

089/2026

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total No. of questions : 100

Time : 1 Hour 30 Minutes

Maximum : 100 Marks

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

089/2026

Maximum : 100 marks

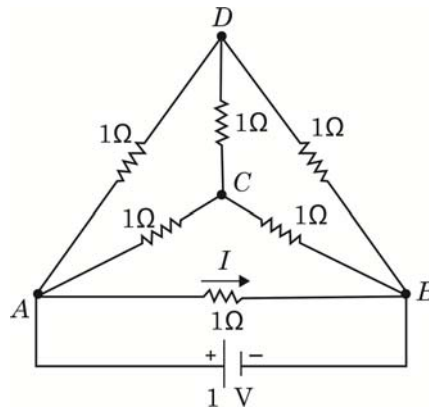
Time : 1 hour and 30 minutes

1. Which is the unit of electromotive force?
(A) Ampere (B) Volt (C) Watt (D) Ohm
2. The mass of Proton is how many times the mass of an electron?
(A) 1840 (B) 184 (C) 18400 (D) 184000
3. Which one of the following is a good conductor?
(A) Silicon (B) Paper (C) Eureka (D) Mica
4. Which colour is used for earthing wires?
(A) Red (B) Black (C) Blue (D) Green
5. In Tinman's solder the composition of Lead and Tin is :
(A) Tin – 50% Lead – 50% (B) Tin – 60% Lead – 40%
(C) Tin – 90% Lead – 10% (D) Tin – 35% Lead – 65%
6. Which is the working temperature of Electrician's solder?
(A) 200° C (B) 185° C (C) 237° C (D) 219° C
7. How many electrons are passing through a conductor for one Ampere current?
(A) 6.02×10^{10} electrons (B) 8.32×10^{12} electrons
(C) 6.24×10^{18} electrons (D) 9.38×10^{16} electrons
8. Which is the unit of resistance?
(A) Volt (B) Ampere (C) Watt (D) Ohm
9. Which of the following is the Atomic number of silicon?
(A) 6 (B) 14 (C) 18 (D) 25
10. Which is the unit of resistivity?
(A) Ohm – Meter (B) Ohm /Meter
(C) Meter – Ohm (D) Meter/Ohm

11. In any closed circuit at constant temperature, the ratio of voltage and current :

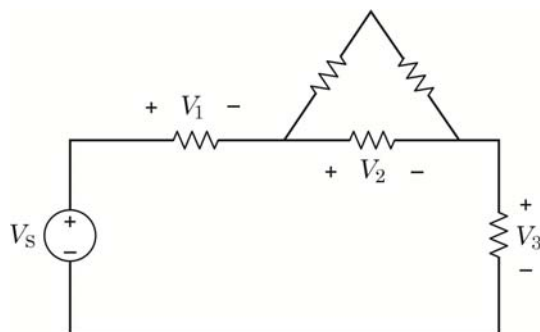
- (A) Increases (B) Decreases
(C) Remains constant (D) Varies Exponentially

12. Calculate the current I in the circuit :



- (A) 2 A (B) 1 A (C) 1/3 A (D) 1/2 A

13. In the circuit diagram shown, if $V_S = 20$ V, $V_1 = 5$ V and $V_2 = 5$ V, what will be the value of V_3 ?



- (A) 5 V (B) 10 V (C) 2.5 V (D) 0 V

14. Resistance of carbon increases if :

- (A) Temperature is reduced (B) Temperature is increased
(C) Temperature remains constant (D) None of the above

15. If the length of a wire is doubled and area of cross section is halved, then new resistance will be :

- (A) Increases 2 times (B) Decreases 2 times
(C) Increases 4 times (D) Remains same

16. Find the odd one out :

Lead acid cell, Nickel-iron cell, Carbon-Zinc cell

- (A) Lead acid cell (B) Nickel-iron cell
(C) Carbon-Zinc cell (D) None of the above

17. If a group of 4 cells are connected in parallel, each cell has a rating 1.5 V and 2 AH. The voltage rating of this battery would be :

- (A) 6 V (B) 12 V (C) 3 V (D) 1.5 V

18. Match the following :

- (i) Buckling (a) Sediments falling from the plate
(ii) Hard Sulphation (b) Bending of electrodes
(iii) Partial short (c) High internal resistance of electrodes

