



# Teachingninja.in



**Latest Govt Job updates**



**Private Job updates**



**Free Mock tests available**



**Visit - [teachingninja.in](https://teachingninja.in)**

# **LMRC JE**

**Previous Year Paper  
(S & T) 28 Jun 2015 Shift 2**



ImrcI

Lucknow Metro Rail Corporation Shift 2

Notations :

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

Question Paper Name: Junior Engineer Signalling and Telecommunication Actual Shift 2 Final  
Subject Name: Junior Engineer Signalling and Telecommunication  
Duration: 90

Group 1

Group Maximum Duration : 0  
Group Minimum Duration : 90  
Revisit allowed for view? : No  
Revisit allowed for edit? : No

Mandatory or Optional: Technical  
Mandatory

Question Number : 1 Question Type : MCQ  
Correct : 1 Wrong : 0.33  
Which of the following is a correct statement about P-type semiconductors?

- Options :
- 1. ✗ They are negatively charged.
  - 2. ✗ They are positively charged.
  - 3. ✓ They are neutral.
  - 4. ✗ Some are positive whereas some are negative.

Question Number : 2 Question Type : MCQ  
Correct : 1 Wrong : 0.33  
Forbidden energy gap in Silicon is:

- Options :
- 1. ✓ 1.1 eV
  - 2. ✗ 2.4 eV
  - 3. ✗ 0.72 eV
  - 4. ✗ 0.97 eV

Purest form of semiconductors are called:

Options :

1. ✓ Intrinsic
2. ✗ Extrinsic
3. ✗ Diodes
4. ✗ Transistor

Question Number : 4 Question Type : MCQ

Correct : 1 Wrong : 0.33

N-type semiconductors are formed by adding:

Options :

1. ✗ divalent impurities to pure semiconductor
2. ✗ trivalent impurities to pure semiconductor
3. ✗ tetravalent impurities to pure semiconductor
4. ✓ pentavalent impurities to pure semiconductor

Question Number : 5 Question Type : MCQ

Correct : 1 Wrong : 0.33

Zener diodes are used as:

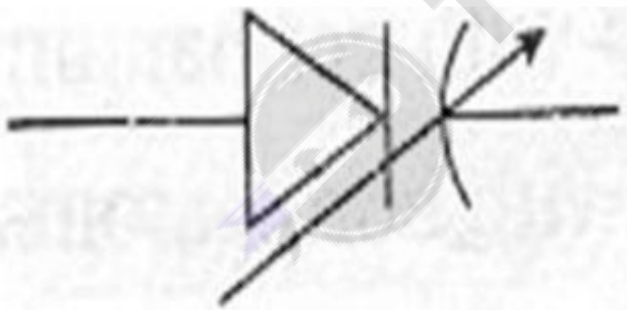
Options :

1. ✗ light emitter
2. ✗ light absorber
3. ✓ voltage regulator
4. ✗ microwave detector

Question Number : 6 Question Type : MCQ

Correct : 1 Wrong : 0.33

What does the diagram given below depict?



Options :

1. ✗ L.E.D.
2. ✗ Zener diode
3. ✗ Tunnel diode
4. ✓ Varactor diode

Question Number : 7 Question Type : MCQ

Correct : 1 Wrong : 0.33

The energy of a photon of light whose wavelength is 620 nm equals the band gap of a semiconducting material. What is the minimum energy required to create a hole electron pair?

Options :

1. ☒ 2 eV
2. ☐ 0.72 eV
3. ☐ 0.125 eV
4. ☐ 0.5 eV

Question Number : 8 Question Type : MCQ

Correct : 1 Wrong : 0.33

If a small amount of phosphorus is added to germanium, then:

Options :

1. ☐ the conductivity decreases
2. ☐ silicon becomes a P-type semiconductor
3. ☐ phosphorus becomes an acceptor impurity
4. ☒ there will be more free electrons than holes in semiconductor

Question Number : 9 Question Type : MCQ

Correct : 1 Wrong : 0.33

An intrinsic semiconductor at 0 K behaves as:

Options :

1. ☐ a semiconductor
2. ☒ an insulator
3. ☐ a conductor
4. ☐ a superconductor

Question Number : 10 Question Type : MCQ

Correct : 1 Wrong : 0.33

Merging of a free electron and a hole is called:

Options :

