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1. The value of absolute permittivity is :

    (A) 8.854×10^{-12} H/M

    (B) 8.854×10^{-12} F/M

    (C) $4\eth \times 10^{-7}$ H/M

    (D) $4\eth \times 10^{-7}$ F/M

2. The equation for find out the energy stored in a coil is :

    (A) $\frac{1}{2}$ LI^2

    (B) $\frac{1}{2}$ L$\varnothing^2$

    (C) $\frac{1}{2}$ LB^2

    (D) $\frac{1}{2}$ LI

3. The Dummy coil used in a DC generator :

    (A) To compensate Demagnetizing effect

    (B) To compensate cross magnetizing effect

    (C) To reduce commutation

    (D) For Mechanical balancing

4. The transformer oil used in transformer provides :

    (A) Insulation and lubrication

    (B) Cooling and lubrication

    (C) Insulation and cooling

    (D) Cooling, Insulation and lubrication

5. The critical resistance of a DC shunt generator is the resistance of :

    (A) Armature

    (B) Field

    (C) Load

    (D) None of these

6. The polarity of interpole in the case of a DC generator is :

    (A) Same as that of main pole ahead

    (B) Same as that of main pole behind

    (C) North pole or South pole

    (D) None of these

7. Which characteristic of a motor is mainly considered for its industrial application?

    (A) Electrical characteristic

    (B) Power of motor

    (C) Speed torque characteristic

    (D) Over all characteristics

8. Ward – Leonard Method of Speed control is basically a:

    (A) Frequency control method

    (B) Voltage control method

    (C) Current control method

    (D) Flore control method

9. The Primary equivalent of Secondary current I_2 of a transformer in the equivalent circuit of transformer is :

(A) KI_2

(B) I_1/K

(C) I_2/K

(D) K^2I_2

10. In a transformer the half load copper loss is 600 W. It's full load copper loss will be :

(A) 600 Watt

(B) 1200 Watt

(C) 2400 Watt

(D) 300 Watt

11. Condition for maximum efficiency in a transformer is :

(A) $\dfrac{R_{01}}{VCOS\,\phi} = \dfrac{W_1}{VI\,COS\phi}$

(B) $\dfrac{R_{01}}{X_{01}} = \dfrac{W_1}{X_{02}}$

(C) $\dfrac{R_{02}}{VICOS\,\phi} = \dfrac{W_1}{V_1\,I_1COS\phi_1}$

(D) $\dfrac{R_{01}}{V_1COS\,\phi_1} = \dfrac{W_1}{V_1\,I_1^2\,COS\phi_1}$

12. When the frequency is doubled, what are the change in eddy current and hysteresis loss :

(A) Hysteresis loss doubled, Eddy current loss doubled

(B) Hysteresis loss doubled, Eddy current loss quadrappled

(C) No change in hysteresis and Eddy current loss

(D) Hysteresis remaining same Eddy current loss reduced to half

13. The most economical connection for small and high voltage transmission is :

(A) Star – Delta

(B) Delta – Star

(C) Star – Star

(D) Delta – Delta

14. A 100 KVA Delta transformer one of the phase of secondary is get out of order. How much load it can carry :

(A) 100 KVA

(B) 50 KVA

(C) 67.3 KVA

(D) 57.7 KVA

15. The frequency of Rotor Current at the time of starting of an induction Motor is :

(A) Supply frequency

(B) Slip frequency

(C) 1/Slip frequency

(D) None of these

16. In two watt meter method of power measurement one Watt meter (W2) shows negative reading to get actual reading :

(A) W1 + W2

(B) W1 – W2

(C) W1 only

(D) W2 only

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17. The condition for maximum running torque for a 3 phase induction motor is :

    (A) R2 = SX2   (B) R2 = X2

    (C) R2 = Xo2   (D) X2 = Xo2

18. In a vibrating reed type frequency meter the frequency of supply reads through vibration, the vibration of desired frequency depends upon :

    (A) Width of the reed   (B) Voltage

    (C) Type of core   (D) Length of the reed

19. In induction type watt meter the copper shading Band used for :

    (A) Uniforms flux distribution

    (B) Damping purpose

    (C) Produce exact 90° phase difference between voltage and current

    (D) To reduce stray magnetic error

20. —————— is not a standard sweep of ceiling fan.