- (A) (i)-(c), (ii)-(a), (iii)-(b) (B) (i)-(a), (ii)-(b), (iii)-(c)
(C) (i)-(b), (ii)-(c), (iii)-(a) (D) (i)-(a), (ii)-(c), (iii)-(b)

19. Which of the following statement is / are correct about care and maintenance of batteries?

- (i) The level of electrolyte should always be kept to a minimum of 10 mm below the plates
(ii) A discharged battery should be tested with a high rate discharge tester
(iii) If the battery has not been used for a long period then the battery should be put on a trickle charge
(iv) The vent plugs should be kept open while charging

- (A) Only (iii) and (iv)
(B) Only (i) and (ii)
(C) Only (i), (ii) and (iv)
(D) All of the above (i), (ii), (iii) and (iv)

20. The specific resistance of conductors is :

- (A) Very High (B) Low (C) High (D) Zero

21. Which of the following statement is/are correct about magnetic materials?

- (i) The materials such as iron, steel, nickel, cobalt and their alloys are ferromagnetic materials
- (ii) Soft iron become permanent magnet and steel become temporary magnet after magnetization
- (iii) Materials which are slightly attracted by a powerful magnet are called paramagnetic materials
- (iv) Water is paramagnetic and air is diamagnetic

- (A) Only (i) & (ii) (B) Only (i) & (iii)
(C) Only (i), (ii) & (iii) (D) All of the above (i), (ii), (iii) & (iv)

22. Which of the following statement is/are correct about magnetic lines of force?

- (i) The magnetic lines of force travel from South to North pole outside the magnet and North to South pole inside the magnet.
- (ii) The magnetic lines of force never intersect each other
- (iii) The magnetic lines of force preferred to travel through nonmagnetic materials
- (iv) The magnetic lines of force forms a loop

- (A) Only (i) & (ii) (B) Only (ii) & (iii)
(C) Only (ii) & (iv) (D) All of the above (i), (ii), (iii) & (iv)

23. Commercial method of making permanent magnet is

- (A) Single touch method (B) Double touch method
(C) Divided touch method (D) Induction method

24. Which of the following statement is/are correct about different methods to find the direction of magnetic field?

- (i) The Right Hand Grip Rule can be used to determine the direction of the magnetic field in current carrying conductor
- (ii) The right handed corkscrew rule used to determine the direction of magnetic field in the solenoid
- (iii) Direction of magnetic field in a solenoid can be found by using right hand palm rule
- (iv) In right hand palm rule the thumb indicates the direction of North pole in the solenoid

- (A) Only (i) (B) Only (i) and (ii)
(C) Only (i), (ii) and (iii) (D) Only (i), (iii) and (iv)

25. Match the following List A (Quantity) with List B (Unit) :

List A	List B
(i) MMF	(1) Tesla
(ii) Reluctance	(2) AT/m
(iii) Magnetic field strength	(3) AT
(iv) Magnetic flux density	(4) AT/Wb
(A) (i)-(3), (ii)-(4), (iii)-(2), (iv)-(1)	(B) (i)-(3), (ii)-(4), (iii)-(1), (iv)-(2)
(C) (i)-(4), (ii)-(3), (iii)-(2), (iv)-(1)	(D) (i)-(3), (ii)-(2), (iii)-(4), (iv)-(1)

26. Which of the following statement is/are not correct about Hysteresis and Hysteresis loop?

- (i) Hysteresis is the lagging of magnetic flux density (B) behind the magnetizing force (H) during magnetization and demagnetization of a magnetic material
 - (ii) Hysteresis loop of soft iron is narrow, whereas hysteresis loop of hard steel is wide
 - (iii) Hysteresis loss of a magnetic material is inversely proportional to the area of hysteresis loop
 - (iv) The hysteresis loop of soft iron is narrow because it has low coercivity and low retentivity
- (A) Only (i) (B) Only (ii) (C) Only (iii) (D) Only (iii) and (iv)

27. The energy stored in an inductor is :

- (A) Stored in the electric field surrounding the inductor
- (B) Stored in the magnetic field surrounding the inductor
- (C) Dissipated as heat in the winding
- (D) Stored in the core as mechanical energy

28. Which of the following statement is/are correct about inductive reactants?

- (i) Inductive reactants $X_L = 6.28 f L \Omega$
 - (ii) Inductive reactants in DC circuit is greater than that of AC circuits
 - (iii) Inductive reactants is the result of emf of the inductor
 - (iv) Parallel connection of inductors reduces the inductive reactants
- (A) Only (i), (ii) and (iii) (B) Only (i), (ii) and (iv)
 (C) Only (i), (iii) and (iv) (D) Only (iii) and (iv)