1. ☒ Recombination
2. ☐ Neutralization
3. ☐ Restriking
4. ☐ Zeroing

Question Number : 11 Question Type : MCQ

Correct : 1 Wrong : 0.33

A passive network contains

Options :

1. ☐ 1 source of emf
2. ☐ 2 sources of emf
3. ☐ 3 sources of emf
4. ☒ no source of emf

Question Number : 12 Question Type : MCQ

Correct : 1 Wrong : 0.33

Barrier potential of a p-n junction diode does not depend upon

Options :

1. ☐ temperature

2. ✖ forward bias
3. ✖ doping density
4. ✔ diode design

**Question Number : 13 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

Superposition Theorem is based on the concept of:

**Options :**

1. ✖ Reciprocity
2. ✖ Duality
3. ✖ Non-linearity
4. ✔ Linearity

**Question Number : 14 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

Kirchoff's law is applicable to

**Options :**

1. ✖ Passive networks only
2. ✖ Active networks only
3. ✖ D.C. only
4. ✔ Both A.C. and D.C.

**Question Number : 15 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

Higher the Q of a series circuit:

**Options :**

1. ✖ broader its resonance curve
2. ✔ narrower its pass band
3. ✖ greater its band width
4. ✖ sharper its resonance

**Question Number : 16 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

The peak value of a sine wave is 100 V. Its average value is:

**Options :**

1. ✖ 100 V
2. ✖ 50.5 V
3. ✔ 63.6 V
4. ✖ 74.7 V

**Question Number : 17 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

A resonance curve for a series circuit is a plot of frequency versus

**Options :**

1. ✔ Current
2. ✖ Voltage

3. ✖ Impedance
4. ✖ Reactance

**Question Number : 18 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

Power factor of an electric bulb is

**Options :**

1. ✖ Lagging
2. ✖ Leading
3. ✖ Infinity
4. ✔ Unity

**Question Number : 19 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

Which of the following is a non linear circuit parameter?

**Options :**

1. ✔ Inductance
2. ✖ Condenser
3. ✖ Wire wound resistor
4. ✖ Transistor

**Question Number : 20 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

The circuit whose properties are the same in either directions is known as

**Options :**

1. ✖ Unilateral circuit
2. ✔ Bilateral circuit
3. ✖ Reversible circuit
4. ✖ Irreversible circuit

**Question Number : 21 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

The purpose of parallel circuit resonance is to magnify

**Options :**

1. ✖ Current
2. ✔ Voltage
3. ✖ Power
4. ✖ Frequency

**Question Number : 22 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

The shunt combination in band pass filter is

**Options :**

1. ✖ Capacitive
2. ✖ Inductive
3. ✔ Parallel combination of L and C

4. ✖ Series combination of L and C

Question Number : 23 Question Type : MCQ

Correct : 1 Wrong : 0.33

The dual of a link is

Options :

1. ✖ Twig
2. ✖ Node
3. ✖ Loop
4. ✔ Tree branch

Question Number : 24 Question Type : MCQ

Correct : 1 Wrong : 0.33

At half power frequency, power drawn in the circuit is:

Options :

1. ✖  $I^2R$
2. ✔  $\frac{1}{2}I^2R$
3. ✖  $\frac{1}{2}IR^2$
4. ✖  $IR^2$

Question Number : 25 Question Type : MCQ

Correct : 1 Wrong : 0.33

According to star connected system, the line voltage in a 3-phase circuit is

Options :

1. ✔ 1.732 times the phase voltage
2. ✖ 1.414 times the phase voltage
3. ✖ 2.05 times the phase voltage
4. ✖ equal to the phase voltage

Question Number : 26 Question Type : MCQ

Correct : 1 Wrong : 0.33

The sum of two wattmeter readings in a 3-phase circuit gives:

Options :

1. ✖ total resistance in the circuit
2. ✖ total voltage drop in the circuit
3. ✔ total power in the circuit
4. ✖ total current in the circuit

Question Number : 27 Question Type : MCQ

Correct : 1 Wrong : 0.33

In a series R-L-C circuit, impedance at resonance is

Options :

1. ✖ Unity
2. ✖ Maximum



- 3. ✖ Infinity
- 4. ✔ Minimum

Question Number : 28 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following statements is correct about resonance in parallel circuits?

