 for 1 year at 10% per annum compounded half yearly is
Options:
1.   ✓ 800
2 * 1680
3 × 840
4 * 820
For the above question, User had specified 'ignore' during keys upload.
Question Number: 98 Question Id: 698 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33  If CP of 7 articles is equal to SP of 5 articles, then in the whole transaction there is a profit
of
Options :
1. <b>₹ 40</b> %
2 × 30%

Question Number: 99 Question Id: 699 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

₃ ≈ 25%

To gain 20% after allowing a discount of 5%, the shopkeeper should mark the price of the article which cost him ₹ 475 as

### **Options:**

1 3 ₹ 4500

2 3 ₹ 550

3 ₩ ₹600

4. \$ ₹650

Question Number: 100 Question Id: 700 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A shopkeeper mixes 35 kg of wheat which cost him ₹ 15 per kg with 25 kg of wheat which costs him ₹ 20 per kg. He sells the mixture at ₹ 22 per kg. His gain is

### **Options:**

Question Number: 101 Question Id: 701 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 3:4 and 2:3 respectively. The ratio in which these are mixed to obtain new mixture which contains milk and water in the ratio 20:29 is

### **Options:**

1 8 6:5

2 \$ 7:9

3. 2:5

4 \$ 3:5

Question Number: 102 Question Id: 702 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

A person cycles from one place to another in 100 minutes. If his speed is 18 km/h, the distance between two places is

### **Options:**

1 \* 20 km

2 🖋 30 km

3 \* 15 km

4 \* 25 km

Question Number: 103 Question Id: 703 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A train 200 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

### **Options:**

1 \$ 40

2 \$ 50

3 8 60

4 4 70

Question Number: 104 Question Id: 704 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 B alone can do the same work?

### **Options:**

1 1 72

2 # 60

3 \* 36

4 30

Question Number: 105 Question Id: 705 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 R alone can do the same work?

### **Options:**

1 \* 70

2. 4 60

3 \* 45

4 \$ 30

Question Number: 106 Question Id: 706 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The average of first six even whole numbers is

### **Options:**

1. \$\square\$ 5

2 3 6

3 \* 7

4 \* 8

Question Number: 107 Question Id: 707 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 girls is 40 kg. If the number of girls is 40, the average weight of boys in kilograms is

### **Options:**

1 \* 40

2. \$ 45

Question Number: 108 Question Id: 708 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The common difference of an AP in which  $a_{18} - a_{13} = 45$  is

**Options:** 

Question Number: 109 Question Id: 709 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The tenth term of the GP 3, 1,  $\frac{1}{3}$ , ...is

**Options:** 

Question Number: 110 Question Id: 710 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  $60^{\circ}$  with the wall, the distance of the foot of the ladder from the wall is Options:

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

Question Number: 111 Question Id: 711 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 bank on the opposite side of the river are  $60^{\circ}$  and  $45^{\circ}$  respectively. If the bridge is at a height of 4m from the bank, the width of the river is

$$\frac{4(3+\sqrt{3})}{3}$$
 m

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

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

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

Question Number: 112 Question Id: 712 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

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

### **Options:**

- 1. \* 1
- 2. 1
- 3. \* 2
- 4 \* 2

Question Number: 113 Question Id: 713 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

One of the factors of  $(49x^2 - 1) + (1 + 7x)^2$  is

### **Options:**

$$_{1} * 7 + x$$

$$4 \approx 7x - 1$$

Question Number: 114 Question Id: 714 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

All values of k for which  $2x^2 + kx + 8 = 0$  has real roots is

### **Options:**

$$_3 * -2\sqrt{2} \le k \le 2\sqrt{2}$$

$$_{4} * 2\sqrt{2} \le k \le -2\sqrt{2}$$

Question Number: 115 Question Id: 715 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The sum and product of the roots of the equation  $-5 x^2 + 2x - 10 = 0$  are respectively

$$-\frac{2}{5}$$
, 2

$$_{2.} * 2, -\frac{2}{5}$$

$$\frac{2}{5}$$
, 2

$$-\frac{2}{5},-2$$

Question Number: 116 Question Id: 716 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which statement is not true for a game of Badminton?

### **Options:**

- Total points to be scored are 21

  If both sides score upto game point, the winner needs two clear
- points in a row
- 🔒 🙀 The game never ends in a draw
- Total points to be scored are 15

Question Number: 117 Question Id: 717 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Paralympics is a multisport event involving those athletes who are

### **Options:**

- only visually challenged
- only hearing impaired
- 3 🐞 just mentally challenged
- with a range of physical disability

Question Number: 118 Question Id: 718 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Whose saying 'Earth has enough for man's need but not enough for man's greed' is often being quoted by speakers on Environment?

Options:

- Independent India's first Prime Minister
- The second President of India
- The Environmentalist, Madhav Gadgil

# The father of our nation

Question Number: 119 Question Id: 719 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The country called 'Land of the Rising Sun' is

### **Options:**

- 1 China
- Norway
- 3. 🅢 Japan
- 4 Sweden

Question Number: 120 Question Id: 720 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The term 'collegium system' was recently seen in the newspapers.

With which field is this term associated?

### **Options:**

Education

2. Judiciary

3. Politics

4 Constitution

Question Number: 121 Question Id: 721 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

One of the following is not an objective of the Mid-day Meal scheme in school launched by the government. Select from options given below

**Options:** 

Provide full nutritional support to children at the Primary stage of

1 \* education

Encourage disadvantaged section of the society to attend school

- regularly and concentrate on studies
- Improve the nutritional status of children in the primary section

  Bridge the gender and social category gaps in schools at the primary

4. V level itself

**Question Number: 122 Question Id: 722 Question Type: MCQ Option Shuffling: No** 

**Correct : 1.0 Wrong : 0.33** 

Which one out of the values of the Indian constitution means 'having complete freedom and being the supreme authority'?

## **Options:** Socialism 2 Secularism Sovereignty Liberty Question Number: 123 Question Id: 723 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** There are two forms of government, presidential and parliamentary. Which type of government do India, US and England have? **Options:** India – Parliamentary, England – Parliamentary, US – Parliamentary India – Presidential, England – Parliamentary, US – Presidential 3 ✔ India – Parliamentary, England – Parliamentary, US – Presidential All three countries have Presidential form Question Number: 124 Question Id: 724 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** If you were to measure the strength of a current which instrument would you look for? **Options:** 1 \* Voltmeter Thermometer 3 Ammeter

Barometer

Question Number: 125 Question Id: 725 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Another term for genetic engineering is

### **Options:**

1. Recombinant DNA technology

2. \* Polymerase Chain Reaction

DNA Fingerprinting

DNA Typing

Question Number: 126 Question Id: 726 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which function of the body is not carried out by long bones?

### **Options:**

- Providing support to legs
- 2 Formation of blood
- Making the neck rotate to body bend on the sides
- Serving as platform for attachment of muscles

Question Number: 127 Question Id: 727 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which disease does Quinine cure and from which plant is it obtained?

### **Options:**

- Malaria ; Cinchona
- Blood Pressure ; <u>Rawolffia</u>
- 3 🗶 Tuberculosis ; <u>Nicotiana</u>
- 4 🚜 Jaundice ; <u>Hibiscus</u>

Question Number: 128 Question Id: 728 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The artificial satellites cannot be used for

### **Options:**

- Relaying Radio, TV and Telephone signals
- Weather forecasting
- Monitoring atmospheric pollution
- 4 \* Exploring solar system

Question Number: 129 Question Id: 729 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Of the Slav population scattered in Eastern Europe, those who began the Pan Slav movement to have one state were

### **Options:**

1 Serbians

Bulgarians 🌉

Romanians

4. Polish

Question Number: 130 Question Id: 730 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

# Who built the Pyramids? Options: 1. ✓ Pharaohs 2. ※ Chinese Confucians

Question Number: 131 Question Id: 731 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

4 🙀 Romans

The king of Mauryan Empire who in 322 BC uprooted Greeks from Punjab and Nandas from the Gangetic plane was

### **Options:**

1 

✓ Chadragupta

Bindusar

3. Ashok

🚜 🚜 Mahapadmananda

Question Number: 132 Question Id: 732 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which method will you use to separate yoghurt (Curd) from water contained in it?

### **Options:**

1 Spistillation

2 Crystallisation

з 🕢 Filtration

4 \* Decantation

Question Number: 133 Question Id: 733 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Out of two bottles of pickle, one old and one freshly made, the old one can be detected by its smell and taste caused by

### **Options:**

Oxidation of oil in the pickle making it rancid

2. \* Invasion of bacteria causing putrefaction

Reduction in volume of oil in the pickle

🗸 😦 Fermentation by yeast

Question Number: 134 Question Id: 734 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

### Hair dyes may contain the base

### **Options:**

- 1 Sodium Hydroxide
- Ammonium Hydroxide
- 💂 🧝 Calcium Hydroxide
- Potassium Hydroxide

Question Number: 135 Question Id: 735 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A bicycle pump works on the principle:

### **Options:**

- When volume decreases, pressure increases
- When volume increases, pressure increases
- Air pressure at one point becomes zero
- 4 \* At one point volume and pressure become equal

Question Number: 136 Question Id: 736 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

What is not true of the Thar Desert?

### **Options:**

- Has arid and semiarid weather conditions throughout the year
- The flora is mainly cacti and thorny bushes

Water is available in sinduates and streams which are always there

- 3 🛷 even without rainfall
- 4 Rainfall is scanty

Question Number: 137 Question Id: 737 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33 What is a hotspot?

### **Options:**

- A region of high endemic biodiversity
- 2. A geographical area with very high exotic bio-diversity
- A region of scanty rainfall

An area of constant high temperature

4 %

Question Number: 138 Question Id: 738 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Give the term for 'Price of one currency in terms of another'.

# Options: 1 \* Effective exchange rate

- Nominal exchange rate
- Spot rate
- Purchasing Power Parity

Question Number: 139 Question Id: 739 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The labour or workforce of a country does not include one of the following.

### **Options:**

- Employees of Government
- Self employed
- Unemployed
- 4 Those of age less than 14 years

Question Number: 140 Question Id: 740 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The terms of trade measure

### **Options:**

- Ratio of export prices and import prices
- Sum of export prices and import prices
- Difference of export price and import price
- Product of export price and import price

Question Number: 141 Question Id: 741 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

Pointing to a portrait, Suresh said, "His father is the husband of my father's only daughter." How is the person in the portrait related to Suresh?

### **Options:**

1. uncle

2. a nephew

cousin

brother

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

Question Number: 142 Question Id: 742 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.

27:65:125:?

### **Options:**

1. 217

2 \* 237

3 253

4. \* 344

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

Question Number: 143 Question Id: 743 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.

School: Student:: Hospital:?

## **Options:**

Doctor

2 \* Patient

🚆 🙀 Nurse

₄ 

Inmates

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

Question Number: 144 Question Id: 744 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

A team of five is to be selected from among five boys P, Q, R, S, and T and four girls A, B, C and D with the following conditions.

- B and R have to be put together.
- (ii) P cannot be put with D.
- (iii) C and Q cannot be together.
- (iv) S cannot be put with A.

If the team would consist of 3 boys and 2 girls, the team will consist of:

## Options:

1. RTSBA

TCAPQ

DTQPS

QBATR

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

Question Number: 145 Question Id: 745 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. Wall 2. Brick 3. Decoration 4. House 5. Clay 6. Room

**Options:** 

2, 5, 1, 6, 3, 4

5, 2, 1, 6, 3, 4

3 \$ 5, 2, 1, 6, 4, 3

4 \$ 5, 1, 2, 6, 4, 3

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

Question Number: 146 Question Id: 746 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:** 

1. 11

2 \* 10

14

3. 🗱

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

Question Number: 147 Question Id: 747 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

In a certain language, '283' means 'trees have leaves'; '758' means 'leaves are green'; and '2495' means 'forests have green bushes'. Which digit means 'forests' in that language?

**Options:** 

1 / 9

2 \* 4

3. a either 4 or 9

# 4 \* either 2 or 9

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

Question Number: 148 Question Id: 748 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

If 'QUESTION' is coded as 'OTEQUSIN', then 'COMPUTER would be

coded as:

## **Options:**









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

Question Number: 149 Question Id: 749 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Starting from his school, Vipul moves 5 km to the West, takes a left turn and moves 10 km. He then takes two successive left turns covering 10 km and 15 km respectively. Finally he takes another left turn and covers 10 km.

