

**PSC Electrician - Agriculture  
Examination  
Previous Year Question Paper**

*Exam Name: Electrician - Agriculture*

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***Medium of Questions: English***



152/2016

1. Repulsion motor is provided with :  
(A) Commutator (B) Centrifugal switch  
(C) Capacitor (D) Squirrel cage rotor
  
2. Whenever a poly phase motor is loaded the :  
(A) induced emf in the rotor increases and its frequency falls  
(B) induced emf in the rotor increases and its frequency rises  
(C) induced in the rotor remains constant  
(D) induced emf in the rotor decreases and its frequency increases
  
3. For three resistance are connected in three phase, the power consumed will be more in \_\_\_\_\_ connection.  
(A) star delta (B) star (C) delta (D) delta-star
  
4. Synchronous motors run on leading power factor when connected in :  
(A) under excitation (B) rated excitation  
(C) fully loaded (D) over excitation
  
5. The out put voltage of a solar cell is approximately :  
(A) 1.2 V (B) 0.5 V (C) 2.1 V (D) 3 V
  
6. Slip rings are generally made of :  
(A) phosphor bronze (B) aluminum  
(C) copper (D) carbon
  
7. The hydrometer reading of fully charged lead acid battery :  
(A) 1.2 (B) 1.5 (C) 1.11 (D) 1.26
  
8. In induction motor percentage slip is maximum at :  
(A) low speed (B) medium speed  
(C) stand still condition (D) synchronous speed
  
9. Economiser is a part of :  
(A) hydel PS (B) nuclear PS (C) thermal PS (D) diesel PS

10. The crawling in an induction motor is caused by :  
(A) improper design of the machine (B) low voltage supply  
(C) high load (D) harmonics developed in the motor
11. The commutator segments are placed in :  
(A) rotor (B) stator (C) armature (D) field
12. Reduction in the capacitance of capacitor start motor results in reduced :  
(A) noise (B) starting torque  
(C) speed (D) armature reaction
13. In an ac circuit the ratio of kW/kVA represents :  
(A) power factor (B) load factor (C) starting torque (D) diversity factor
14. The unit of inductance is :  
(A) OHM (B) MHO (C) HENRY (D) FARAD
15. Ear to ear resistance of human body :  
(A) 400 (B) 1 kilo ohms (C) 650 ohms (D) 100 ohms
16. Centrifugal switches is provided for disconnecting the auxiliary winding in a :  
(A) capacitor run motor (B) capacitor start motor  
(C) reluctance motor (D) hysteresis motor
17. Transformer core is laminated to :  
(A) reduce the copper loss (B) reduces the eddy current loss  
(C) reduces the core loss (D) hysteresis loss
18. Which type of loss is **not** common to transformer and rotating machines ?  
(A) eddy current loss (B) copper loss  
(C) hysteresis loss (D) windage loss

19. The difference between the synchronous speed and the actual speed of an induction motor is known as :
- (A) slip (B) regulation (C) black lash (D) lag
20. Three resistances of 30, 15, 5, ohms are connected in parallel, their combined resistance will be :
- (A) greater than 30 ohm (B) between 30 to 15 ohm  
(C) less than 5 ohm (D) between 15 to 5 ohm
21. Which of the following acts as a depolarizer in a dry cell ?
- (A) zinc chloride (B) carbon powder  
(C) ammonium chloride (D) manganese dioxide
22. Efficiency of a power transformer is of the order of :
- (A) 50% (B) 75% (C) 98% (D) 45%
23. The strongest dia-magnetic material :
- (A) sulphur (B) bismuth (C) glass (D) graphite
24. The magnitude of torque developed by a three phase induction motor depends upon :
- (A) rotor current, rotor emf, rotor pf  
(B) supply voltage, stator current, frequency  
(C) number of poles, speed, frequency  
(D) synchronous speed, rotor speed, frequency
25. Rheostat method of speed control of induction motor is used in :
- (A) squirrel cage IM (B) slip ring IM (C) double cage IM (D) all of the above
26. In a three phase IM the number of poles in the rotor winding are :
- (A) zero (B) less than stator poles  
(C) equal to stator poles (D) more than stator poles

