

[UPSSSC PRACTICE SET-2 ONLINE SOLUTION BY RAMAN SIR]

1. What is Pelton wheel?
- It is a high head turbine**
 - It is a medium head turbine
 - It is not a type of turbine
 - It is a low head turbine
- [UPPCL-JE-2015]
2. Which of the following has a speed of 3000 rpm or more in general?
- DC shunt motor
 - Universal motor**
 - Capacitor motor
 - Induction motor
- [UPPCL-JE-2015]
3. In order to increase field excitation, rheostat is connected in:
- Armature circuit
 - Field of shunt generator**
 - Supply circuit
 - Alternators circuits
- [UPPCL-JE-2015]
4. Ammeter is a circuit is connected:
- Parallel to resistance
 - In series**
 - Both in series and parallel
 - Parallel to circuit
- [UPPCL-JE-2015]
5. What is the rotor shaft of an induction motor generally made up of?
- High speed steel
 - Cast iron
 - Mild steel**
 - Silicon steel lamination
- [UPPCL-JE-2015]
6. What does the middle finger direct in Fleming's Left Hand Rule?
- Direction of rotation of conductor
 - Direction of magnetic flux
 - Direction of current flow in the conductor**
 - Direction of magnetic field
- [UPPCL-JE-2015]
7. What is the ratio of rms value to the average value of current called
- Periodic value
 - Form factor**
 - Maximum value
 - Phase factor
- [UPPCL-JE-2015]
8. Maximum energy will be produced on:
- Nuclear fusion of 1 kg uranium
 - Burning of 1 kg wood
 - Burning of 1 kg coal
 - Nuclear fission of 1 kg uranium**
- [UPPCL-JE-2015]
9. Which of the following controls the speed of turbine?
- Valve house
 - Alternator
 - Governor**
 - Power house
- [UPPCL-JE-2015]
10. If a 2 meter long conductor is moved with a velocity of 4 metre per second in a field of 5 Weber per square meter, then what will be the value of generated emf?
- 2.5 V
 - 40 V**
 - 10 V
 - 5 V
- [UPPCL-JE-2015]
11. A step up transformer
- does not work on mutual induction
 - increases input voltage**
 - reduces input voltage
 - has less turns in secondary winding than that in primary winding
- [UPPCL-JE-2015]
12. What is a motor that does not contain rotor winding?
- Hysteresis**
 - Stepper
 - Reluctance
 - Repulsion

- [UPPCL-JE-2015]
13. Device used in M.I. type instruments is:
a) Exponential scale
b) Low multiple scale
c) Linear scale
d) **Nonlinear scale**
- [UPPCL-JE-2015]
14. Which of the following motors is used in a vacuum cleaner?
a) Repulsion
b) Stepper
c) Hysteresis
d) **Reluctance**
- [UPPCL-JE-2015]
15. What is the unit of specific resistance?
a) **Ohm metre**
b) Ohm
c) Mho metre
d) mho
- [UPPCL-JE-2015]
16. What are the components of electric drives?
a) Control elements and Working machines
b) Working machine and Motor
c) **Control elements and Motor**
d) Power supply and Motor
- [UPPCL-JE-2015]
17. Single phase induction motor is also known as:
a) Single horse power motor
b) Multi horse power motor
c) Double horse power motor
d) **Fraction horse power motor**
- [UPPCL-JE-2015]
18. Which of the following cannot be measured using a multimeter?
a) **Capacitance**
b) Potential difference
c) Current
d) Resistance
- [UPPCL-JE-2015]
19. On whose principle does the DC generator work?
a) Biot Savart
b) **Faraday**
c) Lenz
d) Ohm
- [UPPCL-JE-2015]
20. Shaded ring made up of copper is used at potential coil of energy meter to
a) Increase power
b) Increase speed disk
c) Increase frequency
d) **For correct working of energy meter**
- [UPPCL-JE-2015]
21. What is limitation of shunt field control method?
a) **Only higher than the normal speed can be obtained**
b) Only lower than the normal speed can be obtained
c) Magnetic flux becomes half
d) Speed is independent of load
- [UPPCL-JE-2015]
22. The resistance of a conductor on increasing its length 3 times will
a) Be halved
b) Become one third
c) Be six times
d) **Be three times**
- [UPPCL-JE-2015]
23. DC generator is rated in:
a) **kW**
b) HP
c) kH
d) kVA
- [UPPCL-JE-2015]
24. What is Ampere's law used to determine?
a) To determine the direction of generated emf in a generator
b) To determine the direction of flow of current in an overhead line
c) To determine poles of electromagnet
d) **To determine magnetic field around the conductor**
- [UPPCL-JE-2015]
25. Vapour turbines convert energy of vapours into:
a) **Electrical energy**
b) Nuclear energy
c) Mechanical energy
d) Chemical energy
- [UPPCL-JE-2015]
26. What does the area under the load curve give?
a) Minimum demand
b) **Energy consumption**

