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# **UPMRC JE**

## **Previous Year Paper**

### **Electrical 03 Jan 2023**

### **Shift 1**





# Uttar Pradesh Metro Rail Corporation Limited

## उत्तर प्रदेश मेट्रो रेल कॉर्पोरेशन लिमिटेड

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Participant ID	
Participant Name	
Test Center Name	
Test Date	03/01/2023
Test Time	9:00 AM - 11:00 AM
Subject	Jr Engineer Electrical

### Section : Domain Knowledge

**Q.1 What is the power consumed by a bulb when it is applied 220 V and current flowing through it is 2.2 A?**

Ans  A. 42.2 W  
 B. 0.484 KW  
 C. 100 W  
 D. 0.422 MW

Question ID : 486324845

Status : Answered

Chosen Option : B

**Q.2 Which is correct for induction motor?**

Ans  A. Incorrect registration even at very low power factor  
 B. Difficulty in operation  
 C. Cheap in cost  
 D. Affected by temperature variation

Question ID : 486324918

Status : Answered

Chosen Option : C

**Q.3 When decreasing the load factor from 100% to 50%, then fixed charges/kWh have \_\_\_\_\_**

Ans  A. Increased single-fold.  
 B. Increased two-fold.  
 C. Decrease single-fold.  
 D. Decrease two-fold.

Question ID : 486324886

Status : Answered

Chosen Option : B

Q.4 Electron-Volt (eV) is the unit of \_\_\_\_.

Ans  A. electric potential  
 B. electric power  
 C. electric energy  
 D. electric force

Question ID : 486324846

Status : Answered

Chosen Option : C

Q.5 What energy is produced by a 9 V battery that moves the charge 15 coulombs around the circuit?

Ans  A. 1.4 joule  
 B. 270 joule  
 C. 135 joule  
 D. 25.6 joule

Question ID : 486324844

Status : Answered

Chosen Option : C

Q.6 Which of the following types of error CANNOT be produced in bridge measurement system?

Ans  A. Leakage error  
 B. Turns ratio error  
 C. Eddy current error  
 D. Frequency and wave form error

Question ID : 486324920

Status : Answered

Chosen Option : D

Q.7 In silicon, how many electrons exist in the energy gap?

Ans  A. Four  
 B. Eight  
 C. Zero  
 D. Two

Question ID : 486324892

Status : Answered

Chosen Option : C

Q.8 The product of normal system voltage and short circuit current of the fault is called \_\_\_\_.

Ans  A. short circuit power  
 B. short circuit KVA  
 C. open circuit KVA  
 D. open circuit power

Question ID : 486324879

Status : Answered

Chosen Option : B

Q.9 An 11000/110 V, 50 Hz, single-phase transformer has an exciting current of 0.8 A and a core loss of 440 watts when its h. v. side is energized at rated voltage. The core loss component of the existing current is:

Ans  A. 0.08 A  
 B. 0.02 A  
 C. 0.04 A  
 D. 0.06 A

Question ID : 486324860

Status : Not Answered

Chosen Option : --

Q.10 Which type of materials is very useful in electrical engineering for the transmission and distribution of electrical energy?

Ans  A. High resistivity or high conductivity  
 B. Low resistivity or low conductivity  
 C. Low resistivity or high conductivity  
 D. High resistivity or low conductivity

Question ID : 486324907

Status : Answered

Chosen Option : C

Q.11 The number system having the largest base is the \_\_\_\_\_ number system.

Ans  A. binary  
 B. hexadecimal  
 C. decimal  
 D. octal

Question ID : 486324926

Status : Answered

Chosen Option : B

Q.12 Which of the following defines the unit of electric power?

Ans  A. Newton-meter  
 B. Volt-ampere  
 C. Joule/meter  
 D. Watt-second

Question ID : 486324847

Status : Answered

Chosen Option : B

Q.13 Which type of method is used only to measure the power of a single-phase system?

Ans  A. Polyphase wattmeter  
 B. Three wattmeter method  
 C. One wattmeter method  
 D. Two wattmeter method

Question ID : 486324916

Status : Answered

Chosen Option : C

Q.14 In a control system, reference input is the \_\_\_\_\_ value of the controlled variable.

Ans  A. desired  
 B. minimum  
 C. random  
 D. maximum

Question ID : 486324897

Status : Answered

Chosen Option : A

Q.15 Which of the following applications of CRO is INCORRECT?

Ans  A. In radar  
 B. Measuring the current and voltage of AC  
 C. Measuring the mutual induction  
 D. Comparison of phase and frequency

Question ID : 486324922

Status : Answered

Chosen Option : C

Q.16 In a control system, the controlled output is usually indicated by a notation \_\_\_\_\_.

Ans  A.  $b(t)$   
 B.  $r(t)$   
 C.  $c(t)$   
 D.  $e(t)$

Question ID : 486324898

Status : Answered

Chosen Option : C

Q.17 Which type of meter gives the response for AC only?

Ans  A. Thermocouple  
 B. Rectifier  
 C. Electrostatic  
 D. Moving coil

Question ID : 486324851

Status : Answered

Chosen Option : A

Q.18 In case of full wave bridge rectifiers, maximum efficiency is \_\_\_\_\_ and ripple factor is \_\_\_\_\_.