In which direction is he now with respect to his school?

## **Options:**







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

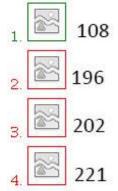
Question Number: 150 Question Id: 750 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

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

3	8	11
6	4	10
45	80	?

# **Options:**



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

# **Railway Recruitment Board**

### **Notations:**

1. Options shown in green color and with  $\checkmark$  icon are correct.

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

**Question Paper Name:** Junior Engineer 27th Aug Shift 2 Actual

Subject Name: Junior Engineer
Creation Date: 2015-08-18 12:47:00.0

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

## Junior Engineer

Group Number:	1
Group Id:	5
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: 5
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: 5
Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 901 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

First law of thermodynamics deals with

## **Options:**

Conservation of heat

Conservation of momentum

3. Conservation of mass 4 V Conservation of energy Question Number: 2 Question Id: 902 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** An isothermal process is governed by **Options:** 1. J Boyle's law 2 & Charle's law 3. Say-lussac's law 4. \* Avogadro's law Question Number: 3 Question Id: 903 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** A carburetor is used to supply **Options:** 1 \* Petrol, air and lubricating oil 2. Air and diesel 3 \* Petrol and lubricating oil 4. Petrol and air Question Number: 4 Question Id: 904 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A diesel engine has compression ratio from **Options:** 1 × 6 to 10 2 × 10 to 15 3. V 15 to 25 4. 25 to 40 Question Number: 5 Question Id: 905 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Heat is closely related with **Options:** 1 & Energy 2 V Temperature 3. \* Entropy 4. \* Enthalpy

Question Number: 6 Question Id: 906 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Metals are good conductor of heat because

### **Options:**

1 W Their atoms collide frequently

Their atoms are relatively far apart

They contain free electron

🗸 🗶 They have high density

 $Question\ Number: 7\ \ Question\ Id: 907\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

Heat conduction in gases is due to

### **Options:**

1 \* Electromagnetic waves

Motion of electrons

3 Mixing motion of the different layers of the gas

4. Flastic impact of molecules

 $Question\ Number: 8\ \ Question\ Id: 908\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct: 1.0 Wrong: 0.33** 

In shielded arc welding

### **Options:**

1 \* Large electrode is used

2 \* Welding rod coated with slag is used

Welding rod coated with flux material is used

3 4

Welding rod is not used

Question Number: 9 Question Id: 909 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Oxyacetylene flame having more amount of C2H2 is called

## **Options:**

1 & Oxidizing flame

Neutral flame

3 V Carburizing flame

4 \* Red flame

Question Number: 10 Question Id: 910 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

# Nose radius is expressed in

### **Options:**

- 1 Begree
- 2. a Radian
- 3. 🖋 mm
- 4 × Steradian

Question Number: 11 Question Id: 911 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

An ideal tool material is the one which

### **Options:**

- 1 \* Has very long life
- 2. Has same life at all cutting speed
- 3 \* Produces no heat during cutting
- Produces smooth surface finish

Question Number: 12 Question Id: 912 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Chills are used in casting moulds to

#### **Options**:

- 1. Achieve directional solidification
- Reduce possibility of blow holes
- 3 \* Reduce the freezing time
- 4 \* Increase the smoothness of surface

Question Number: 13 Question Id: 913 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The two parts of a sand casting mould are called

### **Options:**

- 1. Sate and sprue
- 2. Upper and drag
- 3. ✔ Cope and drag
- Cope and bottom

Question Number: 14 Question Id: 914 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

An engine operates between temperature limits of 900 K and T2; and another between T2 and 400 K. For both the engines to be equally efficient, T2 should be equal to

## Options:

1. 🛷 600 K

2. × 650 K

3. **8** 625 K

4 × 700 K

Question Number: 15 Question Id: 915 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A network or circuit that does not contain any source of emf is known as

## **Options:**

1. \* Active network

2 \* Linear circuit

3 🗱 Bilateral network

4. Passive network

Question Number: 16 Question Id: 916 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The number of brushes in the commutator depends upon

### **Options:**

speed of armature

2. \* type of winding

3. 🕷 voltage

4. amount of current to be collected

 $Question\ Number: 17\ \ Question\ Id: 917\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

The phenomenon of "crawling" in an induction motor occurs due to

#### **Options:**

improper design of machine

2. a low voltage supply

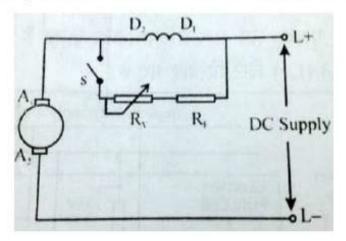
3. \* high load

4 w harmonics developed in the motor

Question Number: 18 Question Id: 918 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

.Determine the speed control method for a DC motor shown in the following figure:



## **Options:**

- 1 Field diverter method
- Armature diverter method
- 3 \* Tapped Field Control
- Resistance diverter control

Question Number: 19 Question Id: 919 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A no-load test is performed on a transformer to determine

### **Options:**

- magnetising current only
- core losses only
- 3. efficiency
- magnetising current and losses

Question Number: 20 Question Id: 920 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The ratio of secondary turns to primary in a transformer is 3. If the emf in the secondary coil is 600 V, emf in the primary will be

### **Options:**

1. \* 1800 V

2. × 900 V

3. 🖋 200 V

4. **8** 600 V

Question Number: 21 Question Id: 921 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The shaded pole motor is used for

**Options:** 

1 \* high starting torque 2. V low starting torque medium starting torque very high starting torque Question Number: 22 Question Id: 922 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The equipment installed in power plants to reduce air pollution due to smoke is called **Options:** 1 & De superheaters 2 & Economiser 3 × Preheater Electrostatic Precipitators Question Number: 23 Question Id: 923 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following is not a welding accessory? **Options:** 1 & Goggles 2. Vacuum cleaner 3. Sloves 4 \* Electrode holder Question Number: 24 Question Id: 924 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The key job of the relay is to **Options:** 1. \* increase voltage search the fault 3. \* reduce resistance stop the current flow Question Number: 25 Question Id: 925 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** 100101<sub>2</sub> is equal to decimal number **Options:** 

1. \$ 47

2. 4 37 3. 🗶 21 4. \* 17 Question Number: 26 Question Id: 926 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A counter has N flip flops. The total number of states are **Options:** 1 \* N 2 × N<sup>2</sup> 3. \* 4N 4. 🖋 2n Question Number: 27 Question Id: 927 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In an n-p-n transistor, the majority carriers in the base are **Options:** 1 / holes 2 \* electrons 3 \* both holes and electrons 4 \* either electrons or holes Question Number: 28 Question Id: 928 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Which of the following is used for generating time varying wave forms? **Options:** 1 \* MOSFET 2 # PIN diode 3 x Tunnel diode 4. V UJT Question Number: 29 Question Id: 929 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The voltage across a zener diode **Options:** is constant in forward direction is constant in reverse direction 3 \* is constant in both forward and reverse direction

4. \* is not constant Question Number: 30 Question Id: 930 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of these has highly doped p and n region? **Options:** 1 PIN diode 2. V Tunnel diode 3 \* Photodiode Schottky diode Question Number: 31 Question Id: 931 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** At room temperature a semiconductor material is **Options:** 1 \* perfect insulator superconducting 3. conducting 4. slightly conducting Question Number: 32 Question Id: 932 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following has highest conductivity? **Options:** 1 Silver 2 & Aluminium Platinum 4 \* Tin Question Number: 33 Question Id: 933 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** In TV, an electrical disturbance (noise) affects **Options:** neither the video nor the audio signals only the audio signals 3 \* both the video and audio signals only the video signals

Question Number: 34 Question Id: 934 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

In a mercury arc rectifier, characteristic blue luminosity is due to

### **Options:**

high temperature

electron streams

ionization

4 \* colour of mercury

Question Number: 35 Question Id: 935 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The stress below which a material has a high probability of not failing under reversal of stress is known as

# **Options:**

1 × Tolerance limit

2 # Elastic limit

Proportional limit

4. Findurance limit

Question Number: 36 Question Id: 936 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A pycnometer is used to determine

### **Options:**

Water content and voids ratio

Specific gravity and dry density

Water content and specific gravity

voids ratio and dry density

Question Number: 37 Question Id: 937 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

For M20 grade of concrete, the maximum shear stress shall not exceed

## **Options:**

1. V 1.6 N/mm<sup>2</sup>

2 × 1.9 N/mm<sup>2</sup>

3 × 2.8 N/mm<sup>2</sup>

4. \* 2.2 N/mm<sup>2</sup>

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

Question Number: 38 Question Id: 938 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Lacings are subjected to

### **Options:**

1 \* Transverse loading

2 \* Axial loading plus bending

3. \* Axial loading plus shear force

4. Axial loading only

Question Number: 39 Question Id: 939 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The flow profile of a fluid depends upon

### **Options:**

1 \* Velocity of the fluid only

The diameter of the tube only

3. The Reynold number

The surface roughness

Question Number: 40 Question Id: 940 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

In PERT analysis, event means

### **Options:**

1. V Start or finish of a task

2 × Time taken for a task

3. End of an activity

4 \* Work involved in the project

 $Question\ Number: 41\ \ Question\ Id: 941\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

Plaster of paris is obtained by calcining

### **Options:**

1 Gypsum

2 × Bauxite

3 & Lime stone

4. \* Kanker

 $Question\ Number: 42\ \ Question\ Id: 942\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

# Plywood is obtained from **Options:** 1. \* Bamboo 2. \* Teak wood 3. Structural timber Commonly available timber Question Number: 43 Question Id: 943 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following device is not used to measure the rate of flow **Options:** 1. Wenturimeter 2. V Pitot tube Orificemeter 4. \* Rotameter Question Number: 44 Question Id: 944 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** Intersection method of detailed plotting is most suitable for **Options:** 1. \* Forests Urban areas 3. 🅢 Hilly areas 4 × Plains Question Number: 45 Question Id: 945 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Coarse grained soils are best compacted by a **Options:** 1 \* Drum roller 2. Rubbed tyred roller 3 \* Sheep's foot roller 4 ✓ Vibratory roller

Correct : 1.0 Wrong : 0.33

Percentage of carbon content in mild steel is

Question Number: 46 Question Id: 946 Question Type: MCQ Option Shuffling: No

**Options:** 

1. V Less than 0.25 Between 0.25 to 0.7 3 \* Between 0.7 to 1.5 4 & Greater than 1.5 Question Number: 47 Question Id: 947 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** An induction meter can handle current upto **Options:** 1 \* 10 A 2 × 30 A 3 × 60 A 4. 💉 100 A Question Number: 48 Question Id: 948 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Induction type single phase energy meters measure electric energy in **Options:** 1 \* kW 2 \* Wh з. ✔ kWh 4 × VAR Question Number: 49 Question Id: 949 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following is / are an essential part of a motor meter? **Options:** 1 \* An operating torque system 2 A braking device 3. Revolution registering device operating torque system, braking device and Revolution registering device Question Number: 50 Question Id: 950 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** ----- is an instrument which measures the insulation resistance of an electric circuit relative to earth and one another. **Options:** 1 \* Tangent galvanometer

2. Meggar

- 3. Current transformer
- 4. \* Thermisto

Question Number: 51 Question Id: 951 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The household energy meter is

### **Options:**

- 1 an indicating instrument
- a recording instrument
- 3 an integrating instrument
- 4 \* both integrating and indicating instrument

Question Number: 52 Question Id: 952 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

In house water connection, a ferrule is provided, which is a

## **Options:**

- small sized curved pipe made of a flexible material
- 2. right angled sleeve made of brass or gun metal
- 3 \* galvanised iron pipe of size less than 50 mm diameter
- 4 \* flexible connection between the water main and the service pipe

 $Question\ Number: 53\ \ Question\ Id: 953\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