Options :

- 1. ✖ Admittance of circuit is maximum.
- 2. ✖ Current drawn is maximum.
- 3. ✖ Phase angle between current and voltage is a right angle.
- 4. ✔ Power factor is unity.

Question Number : 29 Question Type : MCQ

Correct : 1 Wrong : 0.33

In a parallel resonant circuit, effective impedance is given by:

Options :

- 1. ✖  $R$
- 2. ✖  $\frac{L}{C}$
- 3. ✔  $\frac{L}{CR}$
- 4. ✖  $\frac{R}{LC}$

Question Number : 30 Question Type : MCQ

Correct : 1 Wrong : 0.33

A coil with large distributed capacitance has a

Options :

- 1. ✔ High resonant frequency
- 2. ✖ low resonant frequency
- 3. ✖ low quality factor
- 4. ✖ low resistance

Question Number : 31 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following does not measure self inductance?

Options :

- 1. ✖ Maxwell's bridge
- 2. ✔ Kelvin's double bridge
- 3. ✖ Hay's bridge
- 4. ✖ Owen's bridge

Question Number : 32 Question Type : MCQ

Correct : 1 Wrong : 0.33

Attractive type and repulsive type are two types of

Options :

1. ✖ Rectifiers
2. ✖ Moving coil instruments
3. ✔ Moving iron instruments
4. ✖ Energy meters

Question Number : 33 Question Type : MCQ

Correct : 1 Wrong : 0.33

Method of control in a thermocouple is

Options :

1. ✖ Hair spring
2. ✔ Moving coil
3. ✖ Eddy currents
4. ✖ Air

Question Number : 34 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following bridges is used to measure high frequency oscillations?

Options :

1. ✖ Maxwell's bridge
2. ✖ Hay's bridge
3. ✔ Wein's bridge
4. ✖ Anderson's bridge

Question Number : 35 Question Type : MCQ

Correct : 1 Wrong : 0.33

A measure of reproducibility of measurements is called

Options :

1. ✖ Resolution
2. ✖ Reproduction
3. ✖ Accuracy
4. ✔ Precision

Question Number : 36 Question Type : MCQ

Correct : 1 Wrong : 0.33

Dynamometer is likely to have

Options :

1. ✔ Air damping
2. ✖ Eddy current damping
3. ✖ Fluid friction damping
4. ✖ Moving coil damping

Question Number : 37 Question Type : MCQ

Correct : 1 Wrong : 0.33

A piezoelectric pick-up is a transducer of the type

Options :

1. ✖ Variable resistance

2. ✖ Variable inductance
3. ✔ Voltage generating
4. ✖ Voltage divider

Question Number : 38 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following does not result in conditioning of signal?

Options :



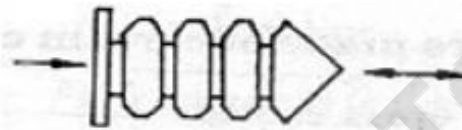

1. ✖ Signal converter
2. ✔ Amplifier
3. ✖ Equalizing network
4. ✖ Damping network

Question Number : 39 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following represents Bellows?

Options :

1. ✖ 
2. ✖ 
3. ✔ 
4. ✖ 

Question Number : 40 Question Type : MCQ

Correct : 1 Wrong : 0.33

Temperature coefficient of a thermistor is:

Options :

1. ✖ low and positive
2. ✖ high and positive
3. ✖ low and negative
4. ✔ high and negative

Question Number : 41 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following is a digital transducer?

Options :

1. ☒ Encoder
2. ☐ Photovoltaic
3. ☐ Thermocouple
4. ☐ Piezoelectric transducer

Question Number : 42 Question Type : MCQ

Correct : 1 Wrong : 0.33

LVDTs give output in the form of

Options :

1. ☐ rotary movement of core
2. ☐ pulses
3. ☐ high frequency signals
4. ☒ linear displacement of core

Question Number : 43 Question Type : MCQ

Correct : 1 Wrong : 0.33

A multimeter consists of:

Options :

1. ☐ voltmeter and current meter
2. ☐ voltmeter and ohm meter
3. ☐ current meter and ohm meter
4. ☒ voltmeter, current meter and ohm meter

Question Number : 44 Question Type : MCQ

Correct : 1 Wrong : 0.33

Transducers are not known as:

Options :

