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Dated the Kolkata 3rd February, 2026

NOTIFICATION

DISPLAY OF PROVISIONAL ANSWER KEYS TO THE QUESTIONS FOR WRITTEN EXAMINATION FOR RECRUITMENT TO THE POST OF ASSISTANT ENGINEER (ELECTRICAL) (ADVT. NO. 15 OF 2025) UNDER KMC HELD ON 01/02/2026 (SUNDAY).

[QUESTION BOOKLET CODE: AEEK (Annexed herewith)]

The provisional Answer Keys to the Questions for written examination for recruitment to the post of **Assistant Engineer (Electrical)** recruitment examination (Advertisement No. 15 of 2025).

The candidates are requested to visit the website and may upload their claims and objections, if any, on the Answer key-options uploaded as follows, in their opinions with worked out solutions / back up calculations / perfect reasoning in support of such difference of opinion. The candidates are required to submit the correct answers with back up documents, if at variance with the provisional Answer Keys as follows in their opinions, indicating Test/ Question Booklet code, Question Booklet number, Roll No. etc., specific for each particular candidate, along with scanned copies of the front page of Question Booklet and the concerned page(s) of the Question Booklet between 5th February,2026 and 9th February,2026 by accessing the link provided at www.mscwb.org. **It is to be noted that no claims for correction of provisional Answer Keys will be considered unless the same is submitted with proper worked out back up documents validating such claims by the respective candidate. No claims for correction of Answer Key will be entertained beyond the specified period as mentioned above.**

The claims and objections will not be entertained through any other medium.

Answer Keys to Booklet Code - AEEK

Q No	Answer						
1	C	26	A	51	B	76	B
2	A	27	B	52	D	77	A
3	D	28	B	53	C	78	D
4	A	29	B	54	C	79	B
5	A	30	D	55	D	80	C
6	B	31	B	56	B	81	A
7	C	32	C	57	B	82	C
8	A	33	D	58	D	83	A
9	C	34	A	59	B	84	A
10	B	35	D	60	D	85	A
11	C	36	C	61	B	86	A
12	B	37	C	62	C	87	D
13	A	38	D	63	B	88	D
14	C	39	C	64	D	89	A
15	B	40	C	65	B	90	A
16	C	41	B	66	C	91	B
17	B	42	B	67	B	92	C
18	A	43	A	68	D	93	C
19	B	44	B	69	D	94	D
20	D	45	A	70	A	95	B
21	B	46	C	71	B	96	D
22	C	47	B	72	C	97	C
23	A	48	B	73	B	98	A
24	C	49	D	74	C	99	A
25	C	50	B	75	B	100	C

Annexure: As mentioned.



Deputy Secretary, WBMSC

Deputy Secretary

West Bengal Municipal Service Commission
149, A.J.C. Bose Road, Kolkata-700014

AEEK

2

1. A moving iron instrument reads
 - (A) Peak value
 - (B) Average value
 - (C) RMS value
 - (D) Peak-to-peak value

2. In the root locus technique, the breakaway point occurs at
 - (A) $dK/ds = 0$
 - (B) $dG(s)/ds = 0$
 - (C) $d(1+G(s)H(s))/ds = 0$
 - (D) $d/ds[1/G(s)] = 0$

3. In a three-phase bridge rectifier with resistive load, the ripple frequency is
 - (A) f
 - (B) $2f$
 - (C) $3f$
 - (D) $6f$

4. The transfer function of a compensator which adds a zero to the system is
 - (A) Lead compensator
 - (B) Lag compensator
 - (C) Lag-lead compensator
 - (D) Notch filter

5. MOSFET is preferred over BJT in high frequency applications because of
 - (A) low switching losses.
 - (B) high current rating.
 - (C) high voltage rating.
 - (D) low cost.

6. The main advantage of HVDC transmission over HVAC transmission
 - (A) Lower cost of converters
 - (B) No reactive power requirement
 - (C) Absence of skin effect
 - (D) Easier voltage transformation

7. A class-B push-pull amplifier has maximum efficiency of approximately
 - (A) 25%
 - (B) 50%
 - (C) 78.5%
 - (D) 100%

8. In a transformer, maximum efficiency occurs when
 - (A) copper loss equals iron loss.
 - (B) copper loss is twice the iron loss.
 - (C) iron loss is twice the copper loss.
 - (D) load is maximum.