Ans  A. 40.6%, 0.48  
 B. 40.6%, 1.21  
 C. 81.2%, 0.48  
 D. 81.2%, 1.21

Question ID : 486324896

Status : Answered

Chosen Option : C

Q.19 If supply frequency in a transformer is doubled by keeping V/f ratio constant.

Ans  A. Core losses increase  
 B. Maximum flux density decreases  
 C. Eddy current loss decreases  
 D. Hysteresis loss decreases

Question ID : 486324873

Status : Answered

Chosen Option : A

Q.20 Which type of error is produced by induction type of watt meter when it does NOT read correctly at all power factors?

Ans  A. Frictional error  
 B. Creeping  
 C. Speed error  
 D. Phasor error

Question ID : 486324923

Status : Answered

Chosen Option : D

Q.21 The portion of the system that is to be controlled or regulated is known as \_\_\_\_\_.

Ans  A. feedback  
 B. comparator  
 C. plant  
 D. reference

Question ID : 486324899

Status : Answered

Chosen Option : D

Q.22 Which is defined as changes in charge with respect to time in a conductor?

Ans  A. Electric current  
 B. Electric voltage  
 C. Charge density  
 D. Electric static field

Question ID : 486324842

Status : Answered

Chosen Option : A

Q.23 In pure silicon if \_\_\_\_\_ is added, n-type semiconductor results.

Ans  A. gallium  
 B. indium  
 C. arsenic  
 D. aluminium

Question ID : 486324890

Status : Answered

Chosen Option : C

**Q.24** The maximum efficiency of a single-phase transformer for a constant load current occurs at:

Ans  A. unity power factor  
 B. 0.6 lagging power factor  
 C. 0.8 lagging power factor  
 D. 0.6 leading power factor

Question ID : 486324875

Status : Answered

Chosen Option : A

**Q.25** Convert  $(1011011010)_2$  into the hexadecimal number.

Ans  A.  $(2DA)_{16}$   
 B.  $(AD2)_{16}$   
 C.  $(DA2)_{16}$   
 D.  $(2AD)_{16}$

Question ID : 486324928

Status : Answered

Chosen Option : A

**Q.26** The function of a DC motor starter is to:

Ans  A. start the DC motor  
 B. limit the starting current  
 C. increase the starting torque  
 D. avoid dips in the supply voltage

Question ID : 486324874

Status : Answered

Chosen Option : B

**Q.27** In the dynamo-meter, the deflecting torque is directly proportional to the \_\_\_\_\_.

Ans  A. current in fixed coil  
 B. current in both fixed and moving coil  
 C. voltage applied  
 D. current in moving coil

Question ID : 486324856

Status : Answered

Chosen Option : B

**Q.28** Which of the following conditions is correct for rest of pointer in indicating instrument?

Ans  A. Deflection torque is equal to controlling torque.  
 B. Cannot be defined.  
 C. Deflection torque is less than controlling torque.  
 D. Deflection torque is greater than controlling torque.

Question ID : 486324924

Status : Answered

Chosen Option : A

Q.29 Which is the correct equivalent unit of Ampere?

Ans  A. Charge per meter  
 B. Charge meter per second  
 C. Coulomb per volt  
 D. Coulomb per second

Question ID : 486324841

Status : Answered

Chosen Option : D

Q.30 In control systems, the differentiator is represented by:

Ans  A.  $1/s$   
 B.  $1/s^2$   
 C. s  
 D.  $s^2$

Question ID : 486324900

Status : Answered

Chosen Option : C

Q.31 Which of the following equipment is a permit to separate the generator, feeders and circuit breakers from the bus bar for maintenance?

Ans  A. Fuse  
 B. Circuit breaker  
 C. Lightning arrester  
 D. Isolator

Question ID : 486324881

Status : Answered

Chosen Option : D

Q.32 When there is a change in the current or magnetic flux of the coil, an electromotive force is induced. This phenomenon is termed as \_\_\_\_\_.

Ans  A. capacitance  
 B. mutual inductance  
 C. transformation  
 D. self-inductance

Question ID : 486324850

Status : Answered

Chosen Option : D

Q.33 At low temperature, a semiconductor virtually behaves like \_\_\_\_\_.

Ans  A. a super conductor  
 B. a conductor  
 C. an insulator  
 D. a magnet

Question ID : 486324891

Status : Answered

Chosen Option : C

Q.34 Which of the following parts of the CRO is used for controlling the path of beam?

Ans  A. Focusing and accelerating anodes  
 B. Horizontal and vertical deflecting  
 C. Phosphorescent screen  
 D. Electron gun

Question ID : 486324921

Status : Answered

Chosen Option : A

Q.35 Which of the following is NOT a valid disadvantage of closed loop control system with negative feedback as compared to open loop system?

Ans  A. Narrow bandwidth  
 B. Complicated design  
 C. Oscillatory response  
 D. Higher cost

Question ID : 486324904

Status : Answered

Chosen Option : A

Q.36 Three single-phase transformers, each with 50 kVA ratings are connected in delta. If one of the transformers is taken out of service, the capacity of the system will be:

Ans  A. 57.7 kVA  
 B. 100 kVA  
 C. 86.6 kVA  
 D. 173.2 kVA

Question ID : 486324878

Status : Answered

Chosen Option : C

Q.37 Which type of duty is performed by the circuit breaker in normal conditions?

Ans  A. It is capable of being closed on to a fault.  
 B. It is capable of carrying fault current for short time.  
 C. Regular ON the circuit for normal current.  
 D. Breaking the fault current.