1. ☐ Gauges
2. ☒ Transistors
3. ☐ Pickups
4. ☐ Signal generators

Question Number : 45 Question Type : MCQ

Correct : 1 Wrong : 0.33

In self generating type transducers, voltage is generated because of

Options :

1. ☒ relative motion between conductor and magnetic field
2. ☐ change in electric field
3. ☐ motion of charges
4. ☐ residual magnetism

Question Number : 46 Question Type : MCQ

Correct : 1 Wrong : 0.33

Transducers that make use of a variable core are referred to as

Options :

1. ☐ Reluctance type

- 2. ✓ Permeance type
- 3. ✗ Resistance type
- 4. ✗ Inductance type

Question Number : 47 Question Type : MCQ

Correct : 1 Wrong : 0.33

In LVDT when the core is in the centre, the induced voltages are:

Options :

- 1. ✗ equal and in the same direction
- 2. ✗ unequal but in the same direction
- 3. ✓ equal and opposite
- 4. ✗ unequal and opposite

Question Number : 48 Question Type : MCQ

Correct : 1 Wrong : 0.33

What does the following figure represent?



Options :

- 1. ✗ Capacitive transducer
- 2. ✗ Strain gauge
- 3. ✓ Piezoelectric transducer
- 4. ✗ LVDT

Question Number : 49 Question Type : MCQ

Correct : 1 Wrong : 0.33

Semiconductor strain gauges are used where:

Options :

- 1. ✓ high gauge factor is required
- 2. ✗ low gauge factor is required
- 3. ✗ large envelopes are required
- 4. ✗ gauge factor is not required

Question Number : 50 Question Type : MCQ

Correct : 1 Wrong : 0.33

When measurement provides impulse for remote automatic action, then the result is called:

Options :

- 1. ✗ Process electronics
- 2. ✓ Control system

- 3. ✖ Sensing
- 4. ✖ Conversion

Question Number : 51 Question Type : MCQ

Correct : 1 Wrong : 0.33

For converting a number in decimal number system to its binary equivalent, remainders are recorded after successive division of the number by

Options :

- 1. ✔ 2
- 2. ✖ 10
- 3. ✖ 8
- 4. ✖ 16

Question Number : 52 Question Type : MCQ

Correct : 1 Wrong : 0.33

The decimal equivalent of  $(404011)_2$  is:

Options :

- 1. ✖ 48
- 2. ✖ 54
- 3. ✖ 44
- 4. ✔ 43

Question Number : 53 Question Type : MCQ

Correct : 1 Wrong : 0.33

" $A + (B + C) = (A + B) + C$ " is

Options :

- 1. ✔ Associative law
- 2. ✖ Distributive law
- 3. ✖ Commutative law
- 4. ✖ Absorption law

Question Number : 54 Question Type : MCQ

Correct : 1 Wrong : 0.33

On multiplying  $(4011)_2$  by  $(1401)_2$ , we get:

Options :

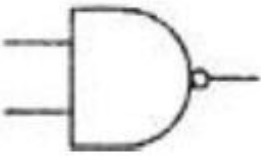
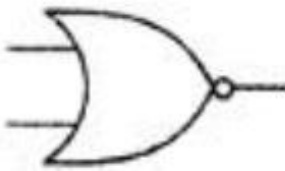
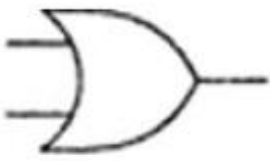
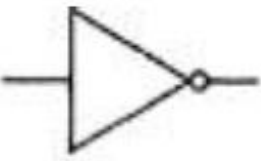
- 1. ✖ 40001400
- 2. ✔ 40001111
- 3. ✖ 40001140
- 4. ✖ 40004011

Question Number : 55 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following refers to NOR gate?