9. A multiplexer with n select lines can handle
 - (A) n input lines
 - (B) $2n$ input lines
 - (C) 2^n input lines
 - (D) n^2 input lines

10. The multiplier resistance used with a voltmeter should have
 - (A) high resistance and high temperature coefficient.
 - (B) high resistance and low temperature coefficient.
 - (C) low resistance and high temperature coefficient.
 - (D) low resistance and low temperature coefficient.

11. In load flow analysis using Newton-Raphson method, the bus at which both real and reactive powers are specified is called

- (A) Slack bus
- (B) PV bus
- (C) PQ bus
- (D) Reference bus

12. The Fourier transform of a unit impulse function is

- (A) zero
- (B) unity
- (C) infinity
- (D) exponential function

13. In a Wheatstone bridge, the bridge is said to be balanced when

- (A) no current flows through galvanometer.
- (B) all resistances are equal.
- (C) supply voltage is maximum.
- (D) galvanometer shows maximum deflection.

14. The equivalent circuit of an induction motor is similar to that of

- (A) DC motor
- (B) synchronous motor
- (C) transformer with short-circuited secondary
- (D) transmission line

15. The charging current in a transmission line is due to

- (A) line inductance
- (B) line capacitance
- (C) line resistance
- (D) skin effect

16. The phenomenon of voltage rise at the receiving end of an open-circuited or lightly loaded transmission line is called

- (A) Corona effect
- (B) Skin effect
- (C) Ferranti effect
- (D) Proximity effect

17. The Laplace transform of unit step function $u(t)$ is

- (A) 1
- (B) $1/s$
- (C) s
- (D) $\delta(t)$

18. A step-down chopper operates in

- (A) first quadrant
- (B) second quadrant
- (C) third quadrant
- (D) fourth quadrant

19. In a synchronous motor operating at constant load with variable excitation, minimum armature current occurs at

- (A) zero power factor leading.
- (B) unity power factor.
- (C) zero power factor lagging.
- (D) maximum excitation.

20. The extension of range of an ammeter can be achieved by using

- (A) high resistance in series.
- (B) high resistance in parallel.
- (C) low resistance in series.
- (D) low resistance in parallel.

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21. A PMMC instrument can be used for measurement of

- (A) AC voltage only.
- (B) DC voltage only.
- (C) both AC and DC voltage.
- (D) AC current only.

22. SF₆ circuit breakers are preferred for high voltage applications because SF₆ gas has

- (A) low dielectric strength.
- (B) high thermal conductivity.
- (C) excellent arc quenching property.
- (D) low cost.

23. The synchronous speed of a 6-pole, 50 Hz induction motor is

- (A) 1000 rpm
- (B) 1500 rpm
- (C) 3000 rpm
- (D) 500 rpm

24. The sag of a transmission line conductor is inversely proportional to

- (A) span length
- (B) conductor weight
- (C) tension in conductor
- (D) temperature

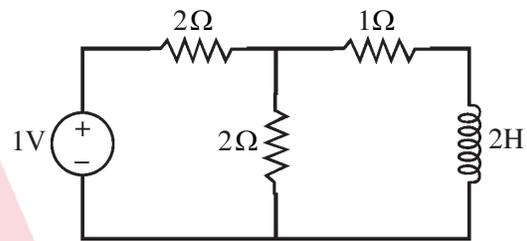
25. The starter used for a slip ring induction motor is

- (A) DOL starter
- (B) Star-delta starter
- (C) Rotor resistance starter
- (D) Auto-transformer starter

26. In per unit system, the base values of power and voltage in a three-phase system are related by the equation

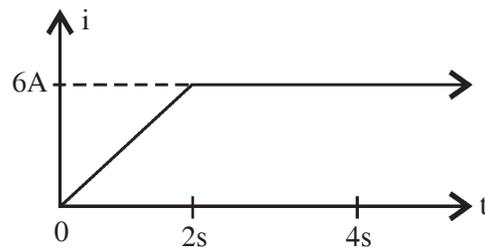
- (A) Base MVA = $\sqrt{3} \times$ Base kV \times Base current
- (B) Base MVA = $3 \times$ Base kV \times Base current
- (C) Base MVA = Base kV \times Base current
- (D) Base MVA = (Base kV)² / Base impedance

