KPSC
AEI

Previous Year Paper
Technical Paper-II
25 May, 2023

1. Series compensation of EHV lines is resorted :

(1) to reduce the fault level.

(2) to improve the stability.

(3) as a substitute for synchronous phase modifier.

(4) None of the above

2. The synchronizing power of a synchronous machine is maximum at :

(1) full load

(2) no load

(3) a load slightly more than full load

(4) None of the above

3. The power transmission capability of an EHV AC transmission line is :

(1) directly proportional to the length of the line.

(2) proportional to the square of the length of the line.

(3) inversely proportional to the length of the line.

(4) independent of the length of the line.

4. A resistance of 10 Ω is fed through a 1-phase AC regulator from a voltage source of 200 sin 314 t(in V). For a firing angle delay of 90°, the power delivered to the resistance, in kW, is :

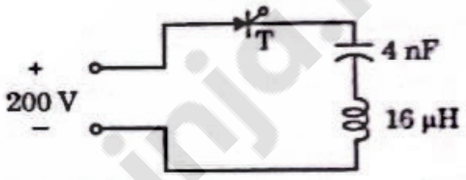
(1) 0·5

(2) 0·75

(3) 1·0

(4) 2·0

5. For the circuit shown, the voltage across the thyristor T, after it is self-commutated, is :



(1) Zero

(2) – 1·5 V

(3) – 200 V

(4) – 400 V

6. The bus admittance matrix of a three-bus three-line system is

$$Y = j\begin{bmatrix} -13 & 10 & 5 \\ 10 & -18 & 10 \\ 5 & 10 & -13 \end{bmatrix}$$

If each transmission line between the two buses is represented by an equivalent π-network, the magnitude of the shunt susceptance of the line connecting bus 1 and 2 is :

(1) 4

(2) 2

(3) 1

(4) 0

7. In single-pulse modulation of PWM inverters, third harmonics can be eliminated if pulse width is equal to :

(1) 60°

(2) 72°

(3) 120°

(4) 144°

8. The DC side voltage of a voltage source inverter is 300 V. If the inverter is operated as a single-pulse modulation with a pulse-width of 120°, then the rms value of the output voltage is approximately :

(1) 84 V

(2) 200 V

(3) 243 V

(4) 300 V

9. In order to obtain both forward motoring and forward generative braking operations of a chopper fed DC drive :

(1) Type A chopper is required

(2) Type B chopper is required

(3) Type C chopper is required

(4) Type D chopper is required

10. In continuous conduction mode of chopper A, per unit ripple in load current is maximum when duty cycle is equal to :

(1) 0·5

(2) 1·0

(3) 0

(4) 0·75

11. A single-phase half-wave AC voltage controller, using one SCR in antiparallel with a diode, feeds a 1 kW, 230 V heater. Find the load power for a firing angle delay of 180°.

(1) 1000 W

(2) 750 W

(3) 500 W

(4) 0 W

12. Single line diagram of which of the following power systems is possible ?

(1) Power system with LG fault

(2) Balanced power system

(3) Power system with LL fault

(4) Power system with LLG fault

13. Which of the following is ***not*** neglected during formation of reactance diagram from impedance diagram ?

(1) Shunt component of transformer

(2) Static loads

(3) Resistance of various power system components

(4) Reactance of alternators

14. A 4-pole, 50 Hz induction motor has starting current as 5 times that of the load current working at a speed of 1450 rpm. The ratio of starting to full load torque will be :

(1) 0·83

(2) 0·17

(3) 0·67

(4) 1

15. The method which employs reduction of the voltage while induction motor is starting is :

A. DOL starting

B. Auto-Transformer starting

(1) A only

(2) A, B

(3) B only

(4) Neither A nor B

16. During no load test the wattmeter reading will be :

A. Stator copper loss

B. Stator core loss

C. Rotor core loss

D. Friction and windage loss

E. Rotor copper loss

(1) A, B, D

(2) B, C, D

(3) A, B, C, D

(4) B, D

17. The torque developed in three-phase induction motor depends on _____ .

A. Standstill rotor phase emf

B. Rotor power factor

(1) A only

(2) B only

(3) Both A and B

(4) Neither A nor B

18. If pu impedance of a 2-ϕ transformer is 0·01 + j0·05, then its regulation at pf of 0·8 lagging will be :

(1) 3·8%

(2) 2·2%

(3) $-3·8\%$

(4) $-2·2\%$

19. A recording of the output of the emf induced for star and delta are recorded. Then shape of the emf induced in Y-connected to 3-ϕ transformer is non-sinusoidal in nature due to _____ .

