

Railway Recruitment Board

Notations :

- Options shown in green color and with ✓ icon are correct.
- Options shown in red color and with ✘ icon are incorrect.

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

Group Number : 1
Group Id : 5
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Junior Engineer

Section Id : 5
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 150
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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 n

3. Conservation of mass
4. 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. Boyle's law
2. Charle's law
3. Gay-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. 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. Temperature
3. Entropy

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 :

- 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 :

- Electromagnetic waves
- Motion of electrons
- Mixing motion of the different layers of the gas
- Elastic 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 :

- Large electrode is used
- Welding rod coated with slag is used
- Welding rod coated with flux material is used
- 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 C_2H_2 is called

Options :

- Oxidizing flame
- Neutral flame
- Carburizing flame
- Red flame

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

Nose radius is expressed in

Options :

1. Degree
2. 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
4. 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
2. 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. Gate and sprue
2. Upper and drag
3. Cope and drag
4. 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 T_2 ; and another between T_2 and 400 K. For both the engines to be equally efficient, T_2 should be equal to

Options :

1. 600 K
2. 650 K
3. 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 :

1. 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

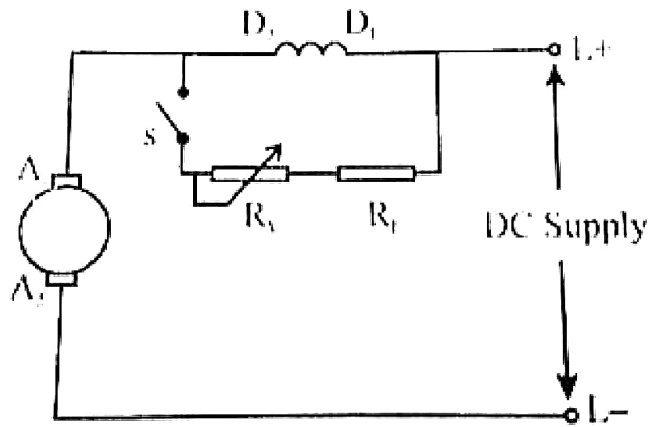
Options :

1. improper design of machine
2. low voltage supply
3. high load
4. 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 :

- Field diverter method
- Armature diverter method
- 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
- 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 :

- 1800 V
- 900 V
- 200 V
- 600 V

Question Number : 21 Question Id : 921 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

The shaded pole motor

- high starting torque
- 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 :

- De superheaters
- Economiser
- 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 :

- Goggles
- Vacuum cleaner
- Gloves
- 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 :

- increase voltage
- search the fault
- 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_2 is equal to decimal number

Options :

2. ✓ 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^2

3. ✘ 4N

4. ✓ 2^N

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. ✘ Tunnel diode

4. ✓ 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 :

1. ✘ is constant in forward direction

2. ✓ 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. ✔ Tunnel diode
3. ❌ Photodiode
4. ❌ 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
2. ❌ 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
3. ❌ 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 :


1. ❌ neither the video nor the audio signals
2. ❌ only the audio signals
3. ❌ both the video and audio signals
4. ✔ only the video

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 :

1. high temperature
2. electron streams
3.  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
3. Proportional limit
4. Endurance 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 :

1. Water content and voids ratio
2. Specific gravity and dry density
3. Water content and specific gravity
4. 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. 1.6 N/mm²
2. 1.9 N/mm²
3. 2.8 N/mm²
4. 2.2 N/mm²

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
2. The diameter of the tube only
3. The Reynold number
4. 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. 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
4. 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. Venturimeter
2. Pitot tube
3. 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
2. 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

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

Correct : 1.0 Wrong : 0.33

Percentage of carbon content in mild steel is

1. Less than 0.25
2. 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
3. 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
4. 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

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

2. 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 :

1. 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/l

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. 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. white to yellow
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. found maximum at mid and decreases either side
3. decreases with altitude
4. 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
3. Storage device

4. ❌ 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 :

1. ❌ Random access memory
2. ❌ Electrically erasable programmable read only memory
3. ❌ 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. ❌ 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 :

1. ❌ Extended Binary Coded Data Interchange Code
2. ❌ Expanded Binary Coded Decimal Interchange Code
3. ✔ Extended Binary Coded Decimal Interchange Code
4. ❌ Expanded Binary Coded Data Interchange 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 $(11111111)_2$ is