29. Time constants of RL circuit and RC circuit are given by
 (A) L/R and RC Respectively (B) LR and R/C Respectively
 (C) L^2R and RC Respectively (D) L/R and R^2C Respectively
30. Which of the following statement is/are not correct about capacitors?
 (i) Capacitance of parallel plate capacitor is increases with its plate area
 (ii) Coulomb per volt is a unit of capacitance
 (iii) Energy stored in a capacitor is given by $W = 0.5 CV^2$
 (iv) Capacitors are connected in series to increase the effective capacitance
 (A) Only (i) and (ii) (B) Only (ii)
 (C) Only (iii) (D) Only (iv)
31. One complete set of positive and negative values of an alternating quantity is called :
 (A) Amplitude (B) Cycle (C) Phase (D) Frequency
32. The RMS value of AC is also known as :
 (A) Peak value (B) Effective value
 (C) Average value (D) Form factor
33. The value of form factor for a pure sine wave is approximately :
 (A) 0.637 (B) 0.707 (C) 1.11 (D) 1.414
34. Peak factor (crest factor) of a sine wave is :
 (A) 1.11 of the peak value (B) 1.414
 (C) 0.707 of the crest value (D) 0.637
35. Which of the following statement is/are correct about AC circuit?
 (i) In a purely resistive AC circuit, current and voltage are in phase
 (ii) In a purely inductive AC circuit, current lags voltage by 90°
 (iii) In a purely capacitive AC circuit, current leads voltage by 180°
 (A) Only (ii) & (iii) (B) Only (i) & (ii)
 (C) All of the above (i), (ii) & (iii) (D) Only (i) & (iii)

36. Power factor of an AC circuit is defined as the cosine of the angle between :
(A) Voltage and frequency (B) Current and resistance
(C) Voltage and current (D) Impedance and reactance
37. The main advantage of AC over DC for power transmission is :
(A) AC can be easily generated only
(B) AC voltage can be easily stepped up/down using transformers
(C) AC has no power loss
(D) AC does not require insulation
38. True power in an AC circuit is measured in :
(A) VA (B) VAR (C) Watt (D) Ohm
39. Earthing means connecting the :
(A) Live wire to the neutral
(B) Non-current carrying metal parts of equipment to the general mass of earth
(C) Phase wire to another phase wire
(D) Neutral to the live wire
40. The maximum permissible value of earth resistance for domestic installations is generally :
(A) Less than 1 ohm (B) Less than 5 ohms
(C) 100 ohms (D) 1000 ohms
41. In Flemings right hand rule, what does the forefinger represent?
(A) The direction of motion of the conductor
(B) The direction of the induced emf
(C) The direction of flux
(D) The direction of the observer
42. In DC series generator, the field winding has :
(A) Many turns of thin wire (B) Few turns of thick wire
(C) Few turns of thin wire (D) Many turns of thick wire

43. The EMF equation of a DC generator is :
- (A) $E = P \phi ZN / 120A$ (B) $E = P \phi ZN / 60$
 (C) $E = P \phi Z / A$ (D) $E = P \phi ZN / 60A$
44. The field winding of a shunt generator consist of :
- (A) Few turns of thick wire (B) Many turns of thick wire
 (C) Many turns of thin wire (D) Few turns of thin wire
45. Which type of compound generator is used, when the load is located very far from the generator?
- (A) Under compound
 (B) Flat or level compound
 (C) Differential compound generator
 (D) Over compounded
46. Calculate the back emf of a 220 V DC motor with an armature resistance of 0.4 ohm and a full load armature current of 25A :
- (A) 210 V (B) 230 V (C) 200 V (D) 220 V
47. Where DC compound motors are used?
- (A) Constant speed application
 (B) Constant speed under varying load requirements
 (C) High starting torque application
 (D) Constant load application
48. How no-volt coil is connected in a 3- point starter with dc shunt motor?
- (A) Parallel with the armature (B) Series with the armature
 (C) Series with the shunt field (D) Directly connected to supply line
49. What is the use of resistor connected with holding coil in 4-point starter?
- (A) Protect the armature from short circuit
 (B) Protect the motor from over load
 (C) Limit the current in the no-volt coil
 (D) Protect the coil from short circuit
50. The most widely used speed control method is
- (A) Armature voltage control (B) Series field control
 (C) Ward leonard method (D) Shunt field control