27. The steady state current in the following circuit from the 1V source will be



- (A) $\frac{1}{2}$ A
- (B) $\frac{3}{8}$ A
- (C) 1A
- (D) $\frac{1}{4}$ A

28. Figure given below shows the waveform of the current passing through an inductor of resistance 2Ω and inductance 2H. The heat energy dissipated by the inductor in the first four seconds is,



- (A) 96 J
- (B) 192 J
- (C) 132 J
- (D) 228 J

29. The rms value of the resultant current in a wire which carries a DC current of 5A, a sinusoidal alternating current of peak value $10\sqrt{2}$ A at 50 Hz and another sinusoidal alternating current of peak value $10\sqrt{2}$ A at 150 Hz is,

- (A) 10A
- (B) 15A
- (C) 25A
- (D) $25\sqrt{2}$ A

30. The input voltage to a load is $V_i = 100 \sin 314t$ volt and the current drawn is $i = 10 \sin(314t - \frac{\pi}{3}) + 5\sqrt{2} \sin(3 \times 314t + \frac{\pi}{4}) + 5\sqrt{2} \sin(5 \times 314t - \frac{\pi}{6})$ A. The load power factor is

- (A) $\frac{1}{2}$
- (B) $\frac{1}{\sqrt{2}}$
- (C) $\frac{2}{\sqrt{3}}$
- (D) $\frac{1}{2\sqrt{2}}$

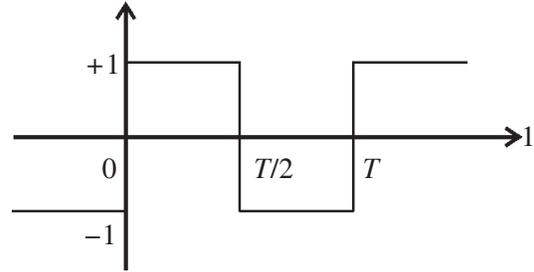
31. Divergence of a three dimensional radial vector field $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$ will be

- (A) $\frac{1}{3}$
- (B) 3
- (C) $\hat{i} + \hat{j} + \hat{k}$
- (D) $\frac{1}{3}(\hat{i} + \hat{j} + \hat{k})$

32. Fourier transform of exponential signal $e^{j\omega t}$ is

- (A) constant
- (B) a rectangular gate
- (C) an impulse
- (D) a series of impulse

33. The third harmonic component of the following periodic waveform has an amplitude of



- (A) $\frac{1}{3\pi}$
- (B) $\frac{3}{3\pi}$
- (C) $\frac{2}{3\pi}$
- (D) $\frac{4}{3\pi}$

34. The total core loss in a silicon steel specimen is found to be 1500 W at 50 Hz frequency. The loss becomes 2500 W at 75 Hz frequency at same flux density. The eddy current loss at 75 Hz will be

- (A) 750 W
- (B) 1750 W
- (C) 1500 W
- (D) 1250 W

35. A 300 kVA, 2 winding transformer has rated iron loss of 2 kW and copper loss of 2 kW at half load. Neglecting stray losses, the kVA loading at which the transformer efficiency will be maximum is

- (A) 300 kVA
- (B) 225 kVA
- (C) 175 kVA
- (D) 150 kVA

AEEK

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36. A 11000 V/415 V, Yd_{11} transformer draws a primary current of 0.5 A and absorbs 4400 W at no load when supplied at its HV side. The magnetizing current from HV side of the transformer will be,

- (A) $\frac{\sqrt{55}}{5\sqrt{3}}$ A
- (B) $\frac{\sqrt{59}}{10\sqrt{5}}$ A
- (C) $\frac{\sqrt{59}}{10\sqrt{3}}$ A
- (D) $\frac{\sqrt{59}}{5\sqrt{3}}$ A

37. A 2400/240 V, 200 kVA, single -phase transformer has a core loss of 1.8 kW at rated voltage. Its equivalent resistance is 1.1%. Neglecting any stray losses, the transformer efficiency at 0.9 power factor and on full load will be

- (A) $\left(\frac{175}{184}\right) \times 100\%$
- (B) $\left(\frac{175}{195}\right) \times 100\%$
- (C) $\left(\frac{180}{184}\right) \times 100\%$
- (D) $\left(\frac{180}{195}\right) \times 100\%$

38. A three-phase induction motor with stator winding excited at rated voltage would exhibit which of the following response at synchronous speed?