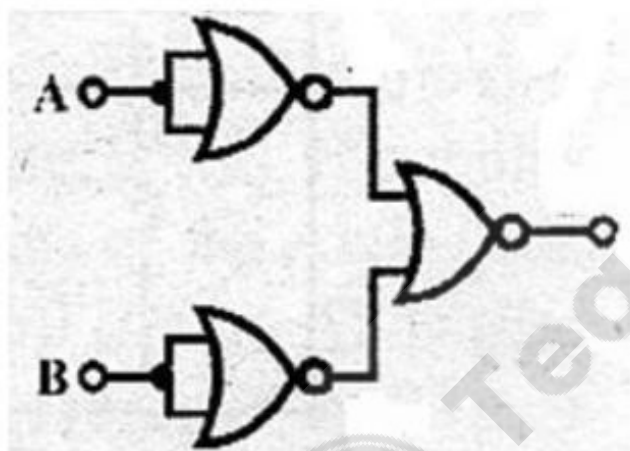
Options :

1. ✖ 
2. ✔ 
3. ✖ 
4. ✖ 

Question Number : 56 Question Type : MCQ

Correct : 1 Wrong : 0.33

Consider the figure below.



The figure is an electric equivalent of:

Options :

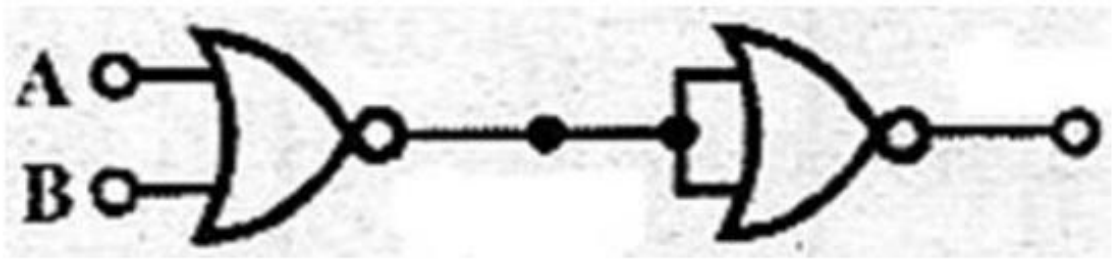
1. ✖ NAND gate
2. ✖ XOR gate
3. ✔ AND gate
4. ✖ OR gate

Question Number : 57 Question Type : MCQ

Correct : 1 Wrong : 0.33



What is the output of the figure given below?



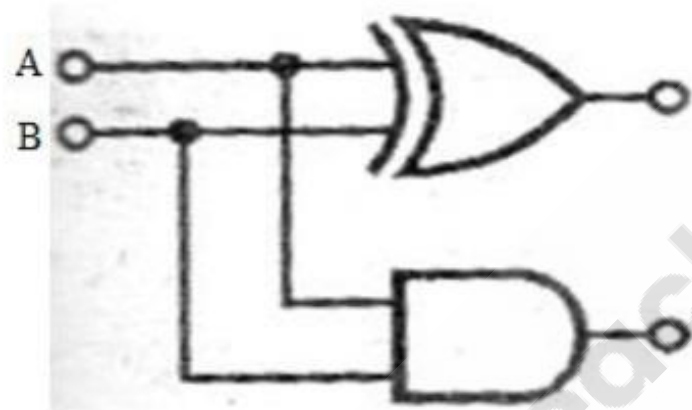
Options :

- 1. ✖  $A \cdot B$
- 2. ✔  $A + B$
- 3. ✖  $(A + B) \cdot B$
- 4. ✖  $(A \cdot B) \cdot A$

Question Number : 58 Question Type : MCQ

Correct : 1 Wrong : 0.33

The following picture is a logical diagram of:



Options :

- 1. ✖ Full adder
- 2. ✖ Full subtractor
- 3. ✔ Half adder
- 4. ✖ Half subtractor

Question Number : 59 Question Type : MCQ

Correct : 1 Wrong : 0.33

According to algebra logic,  $(A + A')$  generates:

Options :

- 1. ✖ 0
- 2. ✔ 1
- 3. ✖ A
- 4. ✖  $A + A'$

Question Number : 60 Question Type : MCQ

Correct : 1 Wrong : 0.33

In general, which of the following flip flops are used as shift registers?



Options :

1. ✖ D
2. ✔ JK
3. ✖ SR
4. ✖ T

Question Number : 61 Question Type : MCQ

Correct : 1 Wrong : 0.33

A full adder consists of:

Options :

1. ✖ two inputs and one output
2. ✖ one input and two outputs
3. ✔ three inputs and two outputs
4. ✖ two inputs and three outputs

Question Number : 62 Question Type : MCQ

Correct : 1 Wrong : 0.33

The flip flop circuit is:

Options :

1. ✖ unstable
2. ✖ multistable
3. ✖ monostable
4. ✔ bistable

Question Number : 63 Question Type : MCQ

Correct : 1 Wrong : 0.33

Octal coding involves grouping of bits in

Options :

1. ✔ 3's
2. ✖ 4's
3. ✖ 5's
4. ✖ 6's

Question Number : 64 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following is the fastest unsaturated logic gate?