The prescribed permissible limit of chloride in drinking water is

### **Options:**

- 1 × 150 mg/l
- 2 × 200 mg/1
- 3. 🛷 250 mg/l
- 4. × 300 mg/l

**Question Number: 54 Question Id: 954 Question Type: MCQ Option Shuffling: No** 

Correct: 1.0 Wrong: 0.33

The water treatment plants are generally designed for a period of

### **Options:**

- 1. **3** 50 years
- 2 30 years
- 3. **×** 40 years
- 4. \* 25 years

Question Number: 55 Question Id: 955 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The oxides of nitrogen at higher concentration levels affect a fabric resulting
its colour to change from
Options:
1 * white to black
2. * white to grey
3.
4 * white to pink
Question Number: 56 Question Id: 956 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33  Two machines are working in a noisy environment. Machines are jointly producing
75 dBA noise level, however, the background noise level is also 75 dBA. The
summation of these two noise levels is
Options:
1. * 150 dBA
2. * 75 dBA
3.    78 dBA
4. * 81 dBA
Question Number: 57 Question Id: 957 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 In stratosphere, the ozone concentration
Options:
1 * increases with altitude
2. V found maximum at mid and decreases either side
3. * decreases with altitude
uniformly distributed within the sphere
Question Number: 58 Question Id: 958 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Mouse is a(an)
Options:
1.  ✓ Input device
2. * Output device
Storage device

8 Both input and output device Question Number: 59 Question Id: 959 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following is not true about EEPROM? **Options:** Random access memory Electrically erasable programmable read 2 a only memory 🛪 🔉 Non-volatile memory 4 🛷 Sequential access memory Question Number: 60 Question Id: 960 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following is not a valid category of "system bus" in a computer system? **Options:** 1 a Data bus 2 & Control bus 3 × Address bus 4 Memory bus Question Number: 61 Question Id: 961 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** EBCDIC stands for **Options:** Extended Binary Coded Data Interchange 1 & Code Expanded Binary Coded Decimal 2 \* Interchange Code Extended Binary Coded Decimal 3 / Interchange Code Expanded Binary Coded Data Interchange 4 \* Code Question Number: 62 Question Id: 962 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The octal representation of 195.25 is **Options:** 1 (303.20)8 2 (303.02)8

```
3. * (313.20)8
4. * (323.20)8
Question Number: 63 Question Id: 963 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
 Considering X as a binary variable, the Boolean expression X + X' is equivalent to
Options:
1 * X
2 1
3. 🗱 0
4. 🕷 X'
Question Number: 64 Question Id: 964 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
 The 2's compliment of the binary number (11111111)<sub>2</sub> is
Options:
1 (10000000)2
2. * (00000000)2
3 (00000001)<sub>2</sub>
4 (01010101)2
Question Number: 65 Question Id: 965 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
Which of the following operating systems is case sensitive?
Options:
1. VUnix
2 MS-DOS
3. MS-Windows
4 Mac OS X
Question Number: 66 Question Id: 966 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Class 'C' IP addresses use bits for Host ID.
Options:
1. 🗸 8
2 * 16
3. * 24
4. * 32
```

Question Number: 67 Question Id: 967 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Which of the following is not an e-mail protocol?
Options:
1. * POP
2. * IMAP
3. SMTP
4. FTP
Question Number: 68 Question Id: 968 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
The diagonal scale is used to represent
Options:
three consecutive units
two consecutive units
diagonal of square
diagonal of rectangle
Question Number: 69 Question Id: 969 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
2. Top view
Side view
Both front and top views
Question Number: 70 Question Id: 970 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
perpendicular to horizontal plane and parallel to vertical plane

parallel to both horizontal and vertical planes Question Number: 71 Question Id: 971 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** For orthographic projections, BIS recommends the following projections. **Options:** Fourth-angle projection Third-angle projection First- angle projection Second-angle projection Question Number: 72 Question Id: 972 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 A square lamina 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 V.T. will be inclined to the reference line Question Number: 73 Question Id: 973 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** A force gives a certain mass an acceleration a. If the force is doubled and the mass is reduced to half of its original value, the acceleration becomes **Options:** a 2a 3. **√** 4a 4 × 6a. Question Number: 74 Question Id: 974 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** 

Let F1 and F2 be the force between two bodies separated by a distance d and 2d

respectively. Then F2/F1 is

**Options:** 

2. \* 1/2

2 8 4

4. 1/4.

Question Number: 75 Question Id: 975 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The time taken to perform 320 J of work at a rate of 64 W is

### **Options:**

1. \* 0.2 s

2 V 5 s

3 × 10 s

4. \* 64 s.

Question Number: 76 Question Id: 976 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Radha uses a source A of frequency f and Meera uses another source B of frequency 2 f to produce sound waves in a school science laboratory. Let  $\lambda A$  and  $\lambda B$  represent the wavelength of waves produced by the sources A and B respectively. Then  $\lambda B / \lambda A$  is

## **Options:**

1 \* 1

2 3 2

3 ≥ 0.5

4 \* 4.

Question Number: 77 Question Id: 977 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

An object is placed at a distance less than one focal length from a thin convex lens. Which of the following best describes the image formed?

# **Options:**

Erect, virtual and enlarged

Erect, virtual and diminished

3. \* Inverted, real and enlarged

Inverted, real and diminished.

Question Number: 78 Question Id: 978 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

When two identical resistors are connected in series across a battery, the power dissipated is 10 W. If these resistors are connected in parallel across the same battery, the total power dissipated will be

# **Options:**

1 × 10 W

2 × 20 W

з. 🗸 40 W

4 × 80 W

Question Number: 79 Question Id: 979 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which of the following chemical equation represents the reaction of roasting process?

## **Options:**

1 \* ZnCO<sub>3</sub> ----> ZnO + CO<sub>2</sub>

2 \* ZnO + C ---> Zn + CO

 $_3$   $\checkmark$  2 CuS + O<sub>2</sub> ----> 2CuO + 2SO<sub>2</sub>

4 \* Cu + O₂ ----> 2CuO

Question Number: 80 Question Id: 980 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The charges on aluminum and sulphate ions are +3 and -2 respectively. The correct molecular formula of aluminum sulphate is

## **Options:**

1. \* AlSO<sub>4</sub>

2 \* Al<sub>3</sub>(SO<sub>4</sub>)<sub>2</sub>

3. \* AL2(SO4)3

4 Al2(SO4)3

Question Number: 81 Question Id: 981 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Corrosion of iron is

### **Options:**

Protection of its surface from atmospheric gases

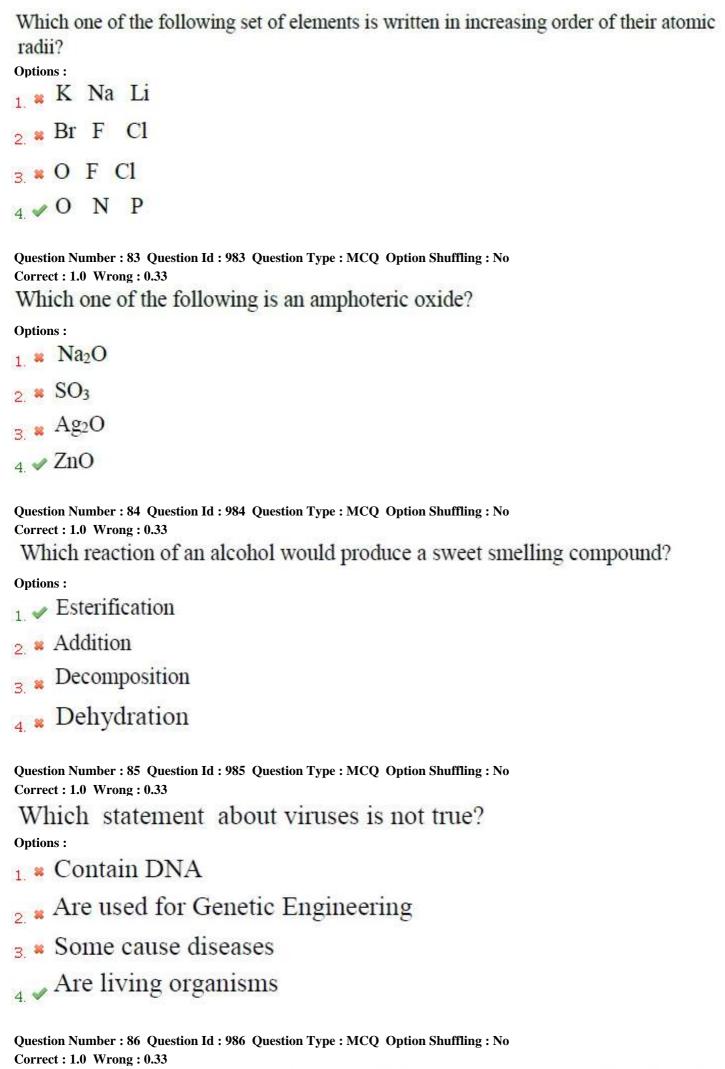
A physical change

a process of oxidation

4 \* a process of Reduction

Question Number: 82 Question Id: 982 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 



From which chamber of the heart does Pulmonary artery carry blood to the lungs?

## **Options:**

- Left Ventricle
- 2 \* Left Atrium
- 3 \* Right Atrium
- Right Ventricle

Question Number: 87 Question Id: 987 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

A layer of gas prevents solar radiations to go back into space and causes Global Warming. Which gas is it?

## **Options:**

- Oxygen
- 2. Carbon dioxide
- 3 \* Sulphur dioxide
- 4 × Nitrogen

 $Question\ Number: 88\ \ Question\ Id: 988\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

Who gave the 'Laws of Inheritance' and is considered as' The Father of Genetics'?

Options:

- Gregor Johann Mendel
- Charles Darwin
- 3 \* Isaac Newton
- 4 \* James Watson

Question Number: 89 Question Id: 989 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

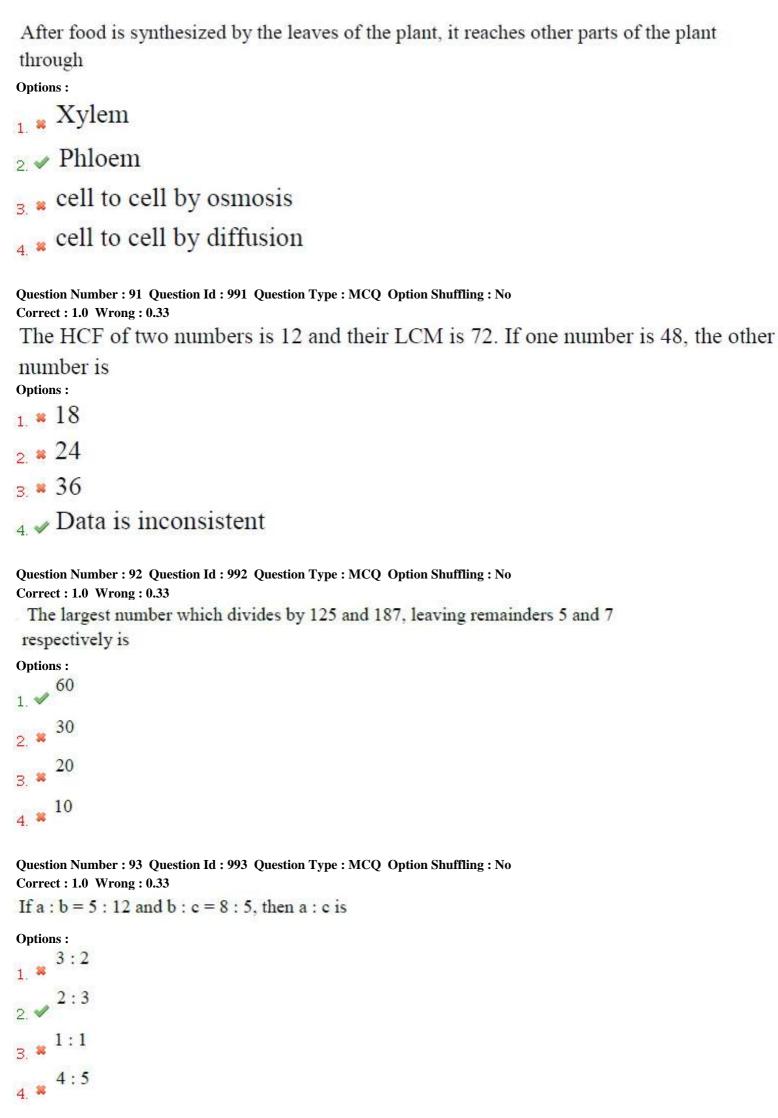
The time taken by the fetus (developing embryo) to complete development inside the mother's womb is approximately

## **Options:**

- 1 & 6 months
- 8 months 10 days
- 3 √ 280 days
- 4 \* 320 days

Question Number: 90 Question Id: 990 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 