(1) 3^{rd} harmonic component of current being present

(2) 3^{rd} harmonic component of current being absent

(3) negative sequence component of current being present

(4) None of these

20. Which of the statements made here are ***incorrect*** for transformer ?

A. Maximum voltage regulation occurs at the leading pf.

B. Maximum voltage regulation occurs when load pf angle and impedance angle of the leakage impedance are same.

C. V.R. at zero pf is always zero.

D. V.R. of a transformer may be negative at leading pf.

(1) A, B, C

(2) D only

(3) A, C

(4) A, C, D

21. The actual voltage regulation is 33·1% while the calculated value of the voltage regulation is 32·9%. This infers that the chosen method has been :

(1) ZPF or ASA

(2) EMF

(3) MMF

(4) MMF or ZPF

22. To increase fastness of response of DC servomotor :

(1) Inertia should be low and friction should be low.

(2) Inertia should be low and friction should be high.

(3) Inertia should be high and friction should be low.

(4) Inertia and friction both should be high.

23. The linear spring in a mechanical system is analogous to following in nodal system of an electric circuit :

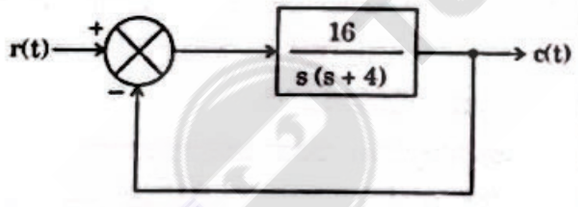
(1) Capacitance

(2) Reciprocal of capacitance

(3) Inductance

(4) Reciprocal of inductance

24. In the system shown in the following figure, the input is $r(t) = \sin \omega t$. The steady state response c(t) will exhibit a response peak at frequency of :



(1) 4 rad/sec

(2) $2\sqrt{2}$ rad/sec

(3) 2 rad/sec

(4) $\sqrt{2}$ rad/sec

25. If the unit step response of a system is a unit impulse function, then transfer function of such a system will be :

(1) 1

(2) 1/s

(3) s

(4) $1/s^2$

26. The effect of adding a zero to second order system is :

(1) System time response becomes slower

(2) Decrease in rise time

(3) Decrease in overshoot

(4) All of the above

27. The neutral of a three-phase generator is solidly grounded. For a fault at generator's terminals at the fault, current is maximum for :

(1) 3-phase fault

(2) LL fault

(3) SLG fault

(4) DLG fault

45. Three single-phase 5500/110 V transformers are connected to form three-phase transformer bank. High voltage side is connected in star, and low voltage side is in delta. What is the turn ratio of three-phase transformer ?

(1) $25\sqrt{2}$

(2) $50\sqrt{3}$

(3) 50

(4) 25

46. A three-phase rotating magnetic field is :

(1) Pulsating and stationary.

(2) Pulsating and rotating.

(3) Constant in amplitude and rotating at synchronous speed.

(4) Constant in amplitude and stationary in space.

47. Magnetic flux in a magnetic circuit is analogous to _____ in an electric circuit.

(1) Voltage

(2) Current

(3) Resistance

(4) Capacitance

48. A 200 W, 230 V, 50 Hz capacitor start induction motor has the following constants :

Main winding : $R_m = 4.5$ ohm.

$X_m = 3.7$ ohm

Starting winding : $R_s = 9.5$ ohm.

$X_s = 3.5$ ohm

Find the value of starting capacitance that will result in maximum starting torque.

(1) 252 μF

(2) 212 μF

(3) 282 μF

(4) 312 μF

49. Capacitors are used in directly grid-connected induction generators for

(1) Improving the power factor.

(2) Decreasing the starting current.

(3) Starting the generator as a motor.

(4) Increasing the terminal voltage.

28. A power system consists of two areas (area 1 and area 2) connected by a tie line. It is required to carry out load flow study on this system. While entering the network data, the tie line data (connectivity and parameters) is left out inadvertently. If the load flow program runs with this incomplete data :

(1) the load flow will converge if slack bus is selected in area 1.

(2) the load flow will converge if slack bus is selected in area 2.

(3) the load flow will converge if slack bus is selected in either area.