Options :

1. $(10000000)_2$

2. $(00000000)_2$

3. $(00000001)_2$

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. Unix

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 :

1. three consecutive units
2. two consecutive units
3. diagonal of square
4. 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
3. Side view
4. 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 :

1. perpendicular to both horizontal and vertical planes
2. parallel to horizontal plane and perpendicular to vertical plane
3. perpendicular to horizontal plane and parallel to vertical plane

4. parallel to both horizontal and vertical planes

Question Number : 71 Question Id : 971 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

For orthographic projections, BIS recommends the following projections.

Options :

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

Question Number : 72 Question Id : 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 :

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

Question Number : 73 Question Id : 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 :

1. a
2. $2a$
3. $4a$
4. $6a$.

Question Number : 74 Question Id : 974 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Let F_1 and F_2 be the force between two bodies separated by a distance d and $2d$ respectively. Then F_2 / F_1 is

Options :

1. 2

2. 1/2
3. 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. 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 $2f$ to produce sound waves in a school science laboratory. Let λ_A and λ_B represent the wavelength of waves produced by the sources A and B respectively. Then λ_B / λ_A is

Options :

1. 1
2. 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 :

1. Erect, virtual and enlarged
2. Erect, virtual and diminished
3. Inverted, real and enlarged
4. 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 :

- 10 W
- 20 W
- 40 W
- 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 :

- $\text{ZnCO}_3 \rightarrow \text{ZnO} + \text{CO}_2$
- $\text{ZnO} + \text{C} \rightarrow \text{Zn} + \text{CO}$
- $2\text{CuS} + \text{O}_2 \rightarrow 2\text{CuO} + 2\text{SO}_2$
- $\text{Cu} + \text{O}_2 \rightarrow 2\text{CuO}$

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 :

- AlSO_4
- $\text{Al}_3(\text{SO}_4)_2$
- $\text{Al}_2(\text{SO}_4)_3$
- $\text{Al}_2(\text{SO}_4)_3$

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
- a process of Reduction

Question Number : 82 Question Id : 982 Question Type : MCQ Option Shuffling : No
Correct : 1.0 Wrong : 0.33

Which one of the following set of elements is written in increasing order of their atomic radii?

Options :

1. K Na Li
2. Br F Cl
3. O F Cl
4. O N P

Question Number : 83 Question Id : 983 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which one of the following is an amphoteric oxide?

Options :

1. Na_2O
2. SO_3
3. Ag_2O
4. ZnO

Question Number : 84 Question Id : 984 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which reaction of an alcohol would produce a sweet smelling compound?

Options :

1. Esterification
2. Addition
3. Decomposition
4. Dehydration

Question Number : 85 Question Id : 985 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Which statement about viruses is not true?

Options :

1. Contain DNA
2. Are used for Genetic Engineering
3. Some cause diseases
4. Are living organisms

Question Number : 86 Question Id : 986 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

Options :

1. Left Ventricle
2. Left Atrium
3. Right Atrium
4. 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 :

1. 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 :

1. Gregor Johann Mendel
2. 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
2. 8 months 10 days
3. 280 days
4. 320 days

Question Number : 90 Question

After food is synthesized by the leaves of the plant, it reaches other parts of the plant through

Options :

1. Xylem
2. Phloem
3. cell to cell by osmosis
4. cell to cell by diffusion

Question Number : 91 Question Id : 991 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The HCF of two numbers is 12 and their LCM is 72. If one number is 48, the other number is

Options :

1. 18
2. 24
3. 36
4. Data is inconsistent

Question Number : 92 Question Id : 992 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

The largest number which divides by 125 and 187, leaving remainders 5 and 7 respectively is

Options :

1. 60
2. 30
3. 20
4. 10

Question Number : 93 Question Id : 993 Question Type : MCQ Option Shuffling : No

Correct : 1.0 Wrong : 0.33

If $a : b = 5 : 12$ and $b : c = 8 : 5$, then $a : c$ is

Options :

1. 3 : 2
2. 2 : 3
3. 1 : 1
4. 4 : 5

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
2. 30
3. 54
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. 40%
2. 44%
3. 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. 6
2. 8
3. 10
4. 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 :