Question Number: 94 Question Id: 994 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
If 27, 12, 24, x are in proportion, then x is equal to
Options:
1. • 9
30
2. *
3. **
4. * 60
For the above question, User had specified 'ignore' during keys upload.
Question Number: 95 Question Id: 995 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
Successive discounts of 30% and 20% are equivalent to a single discount of
Options:
1. <b>*</b> 40%
2. 44%
3. <b>*</b> 45%
4. * 50%
Question Number: 96 Question Id: 996 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 In how many years rupees 500 will amount to rupees 800 at simple interest of 10 % per year?
Options:
1. \$\square\$ 6
2. * 8
3. <b>× 10</b>
4 <b>×</b> 16
Question Number: 97 Question Id: 997 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Compound interest on ₹ 16000 for 1 year at 10% per annum compounded half yearly
is
Options:
1 * 1600
2.    1640
3. ₩ 1680
4 * 3360

Question Number: 98 Question Id: 998 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

If C.P. of 15 articles is equal to S.P. of 12 articles, then in the whole transaction there

is a

**Options:** 

1 \* Loss of 25%

2 \* Loss of 20%

3 ✓ Profit of 25%

4 \* Profit of 20%

Question Number: 99 Question Id: 999 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

To gain 20% after allowing a discount of 5%, the shopkeeper should mark the price of the article which cost him ₹ 950 as

**Options:** 

1 \* ₹ 1000

2 \* ₹ 1100

3 ✓ ₹ 1200

4 \* ₹ 1300

 $Question\ Number: 100\ \ Question\ Id: 1000\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

A shopkeeper mixes 60 kg of sugar which costs him ₹ 20 per kg with 40 kg of sugar which costs him ₹ 25 per kg.. He sells the mixture at ₹ 26 per kg. His gain percent is

**Options:** 

 $Question\ Number: 101\ \ Question\ Id: 1001\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

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

**Options:** 

1 \* 9:8 2 \* 8:9 3 \* 21:10

4 45:32

Question Number: 102 Question Id: 1002 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Speed of a boat in still water is 15 km/h. the speed of the stream is 3 km/h. The time taken to go 6 km upstream in minutes is

## **Options:**

- 1 \* 20
- 2. 4 30
- 3. \* 24
- 4 \* 25

 $Question\ Number: 103\ \ Question\ Id: 1003\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

A train 120 m long is moving at 40 km/h. The time in seconds, it will take to pass another train 100 m long which is moving at 32 km/h in the opposite direction from the moment they meet is

## **Options:**

- 1 11
- 2. \* 22
- 3. \* 44
- 4. \* 88

 $Question\ Number: 104\ \ Question\ Id: 1004\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

A can do a piece of work in 20 day and B can do the same work in 30 days. If they work together, the number of days required to do the same work is Options:

- 1 \* 18
- 2 \* 16
- ₃ ≈ 14
- 4. 12

Question Number: 105 Question Id: 1005 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 R alone can do the same work?

# **Options:** <sub>1</sub> **\*** 70 2 \* 60 ₹ 🗸 40 4 \* 30 Question Number: 106 Question Id: 1006 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The average of squares of first five whole numbers is 1 46 2. \* 7.5 3 \* 9 4 \* 11 Question Number: 107 Question Id: 1007 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The average of 21 observations is 40. Out of these observations the average of first 11 observations is 38 and the last 11 observations is 41. The 11th observation is **Options:** 1. \* 19 2 20 ₹ 129 4 \* 39 Question Number: 108 Question Id: 1008 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The first term of an AP is 18 and third term is 10. Its 21st term is **Options:** 1 \* 98 2 \* 62 3 \* - 98 4 4 - 62 Question Number: 109 Question Id: 1009 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** The third term of a G.P. is 16 and sixth term is - 128. The common ratio of the G.P. is **Options:** 1. \* 2

2 -2

```
3. * 4
```

 $Question\ Number: 110\ \ Question\ Id: 1010\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

The angle of elevation of the top of a tower from a point on the ground which is 30 m away from the foot of the tower is 45°. The height of the tower is

# **Options:**

Question Number: 111 Question Id: 1011 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 30° and 60° respectively. If the bridge is at a height of 3 m from the bank, the width of the river is

# **Options:**

$$1 \checkmark 4\sqrt{3}$$
 m

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

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

$$_{4} \approx 2\sqrt{3} \,\mathrm{m}$$

Question Number: 112 Question Id: 1012 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

If (x+2) is a factor of  $x^4 - 4x^2 + 3ax - 12$ , then a is equal to

### **Options:**

Question Number: 113 Question Id: 1013 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

One of the factor of  $(121x^2 - 1) + (1 + 11x)^2$  is

### **Options:**

$$_{1} * (11 + x)$$

$$(11-x)$$

$$_{3}$$
  $\approx (11x - 1)$ 

Question Number: 114 Question Id: 1014 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

All values of k for which  $x^2 + kx + 25 = 0$  has real roots is

# **Options:**

$$_{1} \checkmark 5 \le k \le -5$$

$$\sim -5 \leq k \leq 5$$

$$_3 * k \ge 5$$

$$_{4} * k \ge -5$$

Question Number: 115 Question Id: 1015 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The sum and product of the roots of the equation  $x^2 - x - \bar{4} = 0$  are respectively

# **Options:**

$$_{3} = -4, 1$$

$$_{4.}$$
  $\checkmark$  1,  $-4$ 

Question Number: 116 Question Id: 1016 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

With which game is the Ranji Trophy associated?

### **Options:**

1 \* Football

2. \* Hockey

3. V Cricket

4 8 Basket ball

Question Number: 117 Question Id: 1017 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

In women's tennis records, which of the following is an unmatched pair of champion and championship Trophy won by her

# **Options:**

1 ✓ Li Na : Wimbledon

- 2. Serene Williams : Australian Open
- 3 \* Maria Sharapova : French Open
- 4 \* Samantha Stosur : US Open

Question Number: 118 Question Id: 1018 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

How many states does India have, and which is the last one to get statehood?

**Options:** 

1 ≥ 29 : Telengana

2 \* 24 : Delhi

22 : Lakshadweep

4 \* 30 : Uttaranchal

Question Number: 119 Question Id: 1019 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Of which political party is Mamata Banerjee the leader?

**Options:** 

- 1 \* Bahujan Samaj Party
- 2 Trinamool Congress
- 3 \* Forward Block
- Communist Party (Marxist)

Question Number: 120 Question Id: 1020 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which of the following statement is not true regarding the second five year plan of India?

**Options:** 

The plan was based on the Mahalanobis model of economic development, the

- architect of which was the Indian statistician PC Mahalanobis
- The second five year plan was operational from 1956 -1961

The plan assumed a closed economy in which the main trading activity would be

3 \* centered around importing capital goods

The plan also focused on agriculture, that being the main sector on which the largest chunk of our population depended

Question Number: 121 Question Id: 1021 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

What is 'The Euro?'

# **Options:**

- ₁ ✓ The single European currency
- 2 \* The citizens of Europe
- Name of a European T.V company
- Abbreviation for 'European Union'

Question Number: 122 Question Id: 1022 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

To abide by the Constitution and respect its ideals and institutions is a

# **Options:**

- Fundamental Right
- 2 Fundamental duty
- 3 \* Human Right
- 4 \* Natural desire

Question Number: 123 Question Id: 1023 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

What does Universal Adult Franchise mean?

### **Options:**

All adults who have completed 21 years of age have the right to participate in the

1 \* electoral process

Candidate aspiring to be member of legislative assembly should at least be 25

- 2 \* years old
- 3 \* A girl cannot marry till she attains age of 18 and boy till he is 21

Any citizen of India 18 years of age or above can vote irrespective of race, caste,

4 / religion, sex, place of birth

Question Number: 124 Question Id: 1024 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Decibel is the unit of

#### **Options:**

- speed of light
- Intensity of heat
- 3 / Intensity of sound
- Quantum of mass

Question Number: 125 Question Id: 1025 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

One early morning, with no traffic on roads, Rahul while cycling down from Red Fort to his residence noted the distance covered and the total time taken to reach home. What can he calculate from this data?

#### **Options:**

- 1 \* Velocity
- 2. Speed
- 3. \* Acceleration
- 4 \* Displacement

Question Number: 126 Question Id: 1026 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Who founded the Ramakrishna Mission?

#### **Options:**

- Ramakrishna Paramahansa
- Saradamani
- 2 %
- Swami Vivekananda
- Rani Rashmoni

Question Number: 127 Question Id: 1027 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

Which pair out of the following is radioactive as available abundantly?

#### **Options:**

- Lead & Mercury
- 2. A Radium & Uranium
- 3 Sodium & Potassium
- 4 \* Carbon & Silicon

Question Number: 128 Question Id: 1028 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Sun's energy does not get converted into

#### **Options:**

- 1 \* biomass
- wind power
- a w nuclear energy
- energy from oceanic waves

Question Number: 129 Question Id: 1029 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The unit for measurement of energy is

# **Options:**

- 1 \* Pascal
- 2 / Joule
- 3. Calorie
- 4 \* Horse power

 $Question\ Number: 130\ \ Question\ Id: 1030\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

After First World War political movement named fascism arose. Out of the following statements which one is not true of fascism

#### **Options:**

- Dictatorship introduced in Italy by Mussolini is called fascism
- German version of fascism is referred to as Nazism
- Fascists were not hostile to democracy and socialism
- 4 \* Adolf Hitler was a fascist

 $Question\ Number: 131\ \ Question\ Id: 1031\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

Energy experts predict that many countries will face severe electricity blackouts very soon because

#### **Options**

- Demand would surpass supply
- World's natural oil supply is fixed
- Electrical supply is fast being eroded by terrorists in many parts of the world
- 4 Greater demand for energy and extreme depletion of oil and natural gas

Question Number: 132 Question Id: 1032 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which is the correct difference between topography and landscape Options:

- Topography is natural, landscape is the handiwork of humans
- 2 \* Topography is of diverse kinds, landscaping is not
- Landscape is determined by nature, topography by humans
  Himalayas and Thar desert are part of landscape of India, sea beach is
- 4 \* topographical

Question Number: 133 Question Id: 1033 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

When both kidneys in a patient fail to work, he/she may survive by undergoing

#### **Options:**

- Kidney transplant only
- 2 Dialysis only
- → Dialysis or Kidney Transplant
- \* It is not possible to survive if kidneys fail

Question Number: 134 Question Id: 1034 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

How can a food chain comprising grass, goat and humans be correctly represented?

# **Options:**

Grass → goat ← humans

2 \* Grass ← goat ← humans

3 

Grass → goat → humans

↓ Humans → goat → grass

Question Number: 135 Question Id: 1035 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Every cell of human body has a nucleus except

#### **Options:**

- 1 & Liver cells
- y Kidney cells
- ∃ Red blood corpuscles
- 4 Brain cells

 $Question\ Number: 136\ \ Question\ Id: 1036\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

Many ancient monuments have been spoilt by acid rain which is

- Rain water containing nitrogenous compounds like ammonia
- 2 Rain water with pH 8
- Rain drops which are corrosive due to presence of Hydrochloric acid
  Rain with highly acidic pH due to presence of pollutants like oxides of Nitrogen
  and Sulphur

Question Number: 137 Question Id: 1037 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

What is not true about the Jan Dhan Yojana of PM Narendra Modi?

#### **Options:**

It is a scheme aiming to accomplishing the objective of providing banking

- 1 \* accounts with a debit card
- 2. Scheme of opening ATM banking for all accounts new and old
- 3 \* It has the facility of overdraft upto Rs. 5000/- for Aadhar Card linked accounts
- 4 \* It has inbuilt accident insurance

 $Question\ Number: 138\ Question\ Id: 1038\ Question\ Type: MCQ\ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

Select the appropriate information about cartels.

#### **Options:**

Cartels are group of nations getting together to decide on price & quantity of a

- 1. ocmmodity.
- 2. \* Every country has many cartels.
- 3 & Group of individuals can also form cartels.
- Cartels can also be formed by a group of industries

Question Number: 139 Question Id: 1039 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

What is meant by 'Wholesale Price'?

#### **Options:**

- 1 Price of goods at factory gate
- 2. \* Price of a basket of goods and services
- 3 \* Minimum price fixed for import of a commodity
- Maximum price fixed for export of a commodity

Question Number: 140 Question Id: 1040 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which Mughal emperor proclaimed Deen-e-Ilahi or Divine Faith?