- (A) Rotor current is AC at stator frequency.
- (B) Rotor current is non-zero and DC.
- (C) Forward and backward fields are equal.
- (D) Rotor current is zero.

39. Two mechanically coupled alternators have delivering power at 50 Hz and 60 Hz respectively. The highest speed of the alternator combination when the power is delivered at same phase sequence will be

- (A) 500 rpm
- (B) 600 rpm
- (C) 3000 rpm
- (D) 3600 rpm

40. The starting current of three-phase induction motor is five times that of rated current. The rated slip is 4%. If the magnetizing current and the stator impedance of the machine can be neglected, the ratio of the starting torque to full load torque is nearest to

- (A) 0.6
- (B) 0.7
- (C) 1.0
- (D) 1.2

41. A 3Φ , 11 kV, 50 Hz, 200 kW load is operating at 0.8 p.f. lag. Now, if the p.f. is improved to unity using star connected capacitor at the load side, the ratio of line current drawn from the source before and after the capacitor connection will be

- (A) 1 : 1
- (B) 1 : 0.8
- (C) 0.8 : 1
- (D) 1 : (0.8)²

42. When bundled conductor is used in place of single conductor, the change in line parameters are—

- (A) L increases and C decreases, surge impedance increases
- (B) L decreases and C increases, surge impedance decreases
- (C) L decreases and C not affected, surge impedance increases
- (D) L and C both unaffected, surge impedance decreases

43. The size of the memory system with 8 memory chips, 12 address lines and 4 data lines will be,

- (A) 16 k bytes
- (B) 64 k bytes
- (C) 32 k bytes
- (D) 128 k bytes

44. A three-phase, 33kV oil circuit breaker is rated at 1200A, 1650 MVA. Its symmetrical breaking current is,

- (A) 1200 A
- (B) $\frac{50}{\sqrt{3}}$ kA
- (C) $\frac{1200}{\sqrt{3}}$ kA
- (D) $\frac{1650}{\sqrt{3}}$ A

45. A generator is delivering a power of 1.0 pu to an infinite bus through a purely reactive network. The maximum power that could be delivered by the generator is 2.0 pu. The operating load angle is

- (A) 30°
- (B) 60°
- (C) 45°
- (D) 90°

46. An alternator with equivalent reactance equal to 0.5 pu is connected with infinite bus at 1.0 pu voltage through a step-up transformer of reactance 1.0 pu. The excitation voltage of the alternator is 1.2 pu. The steady state power limit for the alternator will be

- (A) 1.5 pu
- (B) 0.5 pu
- (C) 0.8 pu
- (D) 1.2 pu

47. The charging current in the cables

- (A) lags voltage by 90°
- (B) leads voltage by 90°
- (C) lags voltage by 180°
- (D) lags voltage by 45°

48. In a three-phase, four wire balanced system connected with star connected load, if the r.m.s. values of line current fundamental and third harmonic components are 10A and 2A respectively, the neutral r.m.s. current will be

- (A) 30 A
- (B) 6 A
- (C) 14.14A
- (D) 36 A

49. Which of the following device will be most suitable to measure the stator winding temperature of an alternator?

- (A) Thermometer
- (B) Pyrometer
- (C) Thermocouple
- (D) RTD

Please Turn Over

AEK

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50. Which one of the following is not a renewable energy?

- (A) Geothermal
- (B) Nuclear
- (C) Wind
- (D) Tidal

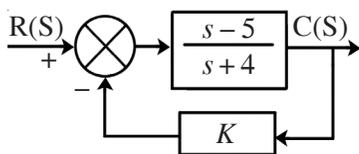
51. Making air as media, the core of a coil has become of constant permeability. Then for any coil current and the resultant flux linkage—

- (A) The co-energy is zero
- (B) The energy and co-energy are equal
- (C) The energy is less than co-energy
- (D) The energy is greater than co-energy.