51. Starting winding of a Single phase AC motor is :
- High resistance and Low reactance
 - High reactance and Low resistance
 - Low resistance and low reactance
 - High reactance and High resistance
52. Which statement is true in case of 3 phase squirrel cage induction motor :
- Nearly constant speed
 - Speed can vary by changing number of poles
 - Maintenance high
 - High starting torque
- (i), (ii) and (iii) only
 - (i) and (ii) only
 - (i) and (iii) only
 - All of them are true
53. The input power of an induction motor is 32 kW. The stator losses are 1 kW and friction and windage losses are 1.5 kW. What is the Rotor input?
- 29.5 kW
 - 34.5 kW
 - 48 kW
 - 31 kW
54. Centrifugal switch of AC single phase motor is connected in :
- Series with running winding
 - Parallel with both starting and running winding
 - Series with starting winding
 - Parallel with starting winding
55. What are the function of starter in 3 phase induction motor?
- Limit inrush current
 - Protect the motor from over load
 - Protect from single phasing
 - To start and stop motor
- Both (i) and (ii)
 - (i), (ii) and (iii)
 - All of these
 - (i), (ii) and (iv)
56. The method using for rapid stopping of an AC 3 phase induction motor by interchanging two stator lead is called :
- Plugging
 - Cogging
 - Commutation
 - Crawling

57. A slip ring induction motor runs at a synchronous speed of 375 RPM designed to operate on the Indian standard power frequency determine the number of poles ?
 (A) 900 Poles (B) 4 Poles (C) 8 Poles (D) 16 Poles
58. The working of a single phase AC motor based on :
 (A) Faraday's laws of electromagnetic induction
 (B) Lenz's law
 (C) Double revolving theory
 (D) Right hand thumb rule
59. The selection of a Starter in a 3 phase induction motor depends on :
 (i) Starting current
 (ii) Voltage rating of motor
 (iii) Types of load
 (iv) Slip of motor
 (A) (i) and (ii) only (B) (ii) and (iii) only
 (C) (i), (ii) and (iii) only (D) All of these
60. In a star-delta starter at starting the phase voltage is :
 (A) $\sqrt{3}$ times line value
 (B) $1/\sqrt{3}$ times the line value
 (C) Line and phase voltages are same
 (D) 40% of line value
61. What thickness of laminations is usually used for a 50 Hz transformer operation?
 (A) 0.25 to 0.27 mm (B) 0.10 to 0.15 mm
 (C) 1.00 to 1.25 mm (D) 2.50 to 2.70 mm
62. What causes parallax error when reading an instrument?
 (A) Defect in the mirror scale
 (B) Gap between the pointer and the scale
 (C) Poor lighting in the room
 (D) Bent pointer

63. A multi-range meter is set to the 5V DC range. To measure a voltage, an operator uses the 0 – 50 scale and reads a value of 23.7. What is the actual measured voltage?
- (A) 0.237 V (B) 23.7 V (C) 2.37 V (D) 237 V
64. Why does a Tangent Galvanometer require no prior calibration or comparison with other instruments?
- (A) It uses spring control mechanism
(B) It is a secondary class commercial instrument
(C) It operates on eddy current principles
(D) It gives output directly in terms of deflection and instrument constants
65. What occurs if an AC voltage supply is connected to a standard DC PMMC voltmeter?
- (A) Pointer shows maximum full-scale deflection
(B) Instrument burns out instantly due to hysteresis
(C) Meter fails to deflect
(D) Scale becomes non-linear and reads peak voltage
66. What specific transformer core loss is reduced by adding silicon to the iron?
- (A) Hysteresis loss (B) Dielectric loss
(C) Copper loss (D) Friction loss
67. What is the composition of steel and silicon steel in transformer core?
- (A) Iron 97% and silicon 3% (B) Iron 93% and silicon 7%
(C) Iron 95% and silicon 5% (D) Iron 90% and silicon 10%
68. Under what condition does a transformer operate at maximum efficiency?
- (A) $\text{Core loss} = \text{Copperloss}^2$ (B) $\text{Coreloss} < \text{Copperloss}$
(C) $\text{Core loss} > \text{Copperloss}$ (D) $\text{Core loss} = \text{Copperloss}$
69. How is heat dissipated from the transformer core and windings into the atmosphere in an oil-filled transformer?
- (A) By an internal electric cooling fan
(B) Insulating oil transfers heat to cooling pipes
(C) Through silica gel absorption
(D) By opening the steel tank during operation