#### **Options:**

- 1 \* Babar
- 2 🚜 Humayun
- 3 😮 Shahjahan
- 4 / Akbar

Question Number: 141 Question Id: 1041 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

B is married to D who is the daughter of C. C is the father of E who is the brother of A.

How is B related to A?

#### **Options:**

- 1 brother-in-law
- cousin
- 3. \* father-in-law
- 4 × uncle

 $Question\ Number: 142\ \ Question\ Id: 1042\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**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.

60:120::210:?

#### **Options:**

- 1 316
- 2. \* 327
- 3. 336
- 4. # 430

Question Number: 143 Question Id: 1043 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.

Students: Classroom:: Athletes: ?

#### **Options:**

- 1. \* Team
- 2. 🖋 Stadium
- 3. \* Track
- Sports

Question Number: 144 Question Id: 1044 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Four boys A, B, C and D and four girls E, F, G and H are sitting around a round table. No two girls are sitting next to each other. D is sitting next to F and is facing A. B is between F and G who is facing H.

Who among the following are sitting next to each other?

# **Options:**

- 1 × HA
- 2 \* AF
- 3. N DG
- 4. ✔ EC

Question Number: 145 Question Id: 1045 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.

4. Seed

5. Tree

6. Wood

3. Study

**Options:** 1 4, 2, 5, 6, 3, 1

Table

- 2 4, 2, 6, 5, 1, 3
- 3. 4, 2, 5, 6, 1, 3
- 4 \$ 2, 5, 4, 1, 6, 3

Question Number: 146 Question Id: 1046 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.

$$(7[27]10)$$
  $(5[?]9)$ 

2. Plant

# **Options:**

- 1 \$ 64
- 2 \* 55
- 3. 🗱 25
- 4 2 16

Question Number: 147 Question Id: 1047 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

In a certain language, '732' means 'go to school'; '4693' means 'school celebrates national days'; and '19584' means 'national days are country's pride'. Which digit means 'celebrates' in that language?

- 1. \* 3
- 2. 4 6

5 × 1

4 \$ 9

Question Number: 148 Question Id: 1048 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

If 'POSTER' is coded as 'SDSRNO', then 'DIRECT' will be coded as:

#### **Options:**

sBDQCH

2. CHQDBS

3. W UDFSJE

Question Number: 149 Question Id: 1049 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Prakash walks 4 km towards West, turns left and walks 5 km. He then turns right and walks 8 km. Finally he turns right and walks 10 km, How far is he from the starting point?

# **Options:**

1 \* 5 km

2. 🗸 13 km

3. \* 15 km

4. × 17 km

 $Question\ Number: 150\ \ Question\ Id: 1050\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**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?

	_	
6	15	28
18	60	?

#### **Options:**

1. \* 102

2. \* 112

з. 🕢 140

4. \* 196

# **Railway Recruitment Board**

#### **Notations:**

- 1. Options shown in green color and with  $\checkmark$  icon are correct.
- 2.Options shown in red color and with \* icon are incorrect.

**Question Paper Name:** Junior Engineer 27th Aug Shift 3 Actual

Subject Name: Junior Engineer
Creation Date: 2015-08-18 12:45:52.0

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

# Junior Engineer

Group Number:	1
Group Id:	6
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 :6Section Number :1Section type :OnlineMandatory or Optional:MandatoryNumber of Questions:150Number of Questions to be attempted:150Section Marks:150.0

Sub-Section Number: 1
Sub-Section Id: 6
Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 1051 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Work done in a free expansion process is

#### **Options:**

1. ✓ Zero



```
3. * Negative
     Maximum
Question Number: 2 Question Id: 1052 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The internal energy of an ideal gas is
Options:
A function of temperature only
A function of pressure
     A function of volume
      Both pressure and volume
Question Number: 3 Question Id: 1053 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
The process in which no heat enters or leaves the system is called
Options:
1. Sobaric
     Isothermal
3. 

✓ Isentropic
     Isochoric
Question Number: 4 Question Id: 1054 Question Type: MCQ Option Shuffling: No
Correct : 1.0 Wrong : 0.33
Ignition quality of diesel fuel is indicated by
Options:
     Octane number
     Cetane number
      Raynolds number
     Mach number
Question Number: 5 Question Id: 1055 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
In Spark ignition engine, fuel used is
Options:
1. W Diesel
2. Petrol
```

3 🗶 Kerosene Both Diesel and kerosene Question Number: 6 Question Id: 1056 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The heat flow through solids only by **Options:** Conduction Convection Radiation Does not flow Question Number: 7 Question Id: 1057 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 A perfect black body is **Options:** One which absorbs total radiant energy Black in colour One which does not reflect the radiant energy One which absorbs all radiant energy at all wavelengths Question Number: 8 Question Id: 1058 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Weld spatter is a welding defect due to **Options:** Lack of flux High welding current High welding speed Dirty metal surface Question Number: 9 Question Id: 1059 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** During arc welding, eyes need to be protected against **Options:** Intense glare

Microwave High frequency waves Ultraviolet and infrared radiation Question Number: 10 Question Id: 1060 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Lathe bed is usually made of **Options:** Mild steel 2. Cast iron ∃ # High speed steel Alloy steel Question Number: 11 Question Id: 1061 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Extrusion is the process of **Options:** Producing holes by arc Metal shaping on presses Pushing the heated billet of metal through the orifice Welding two dissimilar metals Question Number: 12 Question Id: 1062 Question Type: MCQ Option Shuffling: No **Correct: 1.0 Wrong: 0.33** A third flask sometimes used between cope and drag is called **Options:** 1. Middle 2 \* Core 3. 🗱 Fillet 4 V Cheek Question Number: 13 Question Id: 1063 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 Gears in mass production is produced by 1. Milling

- 2. Shaping
- 3. W Hobbing
- 4 × Forming

Question Number: 14 Question Id: 1064 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Scab is a

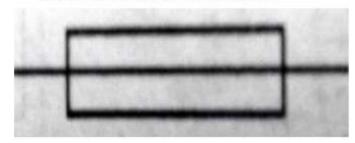
# **Options:**

- Sand casting defect
- Machining defect
- welding defect
- Forging defect

Question Number: 15 Question Id: 1065 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The following symbol depicts



#### **Options:**

- Relay
- Lightning arrester
- 3. V Fuse
- Circuit Breaker

Question Number: 16 Question Id: 1066 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Thermal relay works on the principle of

- Heating effect of current
- Flow of current in the circuit
- Ohm's Law
- Electromagnetic Induction

Question Number: 17 Question Id: 1067 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Which of the following is not a part of a DC machine? **Options:** Stabilizer 2. \* Stator Commutator 4. \* Armature Question Number: 18 Question Id: 1068 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The type of transformer used in a Stabilizer is **Options:** 1 Power Transformer 2. Auto Transformer Current Transformer Distribution Transformer Question Number: 19 Question Id: 1069 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** .Safety relay used in a transformer acts as **Options:** Temperature Gauge Explosion Vent 3. Duchholz Relay Earthing Point Question Number: 20 Question Id: 1070 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The value of slip of an induction motor at synchronous speed is **Options:** 1. 🗸 zero 2. \* infinite 3. \* unity cannot be determined

Question Number: 21 Question Id: 1071 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The motor used in electrical shaving machines is

#### **Options:**

1. Universal motor

Shaded pole motor

Capacitor motor

Reluctance motor

Question Number: 22 Question Id: 1072 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Economiser used in power plants is used to heat

#### **Options:**

1. \* flue gases

2. 🗱 intake air

steam

4. feed water

Question Number: 23 Question Id: 1073 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which of the following is a high head turbine

#### **Options:**

1. \* Propeller turbine

Francis turbine

Kaplan turbine

Pelton wheel turbine

Question Number: 24 Question Id: 1074 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A 4 ohm resistor is connected in a circuit containing 4 V supply. The current drawn is

#### **Options:**

1 × 8 A

2. \* 4 A

3. 🗸 1 A

4. \* 16 A

Question Number: 25 Question Id: 1075 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which of the following rectifiers can withstand maximum voltage on DC side

#### **Options:**

Mercury bulb rectifier

Glass bulb rectifier

3. V Steel tank rectifier

Varactor diode

Question Number: 26 Question Id: 1076 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

In an arc rectifier, the drop in voltage at the cathode is approximately

#### **Options:**

1 × 1 volt

6 to 7 volts

3. **≈** 60 to 70 volts

1.2 to 7 volts

Question Number: 27 Question Id: 1077 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which one of the following converts sound waves into AF signals

#### **Options:**

1. a loudspeaker

2 antenna

3. \* rectifier

4. microphone

Question Number: 28 Question Id: 1078 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which one of the following gives noiseless reception

#### **Options:**

amplitude modulation

phase modulation

frequency modulation

amplitude or phase modulation

Question Number: 29 Question Id: 1079 Question Type: MCQ Option Shuffling: No

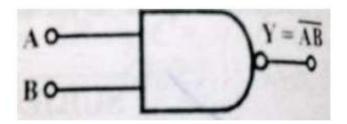
Correct: 1.0 Wrong: 0.33

The basic logic gate whose output is the complement of the input is **Options:** 1 OR gate 2. \* AND gate 3. 

✓ INVERTER gate 4 XOR gate Question Number: 30 Question Id: 1080 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The most commonly used semiconductor material is **Options:** 1. silicon 2 & carbon 3. 🗱 germanium 4 \* phosphorus Question Number: 31 Question Id: 1081 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** For a P-N junction diode, the current in reverse bias may be **Options:** few amperes few milliamperes between 0.5 A to 1 A few microamperes to nanoamperes Question Number: 32 Question Id: 1082 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A full wave bridge rectifier is supplied voltage at 50 Hz. The lowest ripple frequency will be **Options:** 1 # 400 Hz 2 × 200 Hz 3. 🖋 100 Hz 50 Hz 4. 88

Question Number: 33 Question Id: 1083 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

# Identify the following logic gate



# **Options:**

- AND gate
- 2. S OR gate
- 3. 

  ✓ NAND gate
- 4 × NOT gate

Question Number: 34 Question Id: 1084 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The forbidden energy gap for germanium is

#### **Options:**

1. \* 0.12 eV

2. **⊘** 0.72 eV

\_ 👱 1.11 eV

4 × 1.52 eV

Question Number: 35 Question Id: 1085 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The term nominal stress in stress-strain curve for mild steel implies

# **Options:**

- 1. Average stress
- 2 \* Actual stress
- Yield stress
- Stress at necking

Question Number: 36 Question Id: 1086 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Inorganic soil with low compressibility is represented by

# **Options:**

MH

- 2. SL 3. ML
- 4. \* CH

Question Number: 37 Question Id: 1087 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Minimum grade of concrete to be used in reinforced concrete is

#### **Options:**

- 1. \* M 10
- 2. \* M 15
- 3. V M 20
- 4. \* M 25

 $Question\ Number: 38\ \ Question\ Id: 1088\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

Which one of following is a compression member?