Question ID : 486324888

Status : Answered

Chosen Option : C

Q.38 What is the short circuit current in the power system when a symmetrical fault occurs if 25% reactance of the 2500 kVA base system has a full load current is 20 A corresponding to base kVA?

Ans  A. 80A  
 B. 76A  
 C. 96A  
 D. 55A

Question ID : 486324887

Status : Not Answered

Chosen Option : --

Q.39 Which of the following diodes is used in forward biased condition?

Ans  A. Photo diode  
 B. LED  
 C. Zener diode  
 D. Varactor diode

Question ID : 486324893

Status : Answered

Chosen Option : B

Q.40 What type of current flows in stator winding and rotor winding of a DC shunt generator?

Ans  A. Alternating Current and Direct Current  
 B. Direct Current and Alternating Current  
 C. Alternating Current and Alternating Current  
 D. Direct Current and Direct Current

Question ID : 486324864

Status : Answered

Chosen Option : C

Q.41 In which type of component impedance is limiting the fault current mostly resistive?

Ans  A. Transformer  
 B. Reactor  
 C. Cables  
 D. Generator

Question ID : 486324880

Status : Answered

Chosen Option : B

Q.42 What is the annual depreciation charge if the salvage value of the equipment to be ₹10,000 and the generator costing is ₹90,000 for 20 years?

Ans  A. ₹2,000  
 B. ₹4,000  
 C. ₹8,000  
 D. ₹6,000

Question ID : 486324883

Status : Answered

Chosen Option : B

Q.43 Which of the following is an intrinsic semiconductor?

Ans  A. Germanium  
 B. Bismuth  
 C. Boron  
 D. Antimony

Question ID : 486324889

Status : Answered

Chosen Option : A

Q.44 What is the advantage of high load factor in a generation station?

Ans  A. Per unit cost of generation can be increased  
 B. Higher voltage regulation  
 C. High generating cost to other  
 D. Reduces the variable load problem

Question ID : 486324884

Status : Answered

Chosen Option : D

Q.45 Transformer at no-load behaves like:

Ans  A. an inductive reactor  
 B. bank of capacitor  
 C. a resistor  
 D. a capacitive reactor

Question ID : 486324876

Status : Answered

Chosen Option : A

Q.46 A direct current series motor is mistakenly connected to a single-phase alternating current supply. The torque generated will be:

Ans  A. pulsating and unidirectional  
 B. twice the normal value  
 C. constant  
 D. rectangular

Question ID : 486324868

Status : Answered

Chosen Option : A

Q.47 Which of the following is defining the work done in moving a charge from one pole to another through a wire?

Ans  A. Electric power  
 B. Electric static field  
 C. Electric potential  
 D. Electric current

Question ID : 486324843

Status : Answered

Chosen Option : C

Q.48 Two systems with their individual gains as 10 and 20 are cascaded. Find the overall gain.

Ans  A. 20  
 B. 200  
 C. 100  
 D. 30

Question ID : 486324903

Status : Answered

Chosen Option : D

Q.49 State whether the given statements with reference to the non-linear control systems are true or false.

1. Non-linear system can be analysed with the Lyapunov stability criteria.
2. Non-linear system does not fulfil superposition principle.

Ans  A. 1-False, 2-True  
 B. 1-True, 2-True  
 C. 1-True, 2-False  
 D. 1-False, 2-False

Question ID : 486324905

Status : Answered

Chosen Option : B

Q.50 The maximum efficiency occurs in a separately excited DC generator when the terminal voltage is 110 V and the induced emf is 120 V, the stray losses, if the armature resistance is 0.5 ohm, will be:

Ans  A. 200 W  
 B. 250 W  
 C. 100 W  
 D. 150 W

Question ID : 486324862

Status : Not Attempted and  
Marked For Review

Chosen Option : --

Q.51 The direction of rotation of a DC motor can be determined using the:

Ans  A. Coulomb's Law  
 B. Biot-Savart Law  
 C. Fleming's left-hand rule  
 D. Ampere's law

Question ID : 486324865

Status : Answered

Chosen Option : C

Q.52 According to Ohm's law, which is a constant component when voltage is proportional to the current in a conductor?

Ans  A. Conductance  
 B. Resistance  
 C. Inductance  
 D. Capacitance

Question ID : 486324848

Status : Answered

Chosen Option : B

Q.53 Which is correct for low-conductivity conducting material?

Ans  A. High conducting material  
 B. High resistivity  
 C. Low resistance  
 D. Low resistivity

Question ID : 486324906

Status : Answered

Chosen Option : B

Q.54 Convert  $(0.75)_{10}$  into binary.

Ans  A.  $(0.11)_2$   
 B.  $(0.10)_2$   
 C.  $(0.101)_2$   
 D.  $(0.011)_2$

Question ID : 486324927

Status : Answered

Chosen Option : A

Q.55 All the insulating materials have \_\_\_\_.

Ans  A. a low resistivity but high conductivity  
 B. a positive temperature coefficient of resistance  
 C. no effect of temperature  
 D. a negative temperature coefficient of resistance

Question ID : 486324909

Status : Answered

Chosen Option : D

Q.56 What happens if the DC supply is applied to the transformer?

Ans  A. The current of the primary winding is high.  
 B. The current of the primary winding is quite low.  
 C. The current of the secondary winding is quite low.  
 D. The resistance of the primary winding is quite high.