52. The settling time of an underdamped second order system for 5% tolerance band is 10s. The peaktime is 1s. The number of cycles of damped response, before the system settles are

- (A) 10
- (B) 2
- (C) 3
- (D) 5

53. Choose the option given below for K for which the system shown in the figure becomes asymptotically stable.



- (A) $0 < K < 4$
- (B) $K > 5/4$
- (C) $-1 < K < 4/5$
- (D) $-1 < K < 5/4$

54. The phase shift of the second order system with transfer function $G(s) = \frac{1}{s^2}$ will be

- (A) -90°
- (B) 90°
- (C) -180°
- (D) 180°

55. A thermo-electric ammeter gives a full scale deflection for a DC current of 50A. Calculate the DC current which causes half scale deflection.

- (A) 50 A
- (B) 25 A
- (C) $\frac{25\sqrt{2}}{2}$ A
- (D) $25\sqrt{2}$ A

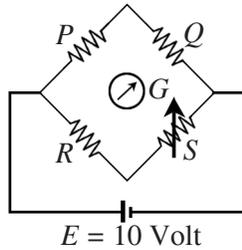
56. A three-phase energy meter is designed to make 100 revolutions of disc for one unit of energy. Calculate the number of revolutions made by it when connected to three-phase star connected load carrying 40A line current at 415V and unity power factor for thirty minutes.

- (A) $830\sqrt{2}$
- (B) $830\sqrt{3}$
- (C) $415\sqrt{3}$
- (D) $415\sqrt{2}$

57. A current $i = 5 + 14.14 \sin(314t + 45^\circ)$ is passed through a centre zero PMMC, hot-wire and moving iron ammeter. The respective readings are

- (A) $-5, 15$ and $\sqrt{125}$
- (B) $5, \sqrt{125}$ and $\sqrt{125}$
- (C) $-5, \sqrt{125}$ and $\sqrt{224}$
- (D) $5, 10$ and 10

58. For the Wheatstone bridge given below, the ratio arm resistances are, $P = 10000 \Omega$, $Q = 10 \Omega$. The adjustable arm resistance S can have a maximum value of 1000Ω . The battery is of 10 V with negligible resistance. The maximum value of unknown resistance R that can be measured is



- (A) $10 \text{ k}\Omega$
- (B) $1.0 \text{ k}\Omega$
- (C) $100 \text{ k}\Omega$
- (D) $1.0 \text{ M}\Omega$

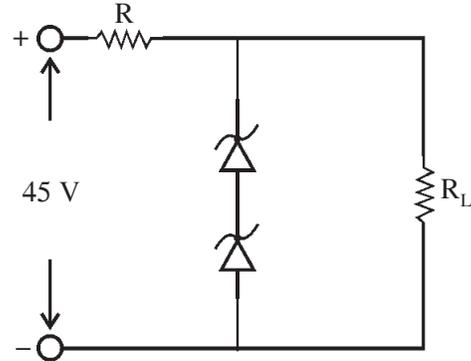
59. For the signals $v_1(t) = 25 \sin \omega t$ and $v_2(t) = 25 \sin(\omega t + \phi)$, the Lissajous pattern observed on the CRO will be a perfect circle, if the value of ϕ is

- (A) π
- (B) $\frac{\pi}{2}$
- (C) $\frac{\pi}{4}$
- (D) 0

60. The two wattmeter method for three-phase power measurement produces wattmeter readings of $P_1 = 1500 \text{ W}$ and $P_2 = 1000 \text{ W}$ for a delta connected balanced load. The per phase reactive power for a balanced line voltage of 220 V will be,

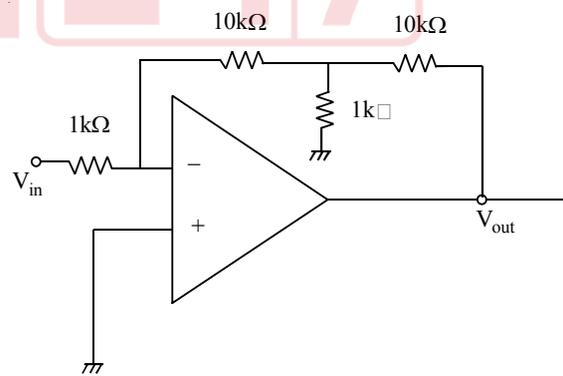
- (A) 500 VAR
- (B) $\frac{2500}{\sqrt{3}} \text{ VAR}$
- (C) $500\sqrt{3} \text{ VAR}$
- (D) $\frac{500}{\sqrt{3}} \text{ VAR}$