#### **Options:**

- 1. \* Purlin
- 2. Boom
- 3. 🚜 Girt
- 4. **%** Tie

Question Number: 39 Question Id: 1089 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Absolute pressure in flow system

#### **Options:**

- is always above local atmospheric pressure
- is equal to a vacuum pressure
- May be above, below or equal to the local atmospheric pressure
- is also called negative pressure

 $Question\ Number: 40\ \ Question\ Id: 1090\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

Gantt charts indicate

# **Options:** Comparison of actual progress with the scheduled progress Balance of work to be done Progressive cost of project Inventory costs Question Number: 41 Question Id: 1091 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** As per Indian Standard specifications, concrete is designated into **Options:** 1 \* 3 grades 2 × 5 grades 3. 7 grades 4. \* 10 grades Question Number: 42 Question Id: 1092 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** First class timber has an average life of **Options:** Less than one year 2 \* 1 to 5 years 3. ✓ 5 to 10 years 4. More than 10 years Question Number: 43 Question Id: 1093 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Equation of continuity is based on the principle of conservation of **Options:** 1. Mass 2 × Energy 3. Momentum 4 × Time Question Number: 44 Question Id: 1094 Question Type: MCQ Option Shuffling: No

The instrument used for accurate centering in plane table survey is

1. Spirit level

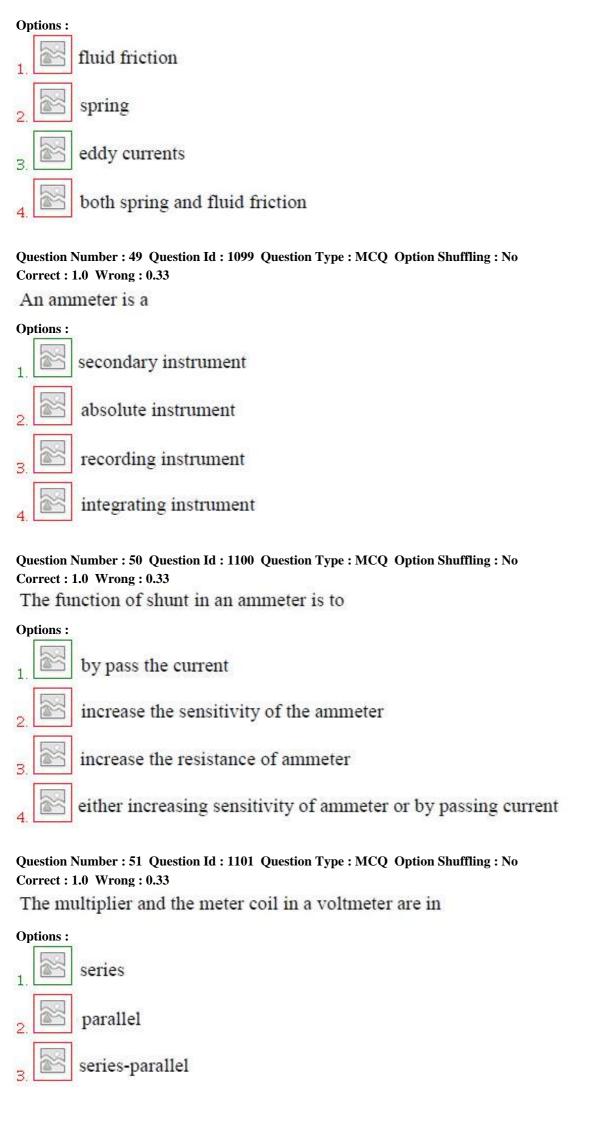
**Options:** 

**Correct : 1.0 Wrong : 0.33** 

2 \* Alidade Plumbing fork Through compass Question Number: 45 Question Id: 1095 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A series of closely spaced contour lines represents a **Options:** 1. V Steep slope Gentle slope Uniform slope Plane surface Question Number: 46 Question Id: 1096 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 After storage, the strength of cement **Options:** Decreases Increases Remains same May increase or decrease Question Number: 47 Question Id: 1097 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The pointer of an indicating instrument should be **Options:** very light very heavy either light or heavy neither light nor heavy

 $\label{eq:Question Number: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33} \\$ 

In majority of instruments, damping is provided by



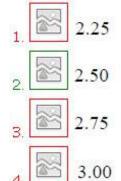
# bi- junction mode

Question Number: 52 Question Id: 1102 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The value of peak factor considered in the estimation of water demand for the population of 1,00,000 is

# **Options:**

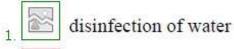


Question Number: 53 Question Id: 1103 Question Type: MCQ Option Shuffling: No

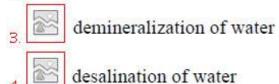
Correct: 1.0 Wrong: 0.33

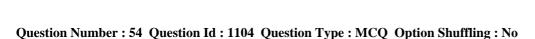
A water borne disease may be controlled by

#### **Options:**



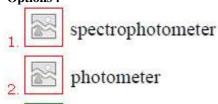




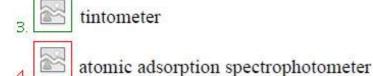


The colour in water is determined using instrument called

# **Options:**



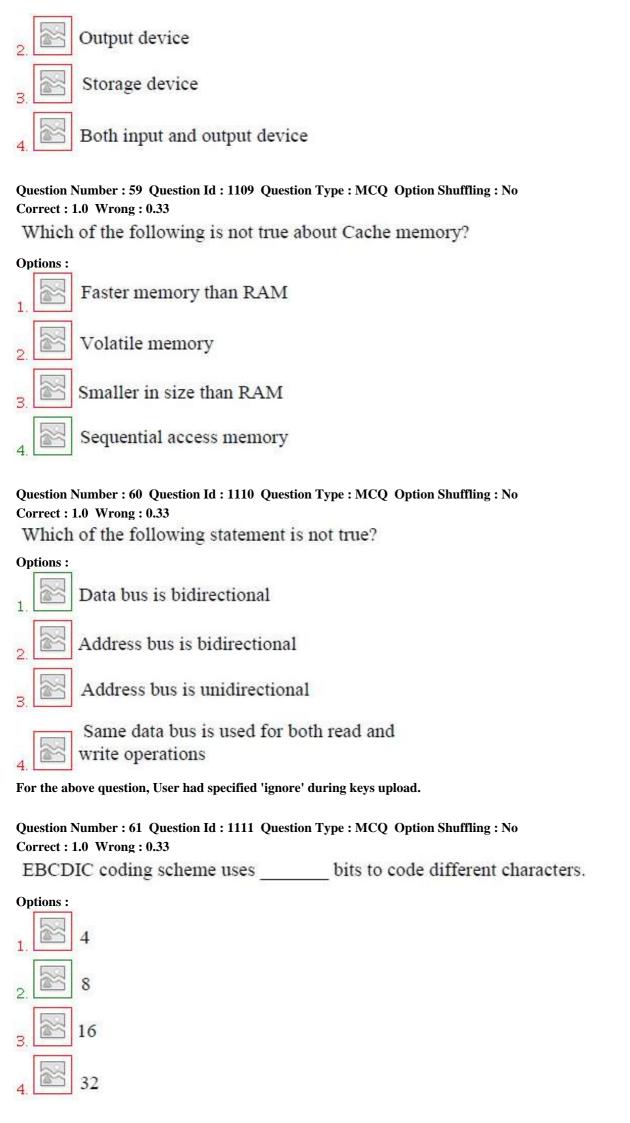
**Correct : 1.0 Wrong : 0.33** 



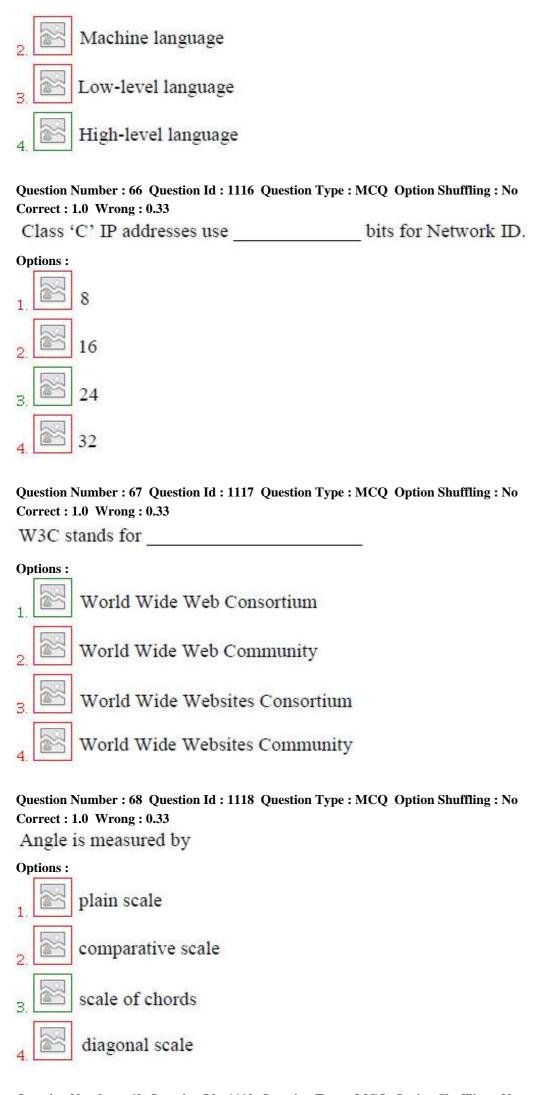
Question Number: 55 Question Id: 1105 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The high concentration level of ozone affects the vegetation and the colour of the
affected part of leaf becomes
Options:
silver
black black
colourless
4. brown
Question Number: 56 Question Id: 1106 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
The unit of sound pressure level, dBA is defined as
Options:
summation of measured and reference sound pressure level
ratio of measured to reference sound pressure levels
ratio of measured to reference sound pressure levels in logarithmic scale
product of measured to reference sound pressure levels
Question Number: 57 Question Id: 1107 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33
The presence of ozone is considered to be boon for humanity in
Options:
troposphere 1.
2. stratosphere
mesosphere mesosphere
ionosphere ionosphere
Question Number: 58 Question Id: 1108 Question Type: MCQ Option Shuffling: No
Correct: 1.0 Wrong: 0.33
Joystick is a(an)
Options:
1. Input device



Question Number: 62 Question Id: 1112 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The hexadecimal representation of 125.25 is **Options:** (7D.40)16 7D.04)16  $(D7.40)_{16}$ (D7.04)16 Question Number: 63 Question Id: 1113 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** Considering X as a binary variable, the Boolean expression X.X' is equivalent to **Options:** Question Number: 64 Question Id: 1114 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33 The 2's compliment of the binary number (10101010)<sub>2</sub> is **Options:**  $(10000000)_2$  $(00000000)_2$  $(01010110)_2$  $(10101010)_2$ Question Number: 65 Question Id: 1115 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A programming language which enables a programmer to write programs that are more or less independent of a particular type of computer is called \_ **Options:** Assembly language



Question Number: 69 Question Id: 1119 Question Type: MCQ Option Shuffling: No

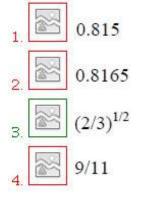
**Correct : 1.0 Wrong : 0.33** If a line is parallel to V.P. and inclined to H.P., its true length will be seen in **Options:** Side view Top view Both front and top views Front view Question Number: 70 Question Id: 1120 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** If a circular plane is inclined at 60° with the H.P. and 30° with the V.P., its side view will be **Options:** a circle a straight line an ellipse true shape

 $Question\ Number: 71\ \ Question\ Id: 1121\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

The exact value of R.F. on an isometric scale is



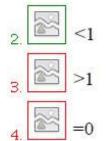


Question Number: 72 Question Id: 1122 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The eccentricity of an ellipse is



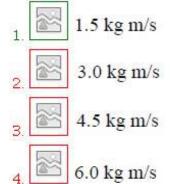


Question Number: 73 Question Id: 1123 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A force acting on a body of mass 1.5 kg, accelerates it from rest to a velocity of 4 m/s. The change in the momentum of the body is

#### **Options:**



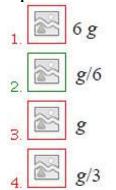
For the above question, User had specified 'ignore' during keys upload.

 $Question\ Number: 74\ \ Question\ Id: 1124\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

Let g be the acceleration due to gravity on the surface of Earth. The acceleration due to gravity on the surface of Moon is

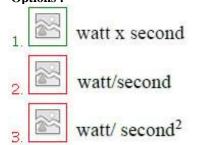
#### **Options:**



Question Number: 75 Question Id: 1125 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The quantity of work equal to one joule is also equivalent to one

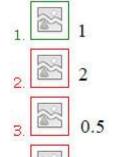


Question Number: 76 Question Id: 1126 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A source A of frequency f and another source of frequency 2f are used to produce sound waves in a science laboratory. Let  $v_A$  and  $v_B$  represent the velocity of waves produced by the sources A and B, respectively. Then  $v_B/v_A$  is

# **Options:**

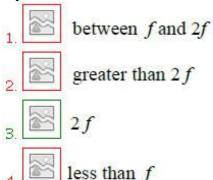


Question Number: 77 Question Id: 1127 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The size of image formed by a convex lens (focal length f) is equal to the size of the object. The object is placed at a distance

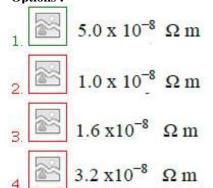
# **Options**:



Question Number: 78 Question Id: 1128 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A 1m long metal wire of radius 1 cm has a resistance of 1.6 x  $10^{-4} \Omega$ . The resistivity of the metal is

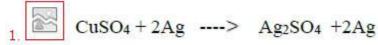


Question Number: 79 Question Id: 1129 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The decreasing order of reactivity of four metals is in the order: Zn > Fe > Cu > Ag. In view of the order of reactivity, which of the following reaction is feasible?