Question ID : 486324877

Status : Answered

Chosen Option : A

Q.57 In transformer, hysteresis loss depends on:

Ans  A. flux density and frequency  
 B. time and thickness of lamination  
 C. frequency and thickness of lamination  
 D. flux density and thickness of lamination

Question ID : 486324872

Status : Answered

Chosen Option : A

Q.58 A generating station, the maximum demand is 50000 kw and the annual load factor is 40% then what is unit generated per annum?

Ans  A.  $11.88 \times 10^6$  kWh  
 B.  $17.52 \times 10^7$  kWh  
 C.  $14.92 \times 10^7$  kWh  
 D.  $16.21 \times 10^6$  kWh

Question ID : 486324885

Status : Answered

Chosen Option : B

Q.59 A 110 V DC machine has an armature resistance of 2 ohm. If the full load current is 15 A, the difference in induced voltage when the machine is running as a motor, and as a generator is:

Ans  A. 40 V  
 B. 30 V  
 C. 60 V  
 D. 50 V

Question ID : 486324869

Status : Answered

Chosen Option : C

Q.60 The permeability of a ferromagnetic material is \_\_\_\_.

Ans  A. very low  
 B. low  
 C. high  
 D. very high

Question ID : 486324912

Status : Answered

Chosen Option : D

Q.61 Which of the equipment is consisting in megger instruments?

Ans  A. Voltage source and voltmeter  
 B. Voltage source and ammeter  
 C. Current source and voltmeter  
 D. Current source and ammeter

Question ID : 486324914

Status : Answered

Chosen Option : B

Q.62 In germanium diode, the ratio of reverse to forward resistance is \_\_\_\_.

Ans  A. 400000 : 1  
 B. 4000 : 1  
 C. 40000 : 1  
 D. 400 : 1

Question ID : 486324895

Status : Answered

Chosen Option : A

Q.63 Which of the following is correct for ammeter?

Ans  A. It has low internal resistance in series.  
 B. It has low resistance in parallel.  
 C. It has high internal resistance in series.  
 D. It has high resistance in parallel.

Question ID : 486324855

Status : Answered

Chosen Option : A

Q.64 The current drawn by a 220V DC motor of armature resistance 1.5 ohms and back EMF 190 V is:

Ans  A. 220 A  
 B. 200 A  
 C. 20 A  
 D. 22 A

Question ID : 486324870

Status : Answered

Chosen Option : C

Q.65 When two systems are connected in parallel, then the overall gain of the system will be:

Ans  A. the product of their individual gains  
 B. the average gain of their individual gains  
 C. the sum of their individual gains  
 D. the ratio of their individual gains

Question ID : 486324902

Status : Answered

Chosen Option : C

Q.66 The shape of induced electro-motive force in the armature conductors of a DC motor is:

Ans  A. triangular  
 B. linear  
 C. constant  
 D. sinusoidal

Question ID : 486324871

Status : Answered

Chosen Option : D

Q.67 Represent  $(36)_{10}$  as a binary number.

Ans  A.  $(101010)_2$   
 B.  $(100100)_2$   
 C.  $(101000)_2$   
 D.  $(100010)_2$

Question ID : 486324925

Status : Answered

Chosen Option : B

Q.68 Compared to glass insulators the mechanical strength of porcelain insulators is \_\_\_\_.

Ans  A. very low  
 B. the same  
 C. half  
 D. very high

Question ID : 486324910

Status : Answered

Chosen Option : D

Q.69 The output of a 2-input logic gate goes high only when both inputs are low, else it remains low. Which gate is it?

Ans  A. XOR  
 B. AND  
 C. NOR  
 D. NAND

Question ID : 486324929

Status : Answered

Chosen Option : D

Q.70 Which is NOT used to increase the value of current that is measured by moving iron AC ammeter?

Ans  A. Shunt  
 B. Horizontal  
 C. Series  
 D. Perpendicular

Question ID : 486324857

Status : Answered

Chosen Option : C

Q.71 A transformer has positive voltage regulation when its load power factor is:

Ans  A. zero  
 B. leading  
 C. lagging  
 D. unity

Question ID : 486324861

Status : Answered

Chosen Option : C

Q.72 Which of the following applications is done by only AC potentiometer camper to DC potentiometer?

Ans  A. Measurement of current  
 B. Measurement of resistance  
 C. Measurement of voltage  
 D. Measurement of core losses

Question ID : 486324919

Status : Answered

Chosen Option : D

Q.73 Which type of materials has high resistivity or low conductivity?

Ans  A. Copper  
 B. Aluminium  
 C. Gold  
 D. Tungsten

Question ID : 486324908

Status : Answered

Chosen Option : D

Q.74 Which type of device is used to minimise the oscillation of indication measuring device?

Ans  A. Weighting device  
 B. Deflecting device  
 C. Controlling device  
 D. Damping device

Question ID : 486324853

Status : Answered

Chosen Option : D

Q.75 Under load conditions, the efficiency of two identical transformers can be measured by:

Ans  A. High potential test  
 B. Blocked Rotor test  
 C. Sumpner's test  
 D. No load test

Question ID : 486324866

Status : Answered

Chosen Option : C

Q.76 How can eddy current loss be minimised in Transformer?