- c) Maximum demand
- d) Average demand

[UPPCL-JE-2015]

27. In a single phase transformer the copper loss is 400 watt at 25% of load. Find the full-load copper loss?

- a) 400 Watt
- b) 1600 Watt
- c) 6400 Watt
- d) 3200 Watt

[UPPCL-JE-2015]

28. The resistance offered by a diode in forward biasing condition is:

- a) Very high
- b) Low
- c) Infinity
- d) Zero

[UPPCL-JE-2015]

29. What is the purpose of using zener diode?

- a) Use as voltage regulator
- b) For meter protection
- c) Amplifier
- d) Both a) and b)

[UPPCL-JE-2015]

30. In order to change speed in a slip ring induction motor

- a) Load is kept constant
- b) Number of poles should be increased
- c) Number of poles should be decreased
- d) Resistance is introduced in the circuit

[UPPCL-JE-2015]

31. The vapours of which of the following metals can be filled in gas discharge lamps?

- a) Mercury
- b) Silver
- c) Lithium
- d) Zinc

[UPPCL-JE-2015]

32. Restoring force in an electromagnetic relay is produced by

- a) Actuator
- b) Magnet
- c) Spring
- d) Beam

[UPPCL-JE-2015]

33. What is the resistance offered to AC by a capacitor called?

- a) Capacitive reactance

- b) Capacitance
- c) Impedance
- d) Resistance

[UPPCL-JE-2015]

34. Three phase supply can be converted into two phase by

- a) Relay
- b) Scott connection
- c) Main switch
- d) Introducing verriick

[UPPCL-JE-2015]

35. Which of the following is used in punching machines?

- a) DC differential motor
- b) DC shunt motor
- c) DC cumulative compound motor
- d) DC series motor

[UPPCL-JE-2015]

36. What is the main function of brushes in a DC generator?

- a) To collect the current
- b) To cool the machine
- c) To clean the machine
- d) To rotate shaft

[UPPCL-JE-2015]

37. What does the firing angle of SCR of a DC motor control?

- a) Field
- b) Input power
- c) Speed
- d) Voltage

[UPPCL-JE-2015]

38. What is the inverse of reactance called?

- a) Admittance
- b) Conductance
- c) Reluctance
- d) Susceptance

[UPPCL-JE-2015]

39. Power supply required for electro-deposition of metal is _____

- a) Pulsating
- b) Alternating
- c) Direct
- d) All of them

[UPPCL-JE-2015]

40. Variable losses in alternator are determined by:

- a) Iron losses
- b) Armature losses + series field losses
- c) Iron losses + armature losses

- d) Iron losses + mechanical losses
[UPPCL-JE-2015]
41. Moving coil instrument is a type of:
a) Integrating instrument
b) Recording instrument
c) Primary instrument
d) **Indicating instrument**
[UPPCL-JE-2015]
42. From where is the AC achieved in a rotating armature alternator?
a) **Slip rings**
b) Amature
c) Rotor
d) Commutator
[UPPCL-JE-2015]
43. A synchroscope describe the correct condition of synchronization
a) Anti clockwise
b) In the centre
c) Clockwise
d) **At stable condition**
[UPPCL-JE-2015]
44. What does the lack of rotor frequency in a squirrel cage induction motor result in?
a) **Decrease in rotor reactance**
b) Increase in rotor reactance
c) Constant power factor
d) Decrease in power factor
[UPPCL-JE-2015]
45. Synchronous speed is the speed at which:
a) Motor rotates
b) Commutator rotates
c) **Stator magnetic field rotates**
d) Rotor rotates
[UPPCL-JE-2015]
46. Which of the following is correct regarding series winding?
a) Thick wire and more turns
b) Thin wire and more turns
c) **Thick wire and less turns**
d) Thin wire and less turns
[UPPCL-JE-2015]
47. What is the torque that is available for doing work known as?
a) Armature torque
b) **Shaft torque**
c) Lost torque
d) Pole torque
[UPPCL-JE-2015]
48. The efficiency of thermal power plants increases by:
a) Excessive use of water
b) **Using high pressured steam**
c) Burning coal in excess
d) Decreasing the load on the plant
[UPPCL-JE-2015]
49. How can the range of voltmeter be increased?
a) By connecting capacitor in series
b) By connecting multiplier with shunt
c) **By connecting multiplier in series**
d) By connecting choke in series
[UPPCL-JE-2015]
50. While determining the iron losses, what must be kept in mind?
a) Both CC and PC are connected in parallel
b) **CC is connected in series and PC in parallel**
c) Both CC and PC are connected in series
d) CC is connected in parallel and PC in series
[UPPCL-JE-2015]
51. What is the melting point of copper in degree Celsius?
a) 420
b) 230
c) **1100**
d) 760
[UPPCL-JE-2015]
52. Current chopping generally happens in:
a) a vacuum circuit breaker
b) **an air blast circuit breaker**
c) an air break circuit breaker
d) an oil circuit breaker
[UPPCL-JE-2015]
53. If a centrifugal switch is open. It means
a) winding is grounded
b) switch is short
c) winding is short
d) **winding is open**
[UPPCL-JE-2015]
54. Which type of winding is used in DC shunt generator?
a) **Shunt field winding**
b) Compound field winding
c) Series field winding
d) Both shunt and series field winding
[UPPCL-JE-2015]