61. For the given circuit, each Zener diode is rated at 15 V , 200 mA and the load resistance R_L is $1 \text{ k}\Omega$. The regulated output voltage and the minimum value of R will be,



- (A) $30 \text{ V}, \frac{1245}{23} \Omega$
- (B) $30 \text{ V}, \frac{1500}{23} \Omega$
- (C) $15 \text{ V}, \frac{1500}{23} \Omega$
- (D) $15 \text{ V}, \frac{1245}{23} \Omega$

62. For the given OP-AMP circuit, the ratio of V_{out}/V_{in} will be,



- (A) -1
- (B) -130
- (C) -120
- (D) -200

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AEEK

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63. An amplifier has an open loop voltage gain of 1000. If 10% negative voltage series feedback is used, the closed loop voltage gain will be
- (A) 990
(B) 9.9
(C) 1.9
(D) 99
64. The cross-sectional structure magnetic cores of large transformers are stepped to
- (A) minimize eddy current loss.
(B) minimize hysteresis loss.
(C) minimize no-load current.
(D) minimize copper weight and decrease copper loss.
65. The correct relation between electric field intensity (E), electric flux density (D) and relative permittivity (ϵ_r) will be
- (A) $E = \epsilon_0 \epsilon_r / D$
(B) $E = D / \epsilon_0 \epsilon_r$
(C) $E = D \epsilon_r / \epsilon_0$
(D) $E = D \epsilon_0 / \epsilon_r$
66. A single-phase half wave diode rectifier feeds pure inductive load. The conduction angle of the diode will be
- (A) 0
(B) π
(C) 2π
(D) $3\pi/2$
67. Triac is a
- (A) controlled unidirectional device.
(B) semi-controlled bidirectional device.
(C) uncontrolled bidirectional device.
(D) uncontrolled unidirectional device.
68. The heating time constant for a motor when its temperature rises after 30 minutes of operation is 60% of the final value will be
- (A) $\frac{30}{\ln(0.6)}$ minutes
(B) $\frac{-30}{\ln(0.6)}$ minutes
(C) $\frac{30}{\ln(0.4)}$ minutes
(D) $\frac{-30}{\ln(0.4)}$ minutes
69. In a three-phase transformer with star-star connection, if the phase voltages have third and fifth harmonics, the line voltage will have
- (A) fundamental and third harmonics.
(B) fundamental with both third and fifth harmonics.
(C) fundamental and no harmonics.
(D) fundamental with fifth harmonics.
70. For a three-phase, 4 pole squirrel cage induction machine with stator supply at 25 Hz, if the rotor runs at 650 rpm, the frequency of the rotor induced emf will be
- (A) 3.33 Hz
(B) 2.23 Hz
(C) 3.6 Hz
(D) 2.29 Hz
71. The Left Hand rule is applicable to
- (A) generator
(B) motor
(C) transformer
(D) Both (A) and (B)

72. The maximum starting torque in an induction motor is developed when
- (A) the rotor reactance is half of the rotor resistance.
 - (B) the rotor reactance is twice of the rotor resistance.
 - (C) the rotor reactance is equal to rotor resistance.
 - (D) None of the above
73. The instrument used to measure pressure is
- (A) Hygrometer
 - (B) Manometer
 - (C) Tachometer
 - (D) Pyrometer
74. Digital instruments are more preferred because they have
- (A) low accuracy.
 - (B) parallax error.
 - (C) high resolution.
 - (D) no noise.
75. The working principle of a thermocouple is—
- (A) Self-inductance
 - (B) Seebeck effect
 - (C) Coulomb's law
 - (D) Doppler effect
76. A galvanometer can be converted into an ammeter by adding
- (A) high resistance in series.
 - (B) low resistance in parallel.
 - (C) high resistance in parallel.
 - (D) no resistance.
77. The instrument used to measure humidity is
- (A) Hygrometer
 - (B) Hydrometer
 - (C) Barometer
 - (D) Pyrometer
78. Increasing operating frequency of transmission line
- (A) decrease series reactance.
 - (B) increase shunt reactance.
 - (C) decrease line resistance.
 - (D) increase line resistance.
79. No load compensation of a high voltage transmission line involves
- (A) shunt capacitors
 - (B) shunt reactors
 - (C) series capacitors
 - (D) Both (A) and (B)
80. Buchholz relay is used for the protection of
- (A) transmission line
 - (B) generator
 - (C) transformer
 - (D) motor
81. Protective relays are the devices that detect abnormal conditions in electrical circuits by measuring
- (A) constantly the electrical quantities which differ during normal and abnormal conditions.
 - (B) voltage
 - (C) current
 - (D) impedance
82. A conductor with 25 strands, each of same diameter and each having a capacitance of $C \mu\text{F}$ with neutral wire, is used for a transmission line. The phase to neutral capacitance of the line is
- (A) $C/25$
 - (B) $C/50$
 - (C) $25C$
 - (D) $12.5C$