Ans  A. By using iron core  
 B. By using air core  
 C. By using steel core  
 D. By using laminated iron core

Question ID : 486324859

Status : Answered

Chosen Option : D

Q.77 Neglecting saturation, if current taken by a series motor is increased from 8 A to 10 A, the percentage increase in its torque is:

Ans  A. 20%  
 B. 18%  
 C. 36%  
 D. 10%

Question ID : 486324867

Status : Answered

Chosen Option : C

Q.78 A dielectric gas is also known as \_\_\_\_\_.

Ans  A. insulating gas  
 B. charge gas  
 C. ionized gas  
 D. low resistivity gas

Question ID : 486324911

Status : Answered

Chosen Option : A

Q.79 A negative feedback closed loop control system has input of 10 V, forward gain of 1 and feedback gain of 3. Find the output voltage.

Ans  A. 2.5 V  
 B. 5.0 V  
 C. 10.0 V  
 D. 7.5 V

Question ID : 486324901

Status : Answered

Chosen Option : A

Q.80 Which of the following methods is used to extend range of wattmeter?

Ans  A. By using series resistance on current coil  
 B. By using instrument transformer conjunction with voltage and current coil  
 C. By using series and parallel combination with current and voltage coil  
 D. By using series resistance on voltage coil

Question ID : 486324913

Status : Answered

Chosen Option : B

Q.81 The word 'diode' is used to indicate that the device has \_\_\_\_\_.

Ans  A. two junctions  
 B. two electrodes  
 C. two anodes  
 D. two cathodes

Question ID : 486324894

Status : Answered

Chosen Option : B

Q.82 Which of the following is an INCORRECT type of wattmeter?

Ans  A. Induction  
 B. Dynamometer  
 C. Electrostatic  
 D. Motor meter

Question ID : 486324917

Status : Answered

Chosen Option : D

Q.83 Which of the following is an example of a sequential circuit?

Ans  A. Comparator  
 B. Encoder  
 C. Counters  
 D. Multiplexer

Question ID : 486324930

Status : Answered

Chosen Option : C

Q.84 The electromechanical induction meter operates by counting the revolutions of an aluminium disc that is made to rotate at a speed proportional to the \_\_\_\_\_.

Ans  A. power  
 B. resistance  
 C. current  
 D. voltage

Question ID : 486324852

Status : Answered

Chosen Option : A

Q.85 What is the volt drop allowed for all brushes of each polarity for carbon or graphite brushes in the DC machine?

Ans  A. 3 V  
 B. 4 V  
 C. 1 V  
 D. 2 V

Question ID : 486324863

Status : Answered

Chosen Option : C

Q.86 Which type of electrostatic voltmeter usually ranges from 30 V to 300 V?

Ans  A. Disk type  
 B. Multicellular type  
 C. Quadrant type  
 D. Attracted disc type

Question ID : 486324858

Status : Answered

Chosen Option : B

Q.87 Which of the following is the cost that depends upon maximum demand but is independent of units generated?

Ans  A. Fixed cost  
 B. Running cost  
 C. Semi-fixed cost  
 D. Full cost

Question ID : 486324882

Status : Answered

Chosen Option : A

Q.88 Which type of instrument is used in moving coil as the controlling and damping device?

Ans  A. Electrostatic  
 B. Electro-dynamic  
 C. Moving iron  
 D. Thermocouple

Question ID : 486324854

Status : Answered

Chosen Option : C

Q.89 Which type of quantity is INCORRECT for measurement by multi-tester?

Ans  A. Resistance  
 B. Continuity  
 C. Wattage  
 D. Voltage

Question ID : 486324915

Status : Answered

Chosen Option : C

Q.90 Which statement is INCORRECT for mutual inductance?

Ans  A. The change in the strength of the current in the coil is opposed by the coil itself by inducing an EMF.  
 B. The induced current developed in the neighbouring coil opposes the decay of the current in the coil when the main current in the coil decreases.  
 C. In mutual inductance, out of the two coils, one coil opposes the change in the strength of the current flowing in the other coil.  
 D. The induced current developed in the neighbouring coil opposes the growth of current in the coil when the main current in the coil increases.

Question ID : 486324849

Status : Answered

Chosen Option : A

Section : Quantitative Aptitude and Logical Ability

Q.1 If 6 stands for 3 and 4 stands for 5, then which number will replace the question mark (?) in the following expression?

$$34 + 108 \div ? - 61 \times 12 + 58 = -276$$

Ans  A. 6  
 B. 18  
 C. 12  
 D. 9

Question ID : 486324950

Status : Not Attempted and  
Marked For Review

Chosen Option : --

Q.2 A and B can do a work in 6 days, whereas B and C can do the same work in 9 days. It is known that B is twice as efficient as C. How many days will it take for A, B and C to finish the entire work together?

Ans  A.  $5\frac{1}{6}$   
 B.  $4\frac{10}{11}$   
 C.  $4\frac{7}{9}$   
 D.  $5\frac{3}{7}$

Question ID : 486324939

Status : Not Attempted and  
Marked For Review

Chosen Option : --

Q.3 The price of a toy is first increased by 28% and then again increased by 20%. After that, the price decreased by 45%. If its final price is ₹422.40, then 35% of its original price (in ₹) is:

Ans  A. 168  
 B. 157  
 C. 182  
 D. 175

Question ID : 486324933

Status : Answered

Chosen Option : A

Q.4 If ₹18,500 amounts to ₹22,385 in 2 years at x% per annum of compound interest, then the value of x is:

Ans  A. 11.00  
 B. 10.50  
 C. 11.50  
 D. 10.00

Question ID : 486324937

Status : Answered

Chosen Option : D

Q.5 If 'wall' is called 'window', 'window' is called 'door', 'door' is called 'floor', 'floor' is called 'roof', and 'roof' is called 'ventilator', from which source will a person get fresh air?