55. Which fault occurs in “melting or damage of gasket”?

- a) Sparking towards earth contact
- b) Burning of lamination
- c) **Oil leakage**
- d) Increase in zero load current

[UPPCL-JE-2015]

56. Which of the following is not used as a coolant in nuclear power plants?

- a) Helium
- b) Sodium
- c) Lithium
- d) **Magnesium**

[UPPCL-JE-2015]

57. PMMC meter is fitted in:

- a) A voltmeter
- b) A wattmeter
- c) **A multimeter**
- d) An ammeter

[UPPCL-JE-2015]

58. If the load is reduced to half in a transformer, then the copper losses

- a) Are halved
- b) **Become one fourth**
- c) Remain unchanged
- d) Are doubled

[UPPCL-JE-2015]

59. Which of the following is not a switch gear component?

- a) Relay
- b) **Transistor**
- c) Transformer
- d) Fuse

[UPPCL-JE-2015]

60. The value of power factor in a ideal capacitor is:

- a) Zero lagging
- b) Infinity
- c) Unity
- d) **Zero leading**

[UPPCL-JE-2015]

61. If the field of synchronous motor is running at under excitation condition, then the power factor will be

- a) **Moving backward**
- b) Moving forward
- c) Unity
- d) Zero

[UPPCL-JE-2015]

62. If the supply terminals of a DC series motor are interchanged, then the

- a) Motor starts working like a DC generator
- b) Rotating direction of motor changes
- c) **Rotating direction of motor remains the same**
- d) Motor will burn

[UPPCL-JE-2015]

63. What is the voltage used in secondary transmission?

- a) 440 kV
- b) **33 kV**
- c) 11 kV
- d) 230 V

[UPPCL-JE-2015]

64. In a two wattmeter method if readings are equal than load power factor

- a) **zero**
- b) 0.5
- c) 0.58
- d) 0.9

[UPPCL-JE-2015]

65. Interpole is used to:

- a) Change the direction of armature
- b) **Receive smooth commutation**
- c) Decrease the rate of change of current
- d) Increase spark in commutator

[UPPCL-JE-2015]

66. What are containers of cell made up of?

- a) Iron
- b) **Zinc**
- c) Aluminium
- d) Steel

[UPPCL-JE-2015]

67. Which of the following is not a type of motor starter?

- a) **Single point starter**
- b) Three point starter
- c) Four point starter
- d) Two point starter

[UPPCL-JE-2015]

68. Three resistance each of R ohm connected in delta than equivalent star value for each resistance

- a) R
- b) **3 R**
- c) R/3
- d) 2 R

[UPPCL-JE-2015]

69. Solar cell is a _____.

- a) **Photovoltaic device**
- b) Photoconductive device
- c) Photo emissive device
- d) Photoradiative device

[UPPCL-JE-2015]

70. Ferranti effect is seen in which transmission line?

- a) **Long transmission line**
- b) Medium transmission line
- c) Short transmission line
- d) Both a) and b)

[UPPCL-JE-2015]

71. SCR is a device

- a) **Semi-controlled**
- b) Full-controlled
- c) Uncontrolled
- d) None of these

[HPSSC-JE-2016]

72. For a 3-phase transmission efficiency of a line decreases will

- a) Increase in load power factor
- b) **Decrease in load power factor**
- c) Does not vary with power factor
- d) Increase in load current

[HPSSC-JE-2016]

73. A 3-phase synchronous motor has

- a) High starting torque
- b) Low starting torque
- c) **No starting torque**
- d) Low starting current

[HPSSC-JE-2016]

74. In a synchronous motor

- a) **The rotor mmf and stator mmf are stationary with respect to each other**
- b) Stator mmf rotates slightly faster than rotor mmf
- c) Rotor mmf rotates slightly faster in comparison to stator mmf
- d) None of these

[HPSSC-JE-2016]

75. When does a synchronous motor operate with leading power factor electric current?

- a) While it is under-excited
- b) **While it is overexcited**
- c) While it is critically excited
- d) While it is heavily loaded

[HPSSC-JE-2016]

76. Slip of induction motor is 0.02 and the stator supply frequency is 50 Hz. The frequency of rotor induced e.m.f. will be