1. ✔ $\frac{200}{11}\%$
2. ✖ $\frac{300}{11}\%$
3. ✖ $\frac{200}{13}\%$
4. ✖ $\frac{300}{13}\%$

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

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. ✔ 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. O and R in 12 days and R and P in

Options :

- 1. ✖ 70
- 2. ✖ 60
- 3. ✔ 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

Options :

- 1. ✔ 6
- 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
- 3. ✔ 29
- 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. ✔ -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

4. -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 :

1. 15 m

2. $10\sqrt{3}$ m

3. 30 m

4. $30\sqrt{3}$ m

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. $4\sqrt{3}$ m

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

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

4. $2\sqrt{3}$ 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 :

1. 2

2. -2

3. $\frac{10}{3}$

4. $-\frac{10}{3}$

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 :

2. ✖ $(11 - x)$

3. ✖ $(11x - 1)$

4. ✔ $22x$

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. ✔ $5 \leq k \leq -5$

2. ✖ $-5 \leq k \leq 5$

3. ✖ $k \geq 5$

4. ✖ $k \geq -5$

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 $x^2 - x - 4 = 0$ are respectively

Options :

1. ✖ 4, 1

2. ✖ 1, 4

3. ✖ -4, 1

4. ✔ 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. ✔ Cricket

4. ✖ 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

3. ❌ 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

4. ❌ 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 :

1. ❌ The plan was based on the Mahalanobis model of economic development, the architect of which was the Indian statistician PC Mahalanobis

2. ❌ The second five year plan was operational from 1956 -1961

3. ❌ The plan assumed a closed economy in which the main trading activity would be centered around importing capital goods

4. ✔ 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 Five Year Plan'?

Options :

1. ✓ The single European currency
2. ✘ The citizens of Europe
3. ✘ Name of a European T.V company
4. ✘ 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 :

1. ✘ 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 :

1. ✘ All adults who have completed 21 years of age have the right to participate in the electoral process
2. ✘ Candidate aspiring to be member of legislative assembly should at least be 25 years old
3. ✘ A girl cannot marry till she attains age of 18 and boy till he is 21
4. ✓ Any citizen of India 18 years of age or above can vote irrespective of race, caste, 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 :

1. ✘ Speed of light
2. ✘ Intensity of heat
3. ✓ Intensity of sound
4. ✘ Quantum of mass

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

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 :

- Velocity
- Speed
- Acceleration
- 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
- 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
- Radium & Uranium
- Sodium & Potassium
- 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 :

- biomass
- wind power
- 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 :

- Pascal
- Joule
- Calorie
- 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
- 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
- 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
- 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 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 :

1. Kidney transplant only
2. Dialysis only
3. Dialysis or Kidney Transplant
4. 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 :

1. Grass \rightarrow goat \leftarrow humans
2. Grass \leftarrow goat \leftarrow humans
3. Grass \rightarrow goat \rightarrow humans
4. Humans \rightarrow goat \rightarrow 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
2. Kidney cells
3. 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

Options :

1. Rain water containing nitrogenous compounds like ammonia
2. Rain water with pH 8
3. 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
- accounts with a debit card
 - Scheme of opening ATM banking for all accounts new and old
 - It has the facility of overdraft upto Rs. 5000/- for Aadhar Card linked accounts
 - 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
- commodity.
 - Every country has many cartels.
 - 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 :

- Price of goods at factory gate
- Price of a basket of goods and services
- 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 :

- Babar
- Humayun
- Shahjahan
- Akbar

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
2. 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
4. 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. 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.

1. Table 2. Plant 3. Study 4. Seed 5. Tree 6. Wood

Options :

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

(2 [8] 4) (7 [27] 10) (5 [?] 9)

Options :

1. 64
2. 55
3. 25
4. 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?

Options :

1. 3

3. ✖ 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 :

1. ✖ SBDQCH

2. ✖ CHQDBS

3. ✖ UDFSJE

4. ✔ SBDQHC

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?

3	5	7
6	15	28
18	60	?

Options :

1. ✖ 102

2. ✖ 112

3. ✔ 140

4. ✖ 196