27. If the air gap of induction motor is increased :
- (A) the magnetizing current will increase
  - (B) the pf will increase
  - (C) speed of the motor will increase
  - (D) friction and windage loss will increases
28. Isolate fire from the supply of oxygen by blanketing it with foam, sand etc.
- (A) starving
  - (B) cooling
  - (C) spray water
  - (D) smothering
29. What is the condition of ohm's law ?
- (A) constant resistance
  - (B) constant voltage
  - (C) constant current
  - (D) constant temperature
30. Power  $p =$
- (A) energy/time
  - (B) energy/voltage
  - (C) current/voltage
  - (D) time/voltage
31. Moving coil instruments are use :
- (A) ac only
  - (B) both ac/dc
  - (C) dc only
  - (D) none of these
32. Low resistance means :
- (A) up to 10 ohm
  - (B) 1 ohm and below
  - (C) 1000 ohm
  - (D) 500 ohm
33. Unit of resistivity :
- (A) ohm
  - (B) ohm-m
  - (C) ohm  $m^2$
  - (D) ohm/m
34. Kelvin bridge is used for measure :
- (A) capacitance
  - (B) low resistance
  - (C) inductance
  - (D) insulation resistance
35. Resistivity of eureka at  $20^\circ C$  :
- (A)  $2.8 \times 10^{-8}$
  - (B)  $1.72 \times 10^{-8}$
  - (C)  $49 \times 10^{-8}$
  - (D)  $20.2 \times 10^{-8}$

36. Application of series parallel combination :
- (A) current divider (B) maximum resistance  
(C) power divider (D) voltage divider
37. An earthing electrode usually made of :
- (A) PVC pipe (B) carbon plate (C) glass rod (D) metal plate
38. The color of protective conductor :
- (A) green - yellow (B) green - red (C) green - blue (D) green - black
39. The color of middle wire of 3 wire DC circuit is :
- (A) red (B) black (C) blue (D) green
40. Example of primary cell :
- (A) Lead acid cell (B) Edison cell (C) Voltaic cell (D) Nickel - iron cell
41. The amp-hour efficiency of lead acid cell :
- (A) 75% (B) 90 - 95% (C) 80 - 85% (D) 60 - 65%
42. High rate discharge tester consists of :
- (A) low range ammeter (B) high range voltmeter  
(C) low range voltmeter (D) high range ammeter
43. The color of fresh Silica gell is :
- (A) Blue (B) Red (C) Black (D) Light pink color
44. Imaginary line joining the two poles of a magnet :
- (A) magnetic equator (B) magnetic pole  
(C) magnetic lines (D) magnetic field

45. Rotor copper loss of a three phase induction motor is :
- (A) Fractional slip  $\times$  input power to the rotor
  - (B) Fractional slip  $\times$  output of the rotor
  - (C) Input power  $\times$  output power
  - (D) All the above
46. 1 Metric horse power is :
- (A) 742 W
  - (B) 735 W
  - (C) 735.6 W
  - (D) 746 W
47. The back emf set up in the stator of a synchronous motor will depend on :
- (A) rotor speed only
  - (B) stator speed only
  - (C) rotor emf
  - (D) rotor excitation
48. The armature Wdg of repulsion motor is excited :
- (A) resistively
  - (B) inductively
  - (C) conductively
  - (D) capacitively
49. The main disadvantage of shaded pole motor :
- (A) low starting torque
  - (B) little over load capacity
  - (C) low efficiency
  - (D) all the above
50. The armature flux opposes the main flux is in synchronous machine when the PF is :
- (A) unity
  - (B) zero lagging
  - (C) zero leading
  - (D) 0.8 lagging
51. Dielectric strength of a medium is :
- (A) Joules/m<sup>2</sup>
  - (B) Coulomb/m<sup>2</sup>
  - (C) kV/mm
  - (D) Volt/m<sup>2</sup>
52. Electric intensity is expressed as :
- (A) webber
  - (B) Volt/m
  - (C) emf
  - (D) coulomb
53. Whenever two charges are separated there exist :
- (A) magnetic field
  - (B) electric field
  - (C) electrostatic field
  - (D) emf