- a) 10 Hz
- b) 50 Hz
- c) **1 Hz**
- d) 25 Hz

[HPSSC-JE-2016]

77. Distance relays operation is dependent upon

- a) Ratio of current to current
- b) **Ratio of voltage to current**
- c) Ratio of voltage to voltage
- d) Ratio of voltage to resistance

[HPSSC-JE-2016]

78. For tramways, the return circuit is through

- a) Cable
- b) **Rails**
- c) Neutral
- d) Common earthing

[HPSSC-JE-2016]

79. A device whose characteristics are close to ideal voltage source

- a) Diode
- b) FET
- c) Transistor in CB
- d) **Zener Diode**

[HPSSC-JE-2016]

80. The function of snubber circuit is to

- a) **Suppress $\frac{dv}{dt}$**
- b) Increase $\frac{dv}{dt}$
- c) Decrease $\frac{dv}{dt}$
- d) None of these

[HPSSC-JE-2016]

81. What is the dielectric constant of Mica?

- a) **200**
- b) 100
- c) 3-8
- d) 1-2

[HPSSC-JE-2016]

82. Galvanized steel is generally used as

- a) Stray wire
- b) Earth wire
- c) Structural component
- d) **All of the above**

[HPSSC-JE-2016]

83. In a star-delta starting of an induction motor

- a) Reduced voltage is applied to the stator
- b) Applied voltage per stator phase is 57.7% of the line voltage**
- c) Line voltage is 57.7% of stator voltage
- d) Resistance is inserted in the rotor

[HPSSC-JE-2016]

84. Which of the following methods of speed control is not affected through stator side?

- a) Change of rotor resistance**
- b) Change of number of pole
- c) Change of supply voltage
- d) Change of supply frequency

[HPSSC-JE-2016]

85. The wound rotor type induction motor is used for _____ speed operation

- a) Constant
- b) Maximum
- c) Minimum
- d) Variable**

[HPSSC-JE-2016]

86. Pole changing methods are suitable only for _____ type induction motor.

- a) Wound rotor
- b) Squirrel cage**
- c) Linear
- d) None of the above

[HPSSC-JE-2016]

87. Buchholz's relay protect from

- a) Winding to winding fault
- b) All type of internal fault**
- c) Turn to turn fault
- d) None of these

[HPSSC-JE-2016]

88. The capacity of cranes is expressed in

- a) Span
- b) Type of derive
- c) Tones**
- d) Any of the above

[HPSSC-JE-2016]

89. A saturable core reactor is basically a

- a) Variable resistor
- b) Step down transformer
- c) Thermal relay
- d) Variable impedance**

[HPSSC-JE-2016]

90. In case of low and medium voltage circuit permissible voltage variation is:

- a) 1%

- b) 5%**
- c) 10%
- d) 15%

[HPSSC-JE-2016]

91. The earth potential is taken as

- a) Infinite
- b) Supply voltage
- c) 1 volt
- d) Zero**

[HPSSC-JE-2016]

92. MIG welding is

- a) Mild steel inert gas
- b) Medium inert gas
- c) Maximum inner depth gas welding
- d) Metal inert gas**

[HPSSC-JE-2016]

93. A wire of resistance R has its length and cross-section both doubled resistance will become

- a) 0.5 R
- b) R**
- c) 2R
- d) 4 R

[HPSSC-JE-2016]

94. Three elements having conductance G_1 , G_2 and G_3 are connected in parallel. Their combined conductance will be

- a) $(G_1 + G_2 + G_3)^{-1}$
- b) $G_1 + G_2 + G_3$**
- c) $1/G_1 + 1/G_2 + 1/G_3$
- d) $(1/G_1 + 1/G_2 + 1/G_3)^{-1}$

[HPSSC-JE-2016]

95. Which of the following has negative temperature coefficient?

- a) Paper**
- b) Aluminium
- c) Copper
- d) Silver

[HPSSC-JE-2016]

96. Which of the following has positive temperature coefficient?

- a) Germanium
- b) Gold**
- c) Paper
- d) Rubber

[HPSSC-JE-2016]

97. The substance used to slow down the speed of neutrons in a nuclear reactor during fission reaction is called

- a) Coolant
- b) Liquid
- c) Moderator
- d) Control element

[HPSSC-JE-2016]

98. Stator core of an induction motor is made up of

- a) Laminated cast iron
- b) Mild steel
- c) Silicon steel stampings
- d) Soft wood

[HPSSC-JE-2016]

99. A circuit that operates in such a way that its output is high when both inputs are different

- a) EX-OR
- b) NAND
- c) NOR
- d) AND

[HPSSC-JE-2016]

100. How many inputs does a full adder have?

- a) 2
- b) 4
- c) 8
- d) 3

[HPSSC-JE-2016]