# **Options:**



Question Number: 80 Question Id: 1130 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

Sodium sulphate dissociates in water as follows:

$$Na_2SO_4 = 2 Na^+ + SO_4^{2-}$$

What is the total number of ions present in the solution containing one mole of dissolved sodium sulphate in water?

# **Options:**

 $Question\ Number: 81\ \ Question\ Id: 1131\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

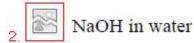
Correct: 1.0 Wrong: 0.33

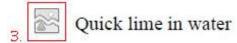
Which of the following is an endothermic process?

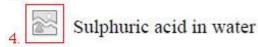
Dissolution of

#### **Options:**







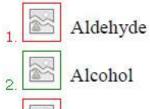


Question Number: 82 Question Id: 1132 Question Type: MCQ Option Shuffling: No

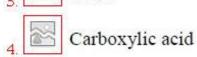
# Correct: 1.0 Wrong: 0.33

An organic compound  $\underline{\mathbf{X}}$ , molecular mass= 46, undergoes dehydration reaction to yield the compound  $\underline{\mathbf{Y}}$ , the first member of olefin homologous series. What is the compound  $\underline{\mathbf{X}}$ ?

# **Options:**





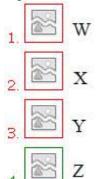


Question Number: 83 Question Id: 1133 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The values of pH of four different solutions of salts W, X, Y, & Z respectively in water are 6.2, 6.5, 6.8 and 7.5 respectively. Which of them is a basic salt?

#### **Options:**

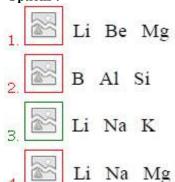


Question Number: 84 Question Id: 1134 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which one of the following set of elements has the same number of valence electrons?

#### **Options:**

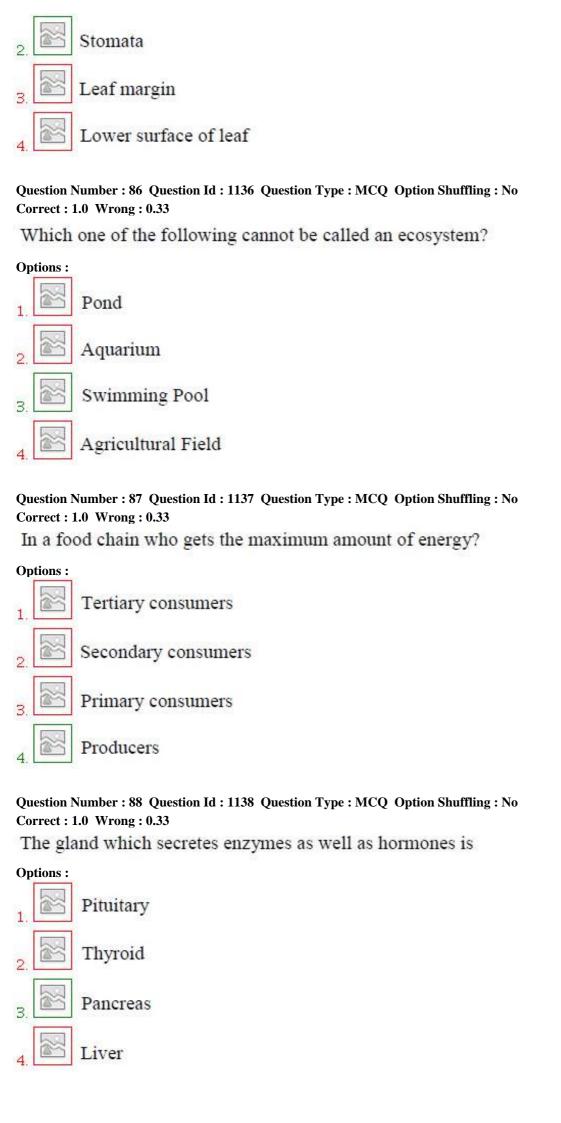


Question Number: 85 Question Id: 1135 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Which part of the leaf makes carbon-dioxide available for Photosynthesis?





Question Number: 89 Question Id: 1139 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** A brown eyed man (BB) married a blue eyed woman (bb). What will be the color of the eyes of their children? (B gene is dominant, b gene is recessive) **Options:** All their children will be brown eyed All will be blue eyed Eye color of all will be a mixture of brown and blue 50 % children will have brown eyes and the other 50% will have blue eyes Question Number: 90 Question Id: 1140 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The Indian thali has (A) chapati or rice (B) dal and (C) green vegetables cooked with very little oil. Which nutrients do A.B. and C have? **Options:** A=Protein, B=Carbohydrates, C=Fat A=Carbohydrates, B=Protein, C=Fat and Vitamins A=Fat, B=Protein ,C=Vitamins A=Vitamins, B=Carbohydrates=Fat Question Number: 91 Question Id: 1141 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** The HCF and LCM of 16 and 25 are respectively **Options:** 0.400 1,400

Question Number: 92 Question Id: 1142 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

1.25

16.25

The least number which when divided by 8 and 12 leaving remainder 5 in each case is Options:

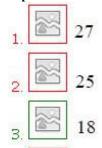


Question Number: 93 Question Id: 1143 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

If a:b=2:3 and a+b=45, then a is equal to

# **Options:**

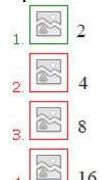


 $Question\ Number: 94\ \ Question\ Id: 1144\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

If  $2,x,x^2,4$  are in proportion, then x is equal to

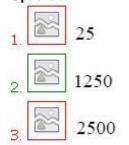
### **Options:**



Question Number: 95 Question Id: 1145 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

If 20% of a number is 250, then number is



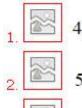


Question Number: 96 Question Id: 1146 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

In how many years ₹ 500 will amount to ₹ 700 at simple interest of 5% per annum?

#### **Options:**





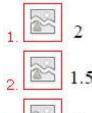


Question Number: 97 Question Id: 1147 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

In how many years ₹ 2000 will amount to ₹ 2100 at 10% per annum compounded half yearly?

#### **Options:**







Question Number: 98 Question Id: 1148 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The cost price of an article is 220. If profit is 10%, then selling price of article is

#### **Options:**









Question Number: 99 Question Id: 1149 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

. If selling price of an article is ₹ 330 and profit is 10%, then cost price of article is

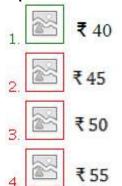


Question Number: 100 Question Id: 1150 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A shopkeeper mixes 10 kg of wheat which cost him ₹ 20/kg with 5 kg of wheat which cost him ₹15/kg. He sells the mixture at ₹21/kg. His profit is

# **Options**:

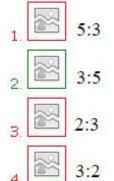


 $Question\ Number: 101\ \ Question\ Id: 1151\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct: 1.0 Wrong: 0.33** 

In two vessels A and B, spirit and water are in the ratio 2:1 and 2:3 respectively. The ratio in which these are mixed which contains half water is

#### **Options:**

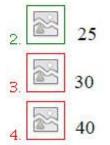


Question Number: 102 Question Id: 1152 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The speed of a car is 72km/h. The time taken by it to cover a distance of 500 m in seconds is



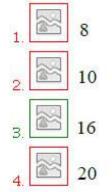


Question Number: 103 Question Id: 1153 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A train 80m long is moving with the speed of 45km/h. The time taken by it in seconds to pass a bridge 120m long is

## **Options:**

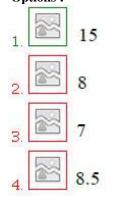


 $Question\ Number: 104\ \ Question\ Id: 1154\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

A and B can do a piece of work in 6 days. A alone can do the same work in 10 days. In how many days B alone, can do the same work?

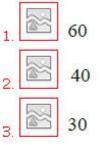
## **Options:**



Question Number: 105 Question Id: 1155 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

P and Q can do a piece of work in 15 days, Q and R in 12 days, and R and P in 20 days. The number of days required for Q to do the same work alone is





Question Number: 106 Question Id: 1156 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The average of 4,6,0,3,6, is

**Options:** 









Question Number: 107 Question Id: 1157 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The average of 20 observations is 18 and average of 30 observations is 25.

The average of all 50 observations is

**Options:** 



21.5





Question Number: 108 Question Id: 1158 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

Sum of first 20 terms of the AP

-4, -2,0,2,.... is

**Options:** 







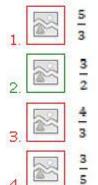


Question Number: 109 Question Id: 1159 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The sum of infinite GP  $1, \frac{1}{3}, \frac{1}{9}, \frac{1}{27}, \dots$  is

## **Options:**

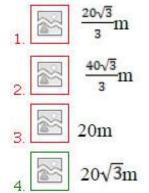


Question Number: 110 Question Id: 1160 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The angle of elevation of top of a tower from a point on the ground 20 m away from the foot of the tower is 60<sup>0</sup>. The height of tower is

## **Options:**

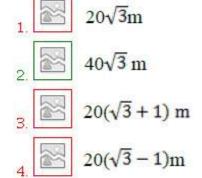


 $Question\ Number: 111\ \ Question\ Id: 1161\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

The angles of elevation of top of a tower, 30m high, from two points on opposite side of the tower are 30° and 60° respectively. If the points and tower are in same line, the distance between two points is

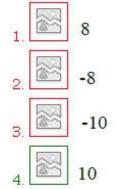
#### **Options:**



Question Number: 112 Question Id: 1162 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

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



Question Number: 113 Question Id: 1163 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

One of the factor of  $(2x+3y)^3 - (5x-2y)^3$  is

## **Options:**









Question Number: 114 Question Id: 1164 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The value of k for which x2+5x-2k=0 has equal roots is

#### **Options:**







Question Number: 115 Question Id: 1165 Question Type: MCQ Option Shuffling: No

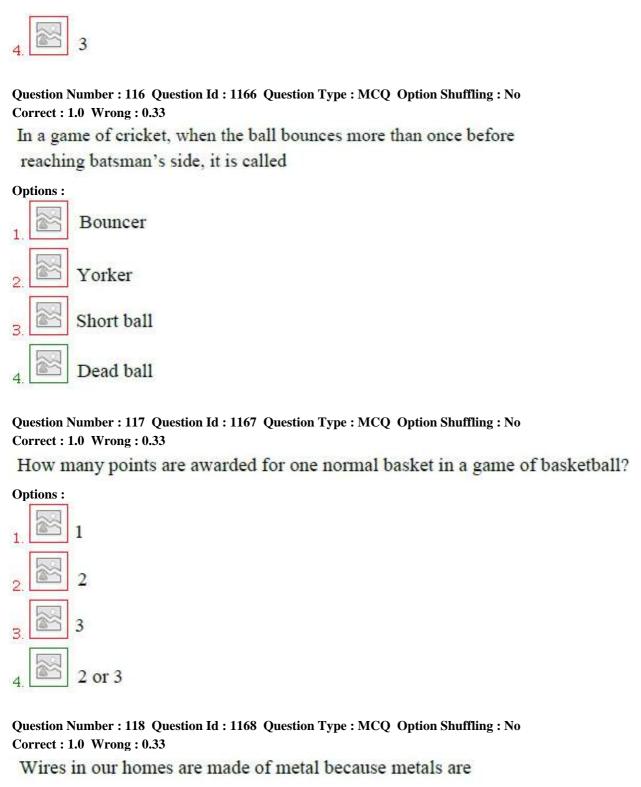
Correct: 1.0 Wrong: 0.33

The sum of squares of the roots of the equation  $x^2+x-2=0$  is









#### **Options:**

good conductors of electricity

cheap and wires are long

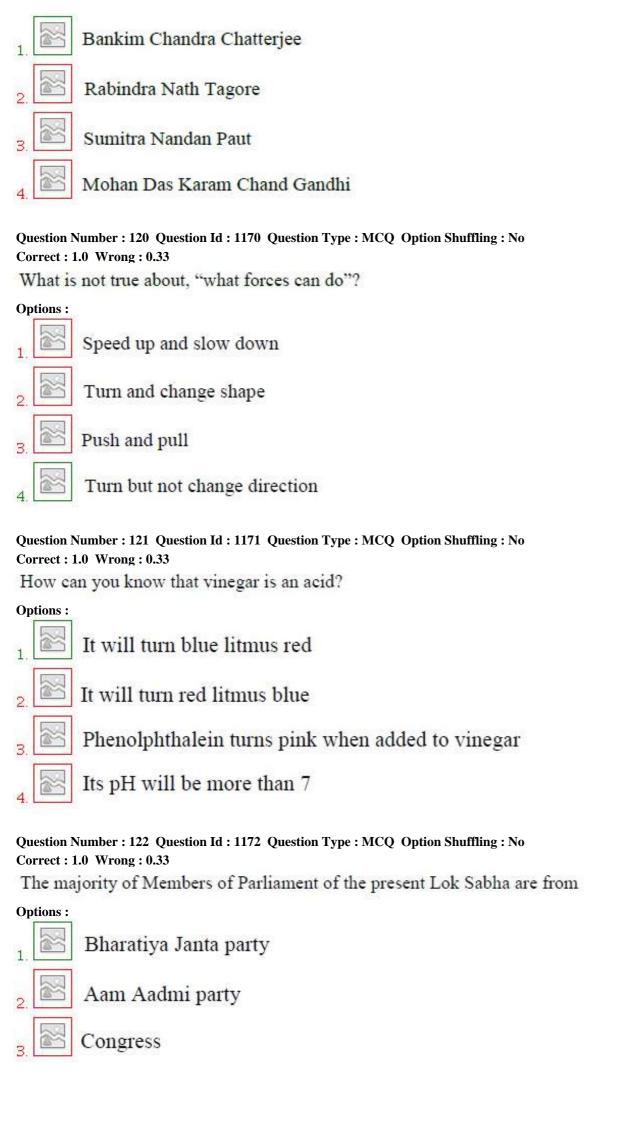
easily available

conveniently covered by insulators

Question Number: 119 Question Id: 1169 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Who wrote our national song, 'Vande Mataram'?