54. Potential inside the hollow charged sphere :
- (A) less than its surface (B) greater than on its surface  
(C) same as on its surface (D) zero
55. Capacitance in any circuit is opposition to :
- (A) voltage (B) current flow  
(C) any change in current (D) any change in power
56. The simple measuring instrument used to transfer measurement from the steel rule to object :
- (A) try-square (B) calliper (C) scriber (D) punch
57. 2 ohm resistance having current of 2 A will dissipate the power of :
- (A) 8 W (B) 8 J (C) 2 W (D) 4 W
58. If the diameter of a wire is doubled keeping the length constant the resistance :
- (A) becomes one fourth (B) become twice  
(C) remains same (D) becomes 4 times
59. Which of the following is linear and bilateral element ?
- (A) Semiconductor (B) resistor (C) electron tube (D) transistor
60. Why accumulators are preferred to pmy cell in motor car ?
- (A) they are bulk (B) they have high internal resistance  
(C) they can be recharged (D) all the above
61. Sedimentation occurs in lead acid cell to :
- (A) over charging at high rate (B) over charging at slow rating  
(C) no use for longer period (D) slow charged rate
62. Kirchhoff's law are valid for :
- (A) linear circuit (B) non-linear circuit  
(C) both linear and non-linear circuit (D) passive circuit

63. The algebraic sum of all IR drops and emf in any closed loop of a network as per KVL is :  
(A) +ve (B) zero (C) -ve (D) +ve or -ve
64. Form factor is the ratio of :  
(A) average value/rms value (B) average value  $\times$  rms value  
(C) instantaneous value/rms value (D) rms value/average value
65. The power factor of the inductive load is :  
(A) leading (B) lagging (C) unity (D) zero
66. A choke coil has :  
(A) high inductive, high resistance (B) low inductive, low resistance  
(C) low inductive, high resistance (D) high inductive, low resistance
67. A choke is used for limiting current in :  
(A) AC ckt only (B) DC ckt only  
(C) both AC and DC (D) either AC or DC
68. Impedance at series resonance circuit :  
(A) maximum (B) average (C) minimum (D) all the above
69. Power factor is defined as :  
(A) kVA/kVAR (B) kVA/kW (C) kW/kVA (D) kW/kVR
70. 2 Wattmeter method measuring power, 2 meters read equal and opposite reading the load power factor :  
(A) zero (B) 0.5 (C) unity (D) above 0.5
71. The secondary current of 400 kVA, 11kV/433V, 3 phase transformer is about :  
(A) 420 A (B) 533 A (C) 666.5 A (D) 840 A

72. The current rating of 400 mm<sup>2</sup> AYFY cable is :  
(A) 400 A                      (B) 435 A                      (C) 305 A                      (D) 335 A
73. The maximum efficiency of distribution transformer is :  
(A) 1/4<sup>th</sup> load                      (B) full load                      (C) 3/4<sup>th</sup> load                      (D) half load
74. Unit of luminous intensity :  
(A) lumen                      (B) lux                      (C) candela                      (D) lumen/m
75. The most efficient lamp :  
(A) graphene                      (B) LED  
(C) CFL                      (D) sodium vapour lamp
76. The larger transformer stepped core arrangement is used to minimize the use of :  
(A) core                      (B) copper                      (C) hysteresis loss                      (D) core loss
77. Examine the Commutator and brushes :  
(A) weekly maintenance                      (B) monthly maintenance  
(C) daily maintenance                      (D) yearly maintenance
78. In DC generator the voltage drop of copper-carbon brush is about :  
(A) 1.6 V                      (B) 2 V                      (C) 1.75 V                      (D) 0.3 V
79. Alternator voltage regulation is determined by emf method. It is due to :  
(A) Rothert                      (B) Behn-Eschenberg  
(C) Faraday                      (D) Pointer
80. The starting torque of capacitor start, capacitor run is about :  
(A) 200% of FL torque                      (B) 50% of FL torque  
(C) 300% of FL torque                      (D) 100% of FL torque