70. What is an isolation transformer?
- (A) A transformer that steps up voltage by twice its original value
 - (B) A transformer where secondary voltage is lower than the primary voltage
 - (C) A transformer where secondary voltage equals primary source voltage
 - (D) A transformer with no secondary winding
71. _____ is the luminous flux emitted by the light source per unit solid angle.
- (A) Luminous efficiency
 - (B) Illumination
 - (C) Lumen
 - (D) Luminous intensity
72. What is the condition for glowing LED?
- (A) Forward bias
 - (B) Reverse bias
 - (C) Zener breakdown
 - (D) Avalanche breakdown
73. Consider the following statements :
- The width of depletion layer of a PN junction depends on _____
- (i) The doping concentration of the P type semiconductor
 - (ii) The doping concentration of the N type semiconductor
 - (iii) The applied voltage across the junction
 - (iv) Physical size or cross sectional area
- (A) All of the above
 - (B) Only (iii)
 - (C) Only (i), (ii) and (iii)
 - (D) Only (iii) and (iv)
74. Ripple factor of a full wave rectifier without filter will be :
- (A) 0.2
 - (B) 0.482
 - (C) 0.24
 - (D) 1.21
75. Silicon is preferred for manufacturing zener diodes because :
- (A) It is relatively cheap
 - (B) Needs lower doping level
 - (C) Has high temperature and current capacity
 - (D) Has lower breakdown voltage
76. According to the inverse square law of illumination, how does the illuminance (E) on a surface change with respect to the distance (d) from a point source of light
- (A) E directly proportional to d
 - (B) E directly proportional to d^2
 - (C) E inversely proportional to d
 - (D) E inversely proportional to d^2

77. Consider the following statements :
The emitter of a transistor is generally doped the heaviest because it _____
(i) has to dissipate maximum power
(ii) has to supply the charge carriers
(iii) is the first region of transistor
(A) Only (i) & (iii) (B) Only (ii)
(C) Only (ii) & (iii) (D) All of the above (i) (ii) & (iii)
78. The following are the donor impurities for silicon :
(A) Boron, Aluminium, Gallium
(B) Arsenic, Antimony, Aluminium
(C) Boron , Aluminium, Arsenic
(D) Phosphorus, Arsenic, Antimony
79. The inner surface of the fluorescent tube is coated with _____
(A) Phosphor (B) Silver (C) Sodium (D) Halogen
80. _____ device is used in automatic electric iron to regulate the temperature.
(A) Hot plate (B) Thermostat
(C) Heating element (D) Switch
81. Energy generated by using wind, tides, solar and biomass is known as
(i) Conventional energy
(ii) Non-conventional energy
(iii) Non renewable energy
(A) Only (i) (B) Only (ii) & (iii)
(C) Only (ii) (D) Only (i) & (iii)
82. Which is the main constituent of bio-gas?
(A) Hydrogen sulfide (B) Propane
(C) Carbon dioxide (D) Methane
83. Which of the following is not a constituent of hydro electric power station?
(A) Generator (B) Turbine
(C) Boiler (D) Dam