Ans  A. Door  
 B. Window  
 C. Floor  
 D. Roof

Question ID : 486324944

Status : Answered

Chosen Option : A

Q.6 In a class of 100 students, Bhavya's rank is 50<sup>th</sup> from the top and Shivani's rank is 68<sup>th</sup> from the bottom. If no two persons get the same rank, how many students are there between the ranks of Bhavya and Shivani?

Ans  A. 16  
 B. 80  
 C. 18  
 D. 82

Question ID : 486324941

Status : Answered

Chosen Option : A

**Q.7** Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:

No pasta is a pizza  
All pizzas are candies  
Some candies are pastas

Conclusions:

- I. Some pizzas are pastas
- II. Some pastas are candies
- III. Some candies are pizzas

Ans  A. Only conclusion II follows  
 B. Conclusions I and II follow  
 C. Only conclusion III follows  
 D. Conclusions II and III follow

Question ID : 486324942

Status : Answered

Chosen Option : D

**Q.8** If 15% of a first number is equal to the three-fifth of the second number, what is the ratio of the first number to the second number?

Ans  A. 5:2  
 B. 1:4  
 C. 2:5  
 D. 4:1

Question ID : 486324936

Status : Answered

Chosen Option : D

**Q.9** If the last 10 letters in the following string are removed and become the first 10 letters, then how many letters will be there between 'B' and 'D'?

T W E K D P S L Z U B Y S Q N R G J

Ans  A. 14  
 B. 11  
 C. 13  
 D. 12

Question ID : 486324943

Status : Not Answered

Chosen Option : --

**Q.10** In a 4-week exhibition sale, a stall owner has to pay a fixed amount of ₹24,000 irrespective of the number of items sold. He sells 4,000 terracotta lamps whose cost price is ₹144 per lamp. He sells 3,200 lamps in the first three weeks at ₹160 per lamp, and in the last week he sells the remaining lamps at ₹96 per lamp. What is his overall gain or loss percentage (approx.)?

Ans  A. 1.78% loss  
 B. 1.87% gain  
 C. 1.68% gain  
 D. 1.87% loss

Question ID : 486324934

Status : Not Answered

Chosen Option : --

Q.11 Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the one that is different.

Ans  A. UXBG  
 B. XAEJ  
 C. SVZD  
 D. TWAF

Question ID : 486324948

Status : Answered

Chosen Option : C

Q.12 An empty cistern is in the form of a right circular cone with radius 350 cm and height 9 m. If water is let in at the rate of 5 cu. decimeter per 2 seconds, how long will it take to fill the cistern (in minutes)?

Ans  A. 770  
 B. 800  
 C. 752  
 D. 784

Question ID : 486324940

Status : Not Answered

Chosen Option : --

Q.13 Select the option that is related to the third term in the same way as the second term is related to the first term.

CHAIR : EEFBC :: TABLE : ?

Ans  A. VXGFP  
 B. VXGFO  
 C. VXGEP  
 D. VXGEO

Question ID : 486324947

Status : Not Answered

Chosen Option : --

Q.14 Select the number from among the given options that can replace the question mark (?) in the following series.

83, 62, 74, 64, ?, 66, 62

Ans  A. 61  
 B. 67  
 C. 65  
 D. 63

Question ID : 486324949

Status : Answered

Chosen Option : C

Q.15 A train overtakes two boys, who are walking in the same direction as the train is moving, at the rate of 5 km/h and 7 km/h in 6 seconds and 9 seconds, respectively. Find the length of the train.

Ans  A. 15 m  
 B. 14 m  
 C. 12 m  
 D. 10 m

Question ID : 486324938

Status : Not Answered

Chosen Option : --

Q.16 R and S are a married couple. A and V are brothers. S is the only sister of V. V is married to U and X is the only son of V. How is S related to X?

Ans  A. Maternal uncle  
 B. Sister  
 C. Maternal aunt  
 D. Paternal aunt

Question ID : 486324946

Status : Answered

Chosen Option : D

Q.17 Prerna places her clock on the study table in such a way, that the hour hand points to the south at 3 p.m. In which direction will the minute hand point at 6.53 a.m.?

Ans  A. South  
 B. North  
 C. North-east  
 D. South-west

Question ID : 486324945

Status : Answered

Chosen Option : C

Q.18 What is the average of  $18^2, 19^2, 20^2, \dots, 30^2$ ?

Ans  A. 591  
 B. 498  
 C. 499  
 D. 590

Question ID : 486324932

Status : Not Answered

Chosen Option : --

Q.19 A pressure cooker, the marked price of which is ₹1,200, is available for ₹939.12 after two successive discounts of n% and 9%. What is the value of n?

Ans  A. 14  
 B. 12  
 C. 9.8  
 D. 10.5

Question ID : 486324935

Status : Not Answered

Chosen Option : --

Q.20 Let  $x = (4^{\frac{1}{4}} \times (256)^{\frac{1}{4}}) \div 8^{\frac{1}{6}}$  and  $y = (729)^{\frac{1}{5}} \div 3^{\frac{1}{5}}$ , then what is the value of  $xy$ ?