    (A) 1250 mm   (B) 1400 mm

    (C) 1050 mm   (D) 1200 mm

21. What are the tests conducted to draw the circle diagram of an induction motor?

    (A) SC test and OC test

    (B) Swim bearns test

    (C) No load test, short circuit test, stator resistance test

    (D) Short circuit test, back to back test

22. The joint used in over head line where considerable tensile strength required is :

    (A) Brittania joint   (B) Straight married joint

    (C) Straight running joint   (D) Brittania T joint

23. In electricians solder the percentage of tin and lead is :

    (A) 60% lead 40% tin   (B) 60% tin 40% lead

    (C) 40% tin 60% copper   (D) 40% zinc 60% tin

24. In an induction motor the phenomenon found that the motor having a tendency to rotate 1/7th of its normal speed is called :

    (A) Cogging   (B) Phase locking

    (C) Hunting   (D) Crowling

25. In repulsion motor the direction of rotation changed by changing :

    (A) Brush position

    (B) Field position

    (C) Armature position

    (D) By inter changing any winding connection

26. The speed of universal motor at no load in about :

    (A) 3000 rpm   (B) 1500 rpm

    (C) 1000 rpm   (D) 20000 rpm

27. As per IE rule the load in each power sub circuit not exceed :

    (A) 2500 w   (B) 3000 w

    (C) 8000 w   (D) 4000 w

28. The socket outlet shall be provide in a bathroom at a height not less than :

    (A) 1.2 meter   (B) 1.5 meter

    (C) 1.3 meter   (D) 2 meter

29. The speed control obtained in domestic mixer grinder is :

    (A) Variable voltage control   (B) Tapped field control

    (C) Flux control method   (D) Armature diverter method

30. Plummet is a measuring tool used for :

    (A) Horizontal distance   (B) Vertical distance

    (C) True horizontal position   (D) True vertical position

31. The speed of turbo generator is usually :

    (A) 300 rpm   (B) 1000 rpm

    (C) 3000 rpm   (D) 6000 rpm

32. Among them which is not a slandered size of PVC conduit :

    (A) 15 mm   (B) 19 mm

    (C) 32 mm   (D) 25 mm

33. V curve of a three phase synchronous motor is the relation between :

    (A) Voltage and current   (B) Speed and No of poles

    (C) Voltage and No of poles   (D) Field current and armature current

34. The head of high head hydroelectric power plant :

    (A)   100 m   (B)   200 m

    (C)   80 m   (D)   30 m

35. Pumped storage power plant belongs :

    (A)   Base load power plant

    (B)   Peak load power plant

    (C)   Either peak load or base load power plant

    (D)   None of these

36. The coolant used in fast breeder reactor is :

    (A)   Cadmium   (B)   Water

    (C)   Hard water   (D)   Sodium

37. In long and medium Tran's mission line the receiving end voltage is greater than sending end voltage this effect is called :