84. Which of the following statement/s is/are correct regarding nuclear power station?
- (i) A generating station which converts the nuclear energy into the electric energy
 - (ii) It is a non conventional source of energy
 - (iii) The atomic materials utilized for nuclear fission are thorium and uranium.
- (A) Only (i) & (ii) (B) Only (i) & (iii)
(C) Only (iii) (D) All of the above (i), (ii) & (iii)
85. A solar module is made up of large number of
- (A) Solar panels (B) Solar cells
(C) Solar array (D) PV system
86. Which of the following component is not used in a thermal power plant?
- (A) Condenser (B) Penstock
(C) Economiser (D) Super heater
87. Which of the following statement/s is/are correct regarding Reaction turbines?
- (i) It is used for high heads
 - (ii) It is used for low and medium heads
 - (iii) Kaplan turbine is a reaction turbine
- (A) Only (i) (B) Only (iii)
(C) Only (ii) & (iii) (D) All of the above (i), (ii) & (iii)
88. Match the components of a tidal Power plant with their functions.
- | | |
|----------------|--|
| (a) Barrage | (1) Controls the flow of water |
| (b) Turbine | (2) Prevents unwanted water flow through dam |
| (c) Sluice | (3) Converts water energy into mechanical energy |
| (d) Embankment | (4) Traps tidal water |
- (A) (a)-(3), (b)-(1), (c)-(2), (d)-(4) (B) (a)-(4), (b)-(3), (c)-(1), (d)-(2)
(C) (a)-(2), (b)-(3), (c)-(1), (d)-(4) (D) (a)-(1), (b)-(3), (c)-(4), (d)-(2)
89. Which of the following is a penstock protection device used in hydro electric power plant?
- (A) Draft tube (B) Pelton wheel
(C) Surge tank (D) Both (A) and (C)
90. Match the following based on wind Power plant :
- | | |
|------------------------|--|
| (a) Rotor blades | (1) Provides excitation to generator |
| (b) Exciter | (2) Senses wind speed |
| (c) Turbine controller | (3) Convert wind energy into mechanical energy |
| (d) Generator | (4) Produces electrical energy |
- (A) (a)-(3), (b)-(1), (c)-(2), (d)-(4) (B) (a)-(2), (b)-(1), (c)-(4), (d)-(3)
(C) (a)-(2), (b)-(3), (c)-(1), (d)-(4) (D) (a)-(3), (b)-(1), (c)-(4), (d)-(2)

91. Which of the following is/are the main components of an electrical power supply system?

- (i) The power station / Plant
- (ii) The transmission lines
- (iii) The distribution systems

- (A) Only (i) & (ii)
- (B) Only (i) & (iii)
- (C) Only (ii) & (iii)
- (D) All of the above (i), (ii) & (iii)

92. Match the stages of the power supply system with their corresponding voltage levels :

Stage	Voltage
P Primary Transmission	(i) 11 kV
Q Primary Distribution	(ii) 132 kV / 220 kV / 400 kV
R Secondary Distribution	(iii) 415 V

Select the correct matching :

- (A) P-(ii), Q-(i), R-(iii)
- (B) P-(iii), Q-(i), R-(ii)
- (C) P-(iii), Q-(ii), R-(i)
- (D) P-(ii), Q-(iii), R-(i)

93. Which AC system is universally adopted for power transmission as an economical proposition?

- (A) Single-phase two-wire AC system
- (B) Three-phase four-wire AC system
- (C) Three-phase three-wire AC system
- (D) Single-phase three-wire AC system

94. The current in a feeder is :

- (A) Different in each point
- (B) Constant in each point
- (C) Zero at the end
- (D) Dependent on voltage drop only

95. Consider the following statements regarding DC transmission :

Statement I : DC transmission requires only two conductors.

Statement II: DC transmission has no skin effect on conductors.

Choose the correct answer.

- (A) Both Statement I and Statement II are true
- (B) Statement I is true, but Statement II is false
- (C) Statement I is false, but Statement II is true
- (D) Both Statement I and Statement II are false

96. Consider the following statements :

Statement I : Step-up and step-down transformation of DC voltage is possible in equipment like transformer.

Statement II : AC voltages can be conveniently stepped up or stepped down using transformers.

Choose the correct answer.

- (A) Both Statement I and Statement II are true
- (B) Statement I is true, but Statement II is false
- (C) Statement I is false, but Statement II is true
- (D) Both Statement I and Statement II are false

97. Which of the following is NOT an advantage of DC transmission?

- (A) It requires only two conductors
- (B) It has lower corona loss
- (C) It can't be stepped up or stepped down using transformers
- (D) It has no skin effect on conductors

98. Consider the following statements :

- (i) Effective resistance of AC transmission lines is increased due to skin effect.
- (ii) For the same value of voltage, insulating material on DC lines experience less stress as compared to those on AC transmission lines.
- (iii) AC transmission has no problem of inductance and capacitance.

Which of the above statements are correct?

- (A) Only (i) & (ii)
- (B) Only (i) & (iii)
- (C) Only (ii) & (iii)
- (D) All of the above (i), (ii) & (iii)

99. Which transmission system has lower voltage drop for the same load and sending-end voltage?

- (A) AC transmission
- (B) DC transmission
- (C) Single-phase AC transmission
- (D) Three-phase AC transmission

100. At the receiving end of an HVDC system, DC is converted into AC using a/an :

- (A) Inverter
- (B) Transformer
- (C) Converter
- (D) Rectifier

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