Ans  A. 18  
 B.  $2\sqrt{3}$   
 C.  $3\sqrt{2}$   
 D. 12

Question ID : 486324931

Status : Not Answered

Chosen Option : --

Section : General English

Q.1 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

P) I follow him on hands and knees through a low tunnel, part of a network of five miles of passages that workers burrowed beneath the pyramid in the 27th century B.C.  
Q) The air is redolent of mud and dust.  
R) Hawass alights on the subterranean floor and shines a flashlight on the Pharaoh Djoser's granite sarcophagus.  
S) "The dead king had to go through these tunnels to fight wild creatures until he could become Osiris, the god of the underworld," he tells me, stepping back into the sunlight.

Ans  A. RQPS  
 B. SPQR  
 C. RQSP  
 D. RSPQ

Question ID : 486324957

Status : Not Answered

Chosen Option : --

Q.2 Parts of a sentence are given below in jumbled order.

Arrange the parts in the correct order to form a meaningful sentence.

a) kindly send the details  
b) regarding point no. 1  
c) within a week  
d) it is requested to

Ans  A. BDAC  
 B. BCAD  
 C. DBCA  
 D. DABC

Question ID : 486324960

Status : Answered

Chosen Option : D

Q.3 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

P) Many carnivores, such as dogs and cats, have no amylase in their saliva; therefore, their natural diet contains very little starch.

Q) Saliva dissolves some of the chewed food and acts as a lubricant, facilitating passage through the subsequent portions of the digestive tract.

R) Saliva also contains a starch-digesting enzyme called amylase (ptyalin), which initiates the process of enzymatic hydrolysis; it splits starch (a polysaccharide containing many sugar molecules bound in a continuous chain) into molecules of the double sugar maltose.

S) Substances must be in solution for the taste buds to be stimulated; saliva provides the solvent for food materials.

Ans  A. PQRS  
 B. SPRQ  
 C. RSPQ  
 D. QRPS

Question ID : 486324958

Status : Answered

Chosen Option : B

Q.4 Select the most appropriate meaning of the given idiom.

Turning a deaf ear

Ans  A. Turning deaf  
 B. Refusing to listen  
 C. Listening loudly  
 D. Beating drum

Question ID : 486324953

Status : Answered

Chosen Option : B

Q.5 Select the most appropriate option that can substitute the underlined words in the given sentence.

Vishwa's research proposal is ready; he just needs to read and check all the details carefully.

Ans  A. creakingdoor hangs long on its hinges  
 B. be a long drink of water  
 C. cross his t's and dot his i's  
 D. bread always falls on the buttered side

Question ID : 486324954

Status : Answered

Chosen Option : C

Q.6 Select the most appropriate synonym of the given word.

Lecherous

Ans  A. Unkempt  
 B. Untidy  
 C. Uncouth  
 D. Lustful

Question ID : 486324956

Status : Not Answered

Chosen Option : --

Q.7 Select the most appropriate synonym of the given word.

Mortification

Ans  A. Mortality  
 B. Humility  
 C. Humiliation  
 D. Fear

Question ID : 486324955

Status : Answered

Chosen Option : C

Q.8 Select the most appropriate preposition to fill in the blank.

The Charles River flows \_\_\_\_\_ Boston.

Ans  A. of  
 B. with  
 C. for  
 D. through

Question ID : 486324952

Status : Answered

Chosen Option : A

Q.9 The following sentence has been split into four segments. Identify the segment that contains a grammatical error.

This scheme / will help in / realise the goals / of food for all.

Ans  A. will help in  
 B. of food for all  
 C. realise the goals  
 D. This scheme

Question ID : 486324959

Status : Not Answered

Chosen Option : --

Q.10 Select the most appropriate conjunction to fill in the blank.

Not only did he lose the game, \_\_\_\_\_ he also started the fight.

Ans  A. and  
 B. but  
 C. nor  
 D. or

Question ID : 486324951

Status : Answered

Chosen Option : B

Section : General Awareness

Q.1 Javadi hills are an extension of the:

Ans  A. eastern ghats  
 B. Himalayan range  
 C. Aravalli range  
 D. western ghats

Question ID : 486324972

Status : Not Answered

Chosen Option : --

Q.2 Annie Besant, who was made the Congress President in 1917, began to take a conciliatory attitude towards the moderate, particularly after the announcement of the \_\_\_\_\_ proposals, and put the passive resistance programme on hold.

Ans  A. Montagu-Chelmsford Reforms  
 B. Doctrine of Lapse  
 C. Ilbert Bill  
 D. Indias Councils Act

Question ID : 486324966

Status : Not Answered

Chosen Option : --

Q.3 On the basis of embryonic layers, animals are classified into:

Ans  A. phylum chordata and non-chordates  
 B. acoelomates and coelomates  
 C. echinoderms and chordates  
 D. diploblastic and triploblastic

Question ID : 486324977

Status : Not Answered

Chosen Option : --

Q.4 Which of the following is the first country in the world to approve commercial cultivation of Golden Rice?

Ans  A. Thailand  
 B. Sri Lanka  
 C. India  
 D. Philippines

Question ID : 486324976

Status : Answered

Chosen Option : C

Q.5 The Citizenship Act, 1955 (with effect from 10 January 2020) provides Indian Citizenship to migrants who have entered into India up to which of the following cut of dates?