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83. If the power factor of the load increases, the line losses
- decrease
 - increase
 - remain unchanged
 - None of the above
84. A conductor with 19 strands, each of same diameter and each having an inductance of L Henries (H) is used for a transmission line. The total inductance of the conductor will be
- L/19
 - L/38
 - 19L
 - 9.5L
85. What is the value of characteristics impedance of loss free transmission line?
- $\sqrt{L/C}$ (L/C)
 - $\sqrt{R/C}$ (R/C)
 - \sqrt{LC} (LC)
 - \sqrt{CL} (C/L)
86. Power transmission efficiency increases as
- voltage and power factor both increase.
 - voltage and power factor both decrease.
 - voltage increases but power factor decreases.
 - voltage decreases but power factor increases.
87. A power system network with a capacity of 100 MVA has a source impedance of 10% at a point. The fault level at that point is
- 10 MVA
 - 30 MVA
 - 3000 MVA
 - 1000 MVA
88. For the system $\dot{X} = AX + BU$, the matrix B represents
- output matrix
 - state matrix
 - transition matrix
 - control/input matrix
89. A transfer function having repeated poles at zero indicates
- integrators in cascade.
 - differentiators in cascade.
 - high bandwidth.
 - unstable response.
90. The area of the hysteresis loop is a measure of
- energy loss per cycle of magnetization.
 - power loss per cycle of magnetization.
 - residual magnetism.
 - coercivity.
91. The direction of a magnetic field within a magnet is
- from north to south.
 - from south to north.
 - back to front.
 - front to back.
92. What is the magnetomotive force (mmf) of a wire with 8 turns carrying three amperes of current?
- 2400 AT
 - 240 AT
 - 24 AT
 - 2.4 AT

93. Four $0.15 \mu\text{F}$ capacitors are in parallel. The equivalent capacitance is

- (A) $0.15 \mu\text{F}$
- (B) $0.30 \mu\text{F}$
- (C) $0.6 \mu\text{F}$
- (D) $0.8 \mu\text{F}$

94. A certain current source has the values $I_s = 4 \mu\text{A}$ and $R_s = 1.2 \text{ M}\Omega$. The values for an equivalent voltage source are

- (A) $4.8 \mu\text{V}$, $1.2 \text{ M}\Omega$
- (B) 1 V , $1.2 \text{ M}\Omega$
- (C) 4.8 V , $4.8 \text{ M}\Omega$
- (D) 4.8 V , $1.2 \text{ M}\Omega$

95. The maximum power that a 12V DC source with an internal resistance of 2 ohm can supply to the resistive load is

- (A) 15 W
- (B) 18 W
- (C) 35 W
- (D) 45 W

96. In 8-bit microprocessor, how many opcodes are present?

- (A) 246
- (B) 278
- (C) 250
- (D) 256

97. The time constant of a series RC circuit is

- (A) R/C
- (B) C/R
- (C) RC
- (D) $1/RC$

98. What is the unit of the apparent or complex power?

- (A) VA
- (B) Watt
- (C) Volt
- (D) VAR

99. Corona loss in HVDC line is

- (A) less than that in AC line operating at same rms voltage.
- (B) more than that in AC line operating at same rms voltage.
- (C) same as that in AC line operating at same rms voltage.
- (D) zero.

100. If charge $q = 3t^2 + 2$, then current is given by

- (A) $6t + 2$
- (B) $3t^2$
- (C) $6t$
- (D) $3t^2 + 2$

AEK

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Space for Rough Work



Space for Rough Work



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Space for Rough Work