Question Number: 123 Question Id: 1173 Question Type: MCQ Option Shuffling: No

**Correct: 1.0 Wrong: 0.33** 

Alcohols are studied in Organic Chemistry because there are

## **Options:**

Hydrocarbons

Silicon compounds

Ring compounds

Made C, O, N

Question Number: 124 Question Id: 1174 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

When new plants are grown from plant parts other than the flower, it is termed

## **Options:**



Sexual reproduction

Wegetative propagation

Binary fission

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

Question Number: 125 Question Id: 1175 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

When cell division in the body is out of control, it causes

## **Options:**

Fever

Cancer

Inflammation

a and c

 $Question\ Number: 126\ \ Question\ Id: 1176\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

Mules which humans use to carry load are unable to breed because

## **Options:** their parents belong to the same species their parents belong to different species reproductive organs are absent in mules mules are neither female nor male Question Number: 127 Question Id: 1177 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** What is **not** true regarding your image, when you see yourself in the plane mirror? **Options:** Image is of the same size as you It is at the same distance behind the mirror as you are infront of it The face, hands and legs are in the same direction in the mirror as yours Your image is laterally inverted in the mirror Question Number: 128 Question Id: 1178 Question Type: MCQ Option Shuffling: No **Correct : 1.0 Wrong : 0.33** One of the India's past presidents was active as a scientist of repute till his death recently. Select his name. **Options:** Rajendra Prasad Sarvapalli Radhakrishnan A P J Abdul Kalam Pranab Mukherji For the above question, User had specified 'ignore' during keys upload.

d .....

Question Number: 129 Question Id: 1179 Question Type: MCQ Option Shuffling: No

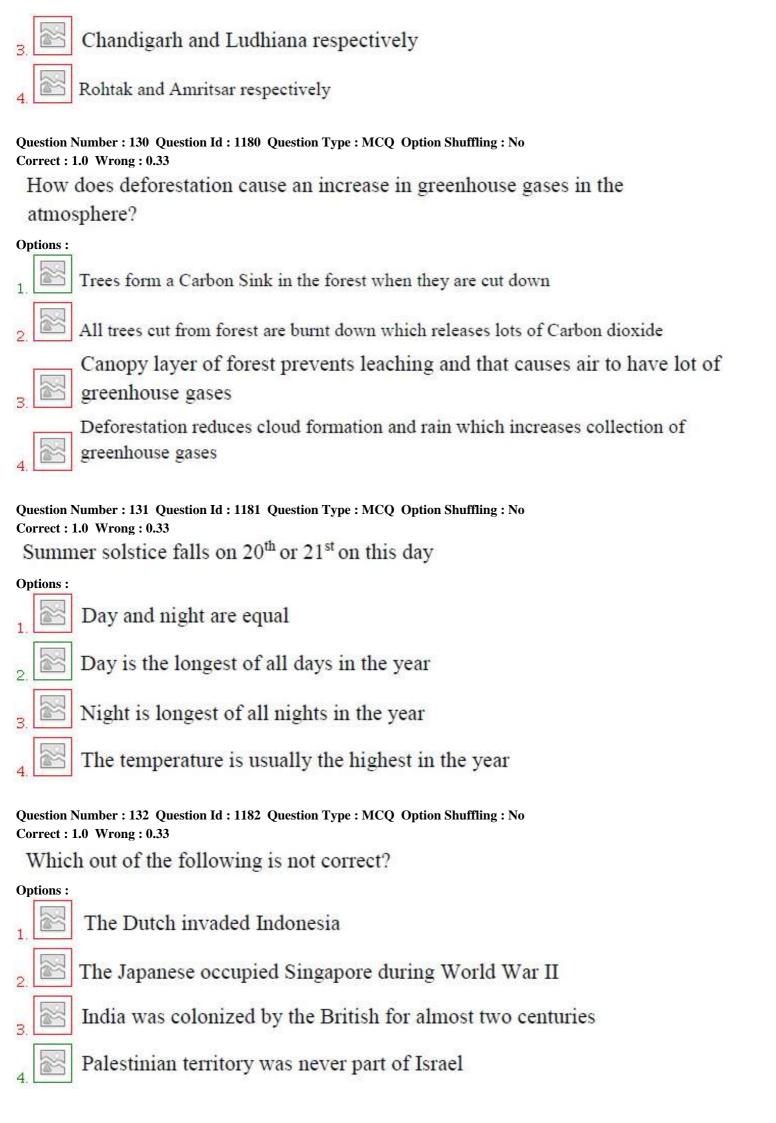
**Correct : 1.0 Wrong : 0.33** 

The state capital of Haryana and Punjab is

#### **Options:**

1. Ambala

Chandigarh



Question Number: 133 Question Id: 1183 Question Type: MCQ Option Shuffling: No Correct: 1.0 Wrong: 0.33

What was the name of the founder of Buddhism, before he renounced the world?

Options:

1.

Gautama

2.

Siddhartha

3.

Partha



Mahaveera

Question Number: 134 Question Id: 1184 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

Which of the following became the greatest landmark in history of mankind as it ushered in an era of liberty, equality and fraternity?

**Options:** 



Spanish Revolution in 1936



Russian Revolution in 1971



Serbian Revolution in 1804



French Revolution in 1789

 $Question\ Number: 135\ \ Question\ Id: 1185\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

Which salt of Calcium is Plaster of Paris?

**Options:** 



Calcium Sulphate



Calcium Oxide



Calcium Carbonate

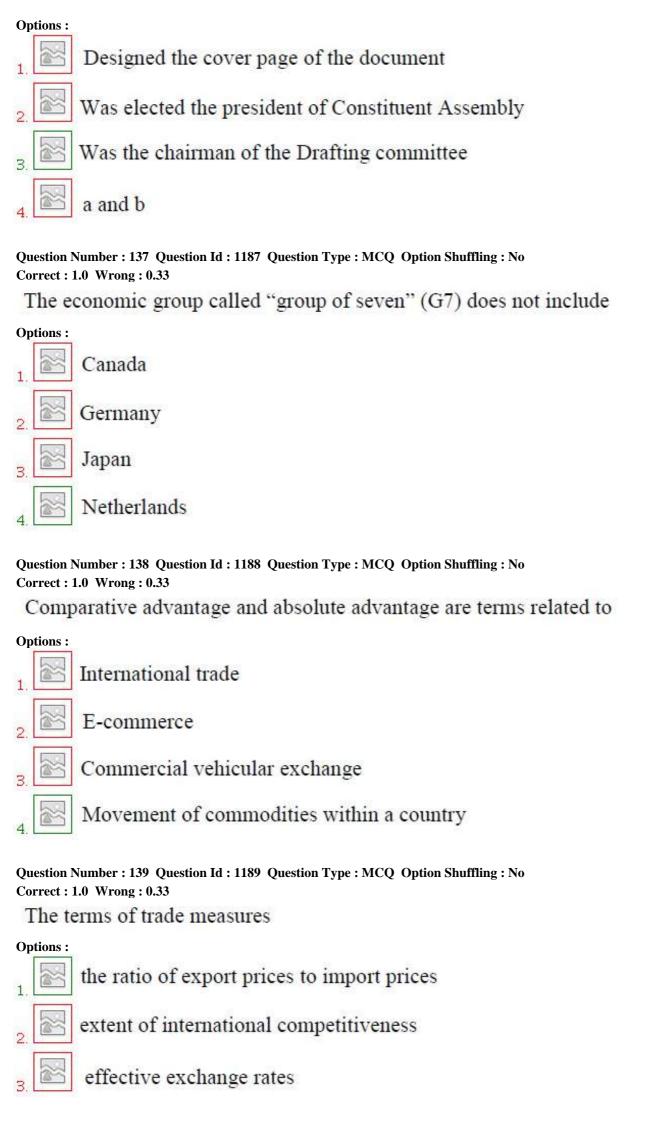


Calcium Hydroxide

 $Question\ Number: 136\ \ Question\ Id: 1186\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

**Correct : 1.0 Wrong : 0.33** 

Dr. Baba Saheb Bhimrao Ambedkar, is regarded as the architect of Indian constitution because, he



# Nominal exchange rates

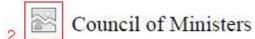
Question Number: 140 Question Id: 1190 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

The President of India can declare Emergency under Article 352 on the advice of:

## **Options:**









Question Number: 141 Question Id: 1191 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

A boy pointing to a photograph said, "His father is my father's brother." How is the person in the photograph related to the boy?

## **Options:**









Question Number: 142 Question Id: 1192 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.

35:16::53:?





Question Number: 143 Question Id: 1193 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

'Botany' is related to 'Plants' in the same way as 'Anthropology' is related to:

## **Options:**









Question Number: 144 Question Id: 1194 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

C is taller than B, who is shorter than D. D is taller than C, who is shorter than E.

D is shorter than E, who is taller than A.

Who is the tallest of all?

## **Options:**











 $Question\ Number: 145\ \ Question\ Id: 1195\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

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. Locality 2. State 3. Member 4. Village 5. Nation 6 Family

Question Number: 146 Question Id: 1196 Question Type: MCQ Option Shuffling: No

**Correct : 1.0 Wrong : 0.33** 

One term in the following number series is wrong. Find out the wrong term.

1097, 368, 125, 44, 16, 8, 5

### **Options:**











 $Question\ Number: 147\ \ Question\ Id: 1197\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

If SIT = 66 and ROW = 50, then HOPE will be equal to:

#### **Options:**









 $Question\ Number: 148\ \ Question\ Id: 1198\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

If 'HOSTILE' is coded as 'JMURKJG', then 'REQUEST' would be coded as:

## **Options:**









 $Question\ Number: 149\ \ Question\ Id: 1199\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$ 

Correct: 1.0 Wrong: 0.33

Shovan walked 5 km towards South-West, took a right turn and walked 3 km. Then he turned right again and walked 9 km. How far and in which direction is Shovan now with respect to his starting point?

## **Options:**



4 km North



5 km North



4 km North-East

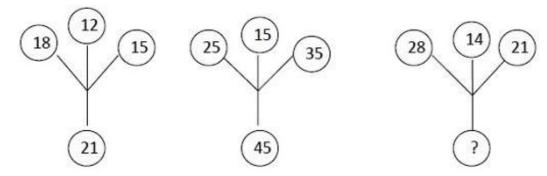


5 km North-East

Question Number: 150 Question Id: 1200 Question Type: MCQ Option Shuffling: No

Correct: 1.0 Wrong: 0.33

The numbers in the following figures follow a pattern. Which number would replace the question mark?



## **Options:**



25



42



35



49