Ans  A. 31 December 2015  
 B. 31 November 2014  
 C. 31 December 2014  
 D. 31 November 2015

Question ID : 486324978

Status : Not Answered

Chosen Option : --

**Q.6** According to the Law of Variable Proportions, for the short-run production function, which of the following statement(s) is/are true with respect to the relationship between Average Product (AP) and Marginal Product (MP)?

- I. So long as MP curve lies above AP curve, the AP curve slopes upward. That is, AP rises, when MP > AP.
- II. At the point of intersection of MP and AP curves, the AP curve slopes downwards and MP < AP.

Ans  A. Only II  
 B. Both I and II  
 C. Neither I nor II  
 D. Only I

Question ID : 486324970

Status : Not Answered

Chosen Option : --

**Q.7** What is the child sex ratio (for 0 to 6 years) of Haryana as per the census 2011?

Ans  A. 902  
 B. 861  
 C. 899  
 D. 834

Question ID : 486324973

Status : Not Answered

Chosen Option : --

**Q.8** Which of the following is the full form MISA?

Ans  A. Minimizing the Independent Security Act  
 B. Monitoring International Security Act  
 C. Maintenance of International Security Act  
 D. Maintenance of Internal Security Act

Question ID : 486324980

Status : Not Answered

Chosen Option : --

**Q.9** Which of the following is NOT used as a food preservative?

Ans  A. Aspartame  
 B. Table salt  
 C. Sodium benzoate  
 D. Sugar

Question ID : 486324975

Status : Answered

Chosen Option : A

**Q.10** A five-judge bench of the Supreme Court with a \_\_\_\_\_ majority ruled that the office of Chief Justice of India comes under the purview of the Right to Information Act.

Ans  A. 4 : 3  
 B. 3 : 1  
 C. 2 : 1  
 D. 3 : 2

Question ID : 486324979

Status : Answered

Chosen Option : D

Q.11 Which of the following dances was included in the list of the UNESCO Heritage Dances in the year 2010?

Ans  A. Santhal  
 B. Satriya  
 C. Chhau  
 D. Daandiya Raas

Question ID : 486324968

Status : Not Answered

Chosen Option : --

Q.12 In which city was the Durand Cup 2022 final held in September 2022?

Ans  A. Bengaluru  
 B. Kolkata  
 C. Jaipur  
 D. Mumbai

Question ID : 486324965

Status : Not Answered

Chosen Option : --

Q.13 As per the Prison Statistics India 2021 report of the National Crime Records Bureau, the occupancy rate of prisons has increased from 118% in 2020 to \_\_\_\_\_ in 2021.

Ans  A. 130.2%  
 B. 132.2%  
 C. 120.2%  
 D. 125.2%

Question ID : 486324963

Status : Not Answered

Chosen Option : --

Q.14 Who is the writer of one of the earliest musical treatises 'Brihaddeshi'?

Ans  A. Ramamatya  
 B. Haripala  
 C. Matanga  
 D. Sharangadeva

Question ID : 486324969

Status : Not Answered

Chosen Option : --

Q.15 According to NITI Aayog 's Multidimensional Poverty Index (MPI), which state of India registered the second highest poverty of 42.16% of population in 2021?

Ans  A. Jharkhand  
 B. Madhya Pradesh  
 C. Uttar Pradesh  
 D. Bihar

Question ID : 486324964

Status : Answered

Chosen Option : A

Q.16 Which of the following schemes has the highest allocation in the 2021-22 budget at ₹73,000 crore?

Ans  A. Urea Subsidy  
 B. FCI Food Subsidy  
 C. MGNREGA  
 D. Decentralised Procurement Scheme

Question ID : 486324971

Status : Answered

Chosen Option : A

Q.17 What was the drug launched by Natco Pharma under the brand BRECITA to treat epilepsy in the country in February 2022?

Ans  A. Lamaracetum  
 B. Nataracetam  
 C. Brivaracetam  
 D. Epicaracetam

Question ID : 486324962

Status : Not Answered

Chosen Option : --

Q.18 Which of these Buddhist temples is correctly matched with the place where it is located?

Ans  A. Mahaparinirvana Temple - Kushinagar  
 B. Golden Pagoda Temple - Andhra Pradesh  
 C. Sarnath Temple - Allahabad  
 D. Red Maitreya Temple - Srinagar

Question ID : 486324967

Status : Not Answered

Chosen Option : --

Q.19 The Indian Institute of Spices Research (IISR) under the Indian Council for Agricultural Research (ICAR) inked an MoU with \_\_\_\_\_, a Russia-based company, for the commercialisation of biocapsule, an encapsulation technology for bio-fertilisation, on 30 June 2022.

Ans  A. Lysterra, LLC  
 B. Valero VLS  
 C. Berkshire BSK  
 D. Chevron CHN

Question ID : 486324974

Status : Not Answered

Chosen Option : --

Q.20 Which of the following institutions has developed Overhauser Magnetometers as part of its technology development program in October 2022?

Ans  A. Raman Research Institute, Bangalore  
 B. Agharkar Research Institute, Pune  
 C. Indian Institute of Geomagnetism, Mumbai  
 D. Wadia Institute of Himalayan Geology, Dehradun

Question ID : 486324961

Status : Not Answered

Chosen Option : --