Options :

1. ✖ RTL
2. ✖ HTL
3. ✖ TTL
4. ✔ ECL

Question Number : 65 Question Type : MCQ

Correct : 1 Wrong : 0.33

The range of output voltage when circuit changes from 1 state to another is:

Options :

1. ✖ 0.1-0.5 ns

- 2. ✓ 0.5-50 ns
- 3. ✗ 50-400 ns
- 4. ✗ 0.5-5.0 ns

Question Number : 66 Question Type : MCQ

Correct : 1 Wrong : 0.33

As compared to parallel adder, serial adder:

Options :

- 1. ✓ is less faster
- 2. ✗ needs more components
- 3. ✗ uses registers with parallel load
- 4. ✗ is a combinational circuit

Question Number : 67 Question Type : MCQ

Correct : 1 Wrong : 0.33

Look ahead carry generators have

Options :

- 1. ✓ low propagation delay time
- 2. ✗ high propagation delay time
- 3. ✗ no additional circuitry
- 4. ✗ speed dependent on number of bits

Question Number : 68 Question Type : MCQ

Correct : 1 Wrong : 0.33

A decoder is a:

Options :

- 1. ✗ synchronous circuit
- 2. ✓ combinational circuit
- 3. ✗ sequential circuit
- 4. ✗ digital circuit

Question Number : 69 Question Type : MCQ

Correct : 1 Wrong : 0.33

A multiplexer is a logic circuit that gets

Options :

- 1. ✗ single input to several outputs
- 2. ✗ single input to single output
- 3. ✓ several inputs to single output
- 4. ✗ several inputs to no output

Question Number : 70 Question Type : MCQ

Correct : 1 Wrong : 0.33

Race condition always arise in

Options :

- 1. ✗ digital circuits
- 2. ✗ synchronous circuits

- 3. ✓ asynchronous circuits
- 4. ✗ combinational circuits

Question Number : 71 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following instruments present signal wave forms visually?

Options :

- 1. ✓ C.R.O
- 2. ✗ Wattmeter
- 3. ✗ Thermocouple
- 4. ✗ L.V.D.T

Question Number : 72 Question Type : MCQ

Correct : 1 Wrong : 0.33

Direct measurement of pressure can be done using

Options :

- 1. ✗ Rota meter
- 2. ✓ Borden tube
- 3. ✗ LVDT
- 4. ✗ Strain gauge

Question Number : 73 Question Type : MCQ

Correct : 1 Wrong : 0.33

At the resonant frequency in LC circuit,

Options :

- 1. ✓ current is maximum
- 2. ✗ current is minimum
- 3. ✗ impedance is maximum
- 4. ✗ voltage across C is minimum

Question Number : 74 Question Type : MCQ

Correct : 1 Wrong : 0.33

Form factor is the ratio of

Options :

- 1. ✗ average value to rms value
- 2. ✓ rms value to average value
- 3. ✗ average value to peak value
- 4. ✗ rms value to peak value

Question Number : 75 Question Type : MCQ

Correct : 1 Wrong : 0.33

Free electrons exist in

Options :

- 1. ✗ Valence band
- 2. ✓ Conduction band
- 3. ✗ Free band

4. ✖ Excited band

Numerical and logical Reasoning questions

Mandatory or Optional:

Mandatory

Question Number : 76 Question Type : MCQ

Correct : 1 Wrong : 0.33

Find out the word-pair in which the two words hold the same relationship as the two words in the word-pair given below.