    (A)   Ferranti effect   (B)   Corona effect

    (C)   Strobe – scopic effect   (D)   Skin effect

38. The type of insulator used submarine cable is :

    (A)   Rubber   (B)   PVC

    (C)   Gutta-percha   (D)   Impregnated paper

39. SL type cables are used up to :

    (A)   66 kv   (B)   33 kv

    (C)   11 kv   (D)   132 kv

40. The fusing factor of HRC fuse is :

    (A)   1.11   (B)   1.21

    (C)   1.1   (D)   1.25

41. The correct sequence of the conducting material on the basis of conducting is :

    (A)   Silver, copper, gold, aluminum   (B)   Silver, gold, copper, aluminum

    (C)   Silver, copper, aluminum, gold   (D)   Silver, aluminum, copper, gold

42. Among them which material having highest die electric strength :

    (A) Porcelain   (B) Mica

    (C) Ebonite   (D) Rubber

43. For a human body the ear to ear resistance is about —————— ohm.

    (A) 100 ohm   (B) 500 ohm

    (C) 1000 ohm   (D) 800 ohms

44. The limiting temperature of class a insulator is :

    (A) 120° C   (B) 105° C

    (C) 95° C   (D) 135° C

45. Constantum is the alloy contain :

    (A) 60% copper & 40% tin   (B) 40% nickel & 60% zinc

    (C) 40% copper & 60% Zinc   (D) 60% copper & 40% nickel

46. The insulating material used for the preparation of cable joint is :

    (A) Coal tar compound   (B) Rubber compound

    (C) PVC compound   (D) Bitumenes compound

47. The ratio of mmf to reluctance is called :

    (A) Flux density   (B) Permeability

    (C) Flux   (D) Magnetic leakage

48. The tumbrule of measurement of insulation resistance of an installation should be not less than :

    (A) 500 kilo ohm   (B) 2 mega ohm

    (C) 1 mega ohm   (D) 50/no of outlets

49. The average voltage drop of a soft graphate brush in a DC generator is :

    (A) 2 volt   (B) 1.6 volt

    (C) 1.1 volt   (D) 2.2 volt

50. A magnetic material having large area of hysterisis loop, the material having :

    (A) Low permeability high retentivity   (B) High permeability low retentivity

    (C) Low permeability low retentivity   (D) High permeability high retentivity

51. Flashing means :

    (A) Create residual magnetism in a dc generator

    (B) Making permanent magnet

    (C) Initial charging method of lead acid battery

    (D) Failure of insulator in transmission line

52. The equation for back emf in a DC generator Eb = :

    (A) $\dfrac{\varnothing ZN}{600} \times \dfrac{P}{A}$

    (B) $V + Ia\,Ra$

    (C) $\dfrac{\varnothing ZN}{60} \times \dfrac{P}{A}$

    (D) $IA\,Ra - V$

53. In the case of extra high voltage how much voltage can be permissible in the case of higher voltage regulation :

    (A) 12%

    (B) 12.5%

    (C) 10%

    (D) 6%

54. Smoothening is the fire exchanging process by which :

    (A) Use water for fire extinguishing

    (B) Cooling the fire using fire extinguishers

    (C) Prevent the supply of fuel to the fire

    (D) Isolate the fire from the supply of oxygen

55. The current through the holding coil of a 4 point starter is limited by :

    (A) Field coil

    (B) Resistance

    (C) Starting resistance

    (D) Holding coil only

56. The class of measuring instrument that used for industrial and panel board application is :

    (A) Class 0.1

    (B) Class 1

    (C) Class 0.5

    (D) Classes –2

57. Among them which method of measurement is not used for low resistance measurement :

    (A) Kelvins bridge

    (B) Pottentiometer method

    (C) Wheat stone bridge

    (D) Ammeter volt meter method

58. The effective value of alternating current is :

    (A) 0.707 I max (B) 0.606 I max

    (C) 1.1 I max (D) 1.414 I max

59. The IS code of earthing is :

    (A) IS 3034 (B) IS 0334

    (C) IS 3043 (D) IS 3304

60. The depolarizer used in leclanche cell is :

    (A) Zn_2O_2 (B) ZnO_2

    (C) Mn_2O_2 (D) MnO_2

61. When four no of 2v, 4 Ah cells are connected in parallel, what will be it's Ah capacity :

    (A) 4 Ah (B) 8 Ah

    (C) 2 Ah (D) 16 Ah

62. Boost charging method of battery is used to the battery for charging :

    (A) Over discharge battery (B) Initial charging of battery

    (C) For charging a dead cell (D) For normal charging of a battery

63. For magnetic shielding which material is used :

    (A) Steel (B) Iron

    (C) Cobalt (D) Nickel

64. Mica capacitors are best suited for :

    (A) Low frequency application

    (B) Low captors value required application

    (C) As a low pass filter

    (D) High frequency application

65. For a fine hacksaw blade the pitch is :

    (A) 0.8 mm (B) 1.0 mm

    (C) 1.4 mm (D) 1.2 mm

66. In a megger the current coil develop torque under the influence of permanent magnet is :

    (A) Anti clockwise direction (B) No torque produced

    (C) Clockwise direction (D) Thus clockwise or anti clockwise

67. The Apparent power mentioned in the name plate of a CT in volt ampere at specified power factor is :

    (A) CT rating   (B) Burden

    (C) Fault KVA   (D) KVA rating

68. The primary and secondary voltage of a Delta - star transformer is out of phase with a degree of :

    (A) 60°   (B) 90°

    (C) 120°   (D) 30°

69. A 6 pole 5 KW, 50 Hz 3∅ motor having a full load slip of 3%, what will be the speed at full load :

    (A) 1200 rpm   (B) 1164 rpm

    (C) 970 rpm   (D) 1000 rpm

70. While testing a capacitors with the help of ohm meter the needle deflects towards zero and then goes to infinity the capacitor is :