81. The first Director General of Archaeological Survey of India :  
(A) Mountbatten (B) Alexander Cunningham  
(C) Wheeler (D) Ernest Mackey
82. Name the first Indian to win the World Amateur Billiards Title.  
(A) Wilson Jones (B) Kamaljit Sandhu  
(C) Ravi Shastri (D) K. Malleswari
83. In which place the Great Victoria Desert is located ?  
(A) Canada (B) Africa (C) Asia (D) Australia
84. Name the Kerala ruler who gave his country to Sri Padmanabha as Tripadidana.  
(A) Saktan Tampuran (B) Swati Tirunal  
(C) Marthanda Varma (D) Rama Varma
85. Who was known as Frontier Gandhi ?  
(A) Abdul Kalam Azad (B) Muhammed Iqbal  
(C) Khan Abdul Ghafar Khan (D) Patel
86. In which year Mountbatten Plan was announced in India ?  
(A) 1947 (B) 1946 (C) 1945 (D) 1948
87. Director of the film "Tamas" explaining about partition of India :  
(A) Satyajit Rai (B) Govind Nihalani  
(C) Mrinali Sen (D) Narain Bharati
88. In which year Sadhujanaparipalanayogam established ?  
(A) 1903 (B) 1905 (C) 1907 (D) 1910

89. Name the event which is related to Savarna Jatha.
- (A) Shanar Agitation (B) Quit India Movement  
(C) Attingal Revolt (D) Vaikom Satyagraha
90. What is the name of spice which is called as "Yavanapriya" ?
- (A) Ginger (B) Pepper (C) Cinnamon (D) Cardamom
91. Who was the Viceroy of India during the time of Round Table Conferences ?
- (A) Lord Canning (B) Ramsay Mac Donald  
(C) Lord Curzon (D) Lord Irvin
92. The First person who offer Individual Satyagraha in Indian Freedom Movement :
- (A) Vinobha Bhave (B) Dr. B.R. Ambedkar  
(C) Vallabhbhai Patel (D) Narendra Dutta
93. In Which Year Historic Lahore session of Indian National Congress held ?
- (A) 1919 (B) 1929 (C) 1930 (D) 1942
94. Which is the Name of Commission sent to India to enquire about the work of Govt. of India Act of 1919 ?
- (A) Crips Mission (B) Wardha Commission  
(C) Simon Commission (D) Cabinet Mission
95. Which is the birth place of Mar Kuriakose Elias Chavara ?
- (A) Bharanaganm (B) Mannanam (C) Mezhatthur (D) Kainakari
96. Pattanam was situated in the banks of river \_\_\_\_\_.
- (A) Pamba (B) Bharatapuzha (C) Periyar (D) Kurumali puzha

97. The Yarkungzangbo river in India is known as \_\_\_\_\_.  
(A) Brahmaputra (B) Mahanadi (C) Kaveri (D) Sindhu
98. The Power to Prorogue the Lok Sabha rests with \_\_\_\_\_.  
(A) Speaker (B) President (C) Supreme Court (D) Prime minister
99. Who is the Founder of Samatwa Samaj ?  
(A) Chattampi swamikal (B) Ayyankali  
(C) Vaghbhatananda (D) Vaikunda Swamikal
100. The Political Guru of Mahatma Gandhi :  
(A) Gokhale (B) Tilak  
(C) Surendra Nath Banerjee (D) Dadabhai Naoroji

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