Orange : Apple

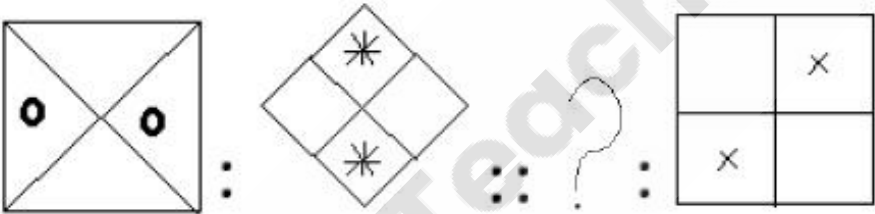
Options :

- 1. ✖ House : Family
- 2. ✖ Pen : Ink
- 3. ✖ Tree : Flower
- 4. ✔ Table : Chair

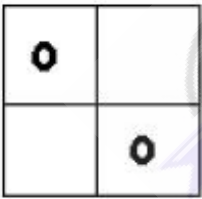
Question Number : 77 Question Type : MCQ

Correct : 1 Wrong : 0.33

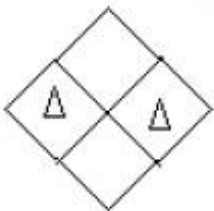
The first two figures on the left side of the sign ‘::’ are related in a certain way. The same relationship holds for the second pair of figures on the right side of the sign ‘::’, of which one is missing. Which of the following is the missing one?



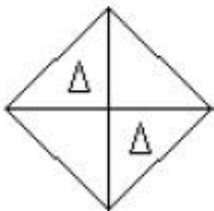
Options :



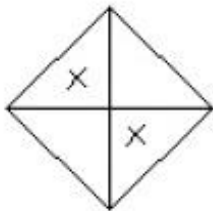
1. ✖



2. ✖



3. ✔



4. ✖

Question Number : 78 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which number will replace the question mark in the number series below?

3, 4, 13, 38, ?, 168

Options :

1. ✖ 63

2. ✔ 87

3. ✖ 77

4. ✖ 102

Question Number : 79 Question Type : MCQ

Correct : 1 Wrong : 0.33

If 12% of 40% of  $X = 84$ , then what is the value of  $X$ ?

Options :

1. ✖ 1600

2. ✖ 1680

3. ✔ 1750

4. ✖ 1860

Question Number : 80 Question Type : MCQ

Correct : 1 Wrong : 0.33

P is the brother of Q and son of R. V is the sister of T, who is the daughter of Q. If R is the husband of S, then which of the following is true?

Options :

1. ✔ V is the granddaughter of S

2. ✖ R is the grandfather of Q

3. ✖ S is the mother of T

4. ✖ V is the nephew of P

Question Number : 81 Question Type : MCQ

Correct : 1 Wrong : 0.33

Four months are given below out of which three are alike in some manner and one is different. Which of the given months is different from the other three?

Options :

1. ✖ October

2. ✖ January

3. ✔ June





4. ✖ December

Question Number : 82 Question Type : MCQ

Correct : 1 Wrong : 0.33

Four figures are given below out of which three are similar in a certain way and one is different. Which is of the given figures is different from the other three?

Options :

1. ✖ 
2. ✔ 
3. ✖ 
4. ✖ 

Question Number : 83 Question Type : MCQ

Correct : 1 Wrong : 0.33

If '+' means '÷', '÷' means '-', '-' means '×' and '×' means '+', then

$$(12 + 4 \times 2) \times 6 - 4 \div 2 = ?$$

Options :

1. ✔ 27
2. ✖ 24
3. ✖ 17
4. ✖ 14

Question Number : 84 Question Type : MCQ

Correct : 1 Wrong : 0.33

If 'DAUGHTER' is coded as 'SFUIHVBE' in a certain language, then how would 'PROBLEM' be coded as in the same language?

Options :

1. ✖ LDKANQO
2. ✔ NFMCP SQ
3. ✖ QSPCMFN
4. ✖ NFM CSPQ

Question Number : 85 Question Type : MCQ

Correct : 1 Wrong : 0.33

Each of the following two rows contains 3 numbers. Some rules are given below to be used for getting the resultant for each row separately. Apply the rules for each row from left to right and answer the question.

*Rules:*

- (i) If an even number is followed by an odd but not prime number, both are to be multiplied.
- (ii) If an even number is followed by a prime number, both are to be added.
- (iii) If an odd number is followed by a composite odd number, the first number is to be subtracted from the square of the second number.
- (iv) If an odd number is followed by an even number, the odd one is to be subtracted from the even number.

Row I: 16, 9, 23

Row II: 13, 38, 25

What is the difference between the resultants of the first row and the second row?