    (A) Shorted   (B) Leaky

    (C) Open   (D) Good

71. The instrument used for measuring RPM is :

    (A) Tacho – meter   (B) Tong

    (C) Wheat stone Bridge   (D) Grouler

72. From the following, which is not characteristic of a capacitor start capacitor run motor?

    (A) High starting torque   (B) Good starting PF

    (C) Noise operation   (D) High running Torque

73. Among them which light source having high lumen efficiency :

    (A) Hallogen lamp   (B) Sodium vapour lamp

    (C) LED   (D) Mercury vapour lamp

74. BT – 136 is a semi conductor device, the device is :

    (A) Diac   (B) Triac

    (C) Transistor   (D) Zener diode

75. While using GI wire as earth continuity conductor the minimum Gauge is :

    (A) 10 SWG   (B) 8 SWG

    (C) 12 SWG   (D) 14 SWG

76. The voltage not exceeding 250 V is called :

    (A) Very low voltage   (B) Medium voltage

    (C) Low tension   (D) Low voltage

77. While erecting a pole to the ground the minimum depth kept bellow the ground level is :

    (A) 1/6th part of the pole   (B) 1/5th part of the pole

    (C) 1/4th part of the pole   (D) 1/7th part of the pole

78. In a Gyser which material used in between the outer core and inner tank :

    (A) Mica   (B) Glass wool

    (C) Asbestos   (D) Impregnated paper

79. 1 KWH is equal to :

    (A) 868 Calori   (B) 36×10^5 Calori

    (C) 860 Calori   (D) 3.6×10^6 Calori

80. The mass of an electron is approximately :

    (A) 1/1480 part of proton   (B) 1/4180 part of Neutron

    (C) 1/4108 part of proton   (D) 1/1840 part of proton

81. Kerala sastra puraskar of 2014 was awarded to :

    (A) G. Madhavan Nair   (B) K. P. Gopinadhan

    (C) K. Radhakrishnan   (D) J.C. Bose

82. Who was the freedom fighter other than Gandhiji, who died in 1948?

    (A) Tagore   (B) Sarojini Naidu

    (C) M.A. Finnah   (D) Sardar Patel

83. Red panda is the state animal of which Indian State :

    (A) Sikkim   (B) Meghalaya

    (C) Arunachal Pradesh   (D) Tripura

84. Who chairs the joint sitting of the parliament?

    (A) President of India   (B) Prime Minister

    (C) Supreme Court Chief Justice   (D) Lok Sabha speaker

85. The term Handicap is related to :

    (A) Hockey   (B) Football

    (C) Polo   (D) Cricket

86. Sadhujana Paripalana Sangam later popular as :

    (A) Pulaya Mahajana Sabha   (B) Harijana sabha

    (C) Pulaya Sangam   (D) Harijan Yojana Sabha

87. Integration of Indian states was a great achievement of :

    (A) Subhas Chandra Bose   (B) Nehru

    (C) Surendranath Banerjee   (D) Sardar Patel

88. The author of 'My Music, My Life' :

    (A) Yesudas   (B) Pandit Ravi Sankar

    (C) Subha lakshmi   (D) K.S. Chitra

89. Who is the chair person of National Women's Commission?

    (A) Mamta Sharma   (B) Jayanthi Patnaik

    (C) Lalitha kumaramangalam   (D) Sushma singh

90. Which State known as 'Land of Bio diversity'?

    (A) Kerala   (B) Gujarat

    (C) Tamilnadu   (D) Punjab

91. Who constituted Theertha Pada Matham?

    (A) Dr. Palpu   (B) Kumaranasan

    (C) Chattampi Swami   (D) Vaghbhatananda

92. The major type of soil found in Deccan plateau :

    (A) Alluvial soil   (B) Black soil

    (C) Red soil   (D) Laterite soil

93. When and where was Jana–Gana Mana first sung?

   (A) Calcutta session of INC in 1911   (B) Lahore session of INC in 1929

   (C) Lucknow session of INC in 1916   (D) Nagpur session of INC in 1922

94. The drama 'Balakalesam' written by :

   (A) Ayyankali   (B) V.T. Bhattathiripad

   (C) Pandit Karuppan   (D) Narayanaguru

95. Chathrapathi Shivaj International Airport is located in :

   (A) Pune   (B) Mumbai

   (C) Chennai   (D) Madurai

96. 'The Indian Struggle' is the Autobiography of :

   (A) Lala Lajpath Rai   (B) Bhaghat Singh

   (C) Subhas Chandra Bose   (D) Nehru

97. The Prime Minister of India who presided continuously three times as a Chairman of the planning commission of India :

   (A) Jawaharlal Nehru   (B) Rajiv Gandhi

   (C) Indira Gandhi   (D) Lal Bahadur Sastri

98. The sudden withdrawal of Non–cooperation movement led to the formation of :

   (A) Ghadar party   (B) Swarajist party

   (C) Hindu Maha Sabha   (D) Muslim League

99. The Partition of India was accepted on the basis of :

   (A) Mount batten plan   (B) Cripps Mission

   (C) Cabinet Mission   (D) Independence Act of India

100. In which of these cities did Jallian Wallabagh Massacre, one of the most tragic event in the history of our freedom struggle took place?

   (A) Lucknow   (B) Kanpur

   (C) Amritsar   (D) Lahore