Options :

- 1. ✖ 193
- 2. ✖ 26
- 3. ✖ 767
- 4. ✔ 433

Computer Applications

Mandatory or Optional:

Mandatory

Question Number : 86 Question Type : MCQ

Correct : 1 Wrong : 0.33

The operating system for mobile phones developed by Google is:

Options :

- 1. ✖ Amoeba
- 2. ✖ Magellan
- 3. ✔ Android
- 4. ✖ Ubuntu

Question Number : 87 Question Type : MCQ

Correct : 1 Wrong : 0.33

The CPU of a computer consists of:

Options :

- 1. ✔ ALU, control unit and registers
- 2. ✖ ALU and control unit
- 3. ✖ ALU, control unit and hard disk
- 4. ✖ ALU, control unit and monitor



Question Number : 88 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which of the following is both an input and an output device?

Options :

1. ✖ Touch screen
2. ✖ LCD projector panel
3. ✖ Audio cards
4. ✔ Modem

Question Number : 89 Question Type : MCQ

Correct : 1 Wrong : 0.33

A program in execution is called:

Options :

1. ✔ Process
2. ✖ Instruction
3. ✖ Procedure
4. ✖ Function

Question Number : 90 Question Type : MCQ

Correct : 1 Wrong : 0.33

Criterion used for judging appropriateness of tool software is:

Options :

1. ✖ Scalability
2. ✖ Compatibility
3. ✔ Functionality
4. ✖ Security

Question Number : 91 Question Type : MCQ

Correct : 1 Wrong : 0.33

Which one of the following decimal number is equivalent to  $(10000010)_2$ ?

Options :

1. ✔  $130_{10}$
2. ✖  $200_{10}$
3. ✖  $1010_{10}$
4. ✖  $304_{10}$

Question Number : 92 Question Type : MCQ

Correct : 1 Wrong : 0.33

In a spreadsheet, one function inside another is called:

Options :

1. ✖ Text
2. ✔ Nested
3. ✖ Sum
4. ✖ Round



Question Number : 93 Question Type : MCQ  
Correct : 1 Wrong : 0.33  
Which of the following is not a part of the Office Suite?

- Options :
- 1. ✖ Database
  - 2. ✖ Image editor
  - 3. ✔ File manager
  - 4. ✖ Word processor

Question Number : 94 Question Type : MCQ  
Correct : 1 Wrong : 0.33  
Which of the following is not a Search Engine?

- Options :
- 1. ✖ Yahoo
  - 2. ✖ Alta Vista
  - 3. ✖ Google
  - 4. ✔ Facebook

Question Number : 95 Question Type : MCQ  
Correct : 1 Wrong : 0.33  
A shared network within an organisation to provide connectivity to the staff is called:

- Options :
- 1. ✖ Internet
  - 2. ✔ Intranet
  - 3. ✖ Delnet
  - 4. ✖ Extranet

GK / Awareness  
Mandatory

Mandatory or Optional:

Question Number : 96 Question Type : MCQ  
Correct : 1 Wrong : 0.33  
Which Mughal ruler was on the throne of India when East India company was permitted to establish a factory at Surat?

- Options :
- 1. ✖ Aurangzeb
  - 2. ✖ Humayun
  - 3. ✔ Jehangir
  - 4. ✖ Shahjahan

Question Number : 97 Question Type : MCQ  
Correct : 1 Wrong : 0.33  
Who advises the centre on legal matters?

- Options :
- 1. ✖ Advocate General of india

2. ✖ President of India
3. ✔ Attorney General of India
4. ✖ Chief Justice of India

**Question Number : 98 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

Which of the following payment instruments is known as plastic money?

**Options :**

1. ✖ Bearer Cheques
2. ✖ Gift Cheques
3. ✖ Demand Drafts
4. ✔ Credit Cards

**Question Number : 99 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

EEG is taken out for diagnosing ailments of which of the following?

**Options :**

1. ✔ Brain
2. ✖ Heart
3. ✖ Lungs
4. ✖ Stomach

**Question Number : 100 Question Type : MCQ**

**Correct : 1 Wrong : 0.33**

Prime Minister Narendra Modi has recently launched the "Give It Up" Campaign for voluntarily giving up which of the following?

**Options :**

1. ✖ Drugs
2. ✖ Plastics
3. ✖ Ration
4. ✔ LPG Subsidy