(4) the load flow will not converge if only one slack bus is specified.

29. A synchronous generator is supplying power to the infinite bus through a transmission line. At the middle of the line a shunt capacitor is added. The stability limit will :

(1) increase

(2) decrease

(3) remain the same

(4) increase or decrease depending upon line length

30. A power supply of maximum current rating of 40 A, terminal voltage of approximately 6 V needs to be constructed by using available battery cells, each having a terminal voltage of 3 V and can supply a maximum current of 5 A. The number of cells required will be :

(1) 24

(2) 16

(3) 12

(4) 8

31. Bi-directional switches, also called as four-quadrant switches can be constructed by using :

(1) Two IGBTs and two diodes

(2) One IGBT with four diodes

(3) Two MOSFETs

(4) All of the above

32. 10 kW of power at 200 V is supplied for EV battery charging. The power converter operates at a switching frequency of 300 kHz. Which power semiconductor device is best suitable for this application ?

(1) Thyristor

(2) MOSFET

(3) BJT

(4) IGBT

40. In rotating machines, voltages are generated in the windings by :

(1) Rotating these windings mechanically through a magnetic field.

(2) Rotating magnetic field past these windings.

(3) Designing a magnetic circuit so that reluctance varies with rotor rotation.

(4) All of the above

41. When the flux in a DC generator is reduced by 20% and speed is increased by 20%, the change in the induced EMF will be :

(1) Reduced by 10%

(2) Increased by 10%

(3) Reduced by 4%

(4) Increased by 4%

42. A shunt generator gives full load output of 30 kW at a terminal voltage of 200 V. The armature and shunt field resistances are 0·05 ohm and 50 ohm respectively. The iron and friction losses are 1000 W. Efficiency of the generator is :

(1) 85·85%

(2) 90·95%

(3) 95·90%

(4) 92·80%

43. A three-phase 6-pole 50 Hz induction motor takes 60 A at full load speed of 940 rpm and develops a torque of 150 Nm. The starting current at rated voltage is 300 A. What is the starting torque and starting current if star delta starter is used ?

(1) 225 Nm and 75 A

(2) 75 Nm and 300 A

(3) 75 Nm and 100 A

(4) 225 Nm and 75 A

44. Two transformers of the same type, using the same grade of iron and conductor materials, are designed to work at the same flux and current densities; but the linear dimensions of one are two times those of the other in all respects. The ratio of KVA of the two transformers closely equals :

(1) 16

(2) 8

(3) 4

(4) 2

33. Buck-boost converter operating at 20 kHz has a sufficiently large capacitor, and an inductor of 0·05 mH. Converter is supplying a load of 10 W and output voltage is kept at 15 V with an input of 10 V. The duty ratio D is :

(1) 0·2
(2) 0·3
(3) 0·4
(4) 0·6

34. Minimum DC bus voltage required in a PWM inverter operated in linear modulation region with sine triangle PWM to obtain a line to line voltage of 325 V is :

(1) 475 V
(2) 535 V
(3) 615 V
(4) 675 V

35. By reducing the field flux of a separately excited DC motor, it can be operated at :

(1) Higher than its rated speed
(2) Higher than its rated torque
(3) Higher than its rated power
(4) All of the above

36. The effective RMS voltage for

$v(t) = 5 + 8 \sin(\omega_1 t + 10°) + 5 \sin(\omega_2 t + 50°)$

when $\omega_1 = \omega_2$ is :

(1) 5 V
(2) 8 V
(3) 10 V
(4) 12 V

37. If the DC supply is 48 V, output voltage ripple must not exceed 0·5 percent. The minimum value of inductance which needs to be selected for a buck converter operating at 40 kHz to produce an output voltage of 18 V across a 10 Ω load resistor is :

(1) 87 μH
(2) 98 μH
(3) 78 μH
(4) 69 μH

38. Snubber circuit for a thyristor consists of :

(1) R (Resistance) C (capacitor) in series
(2) R (Resistance) C (capacitor) in parallel
(3) R (Resistance) L (inductance) in series
(4) R (Resistance) L (inductance) in parallel

39. In a thyristor controlled single-phase full-wave rectifier, the peak value of the sinusoidal input voltage is V_m and the value of the delay angle is $\pi/4$ radian. Find the average value of output voltage.

(1) V_m
(2) $0{\cdot}25\ V_m$
(3) $0{\cdot}45\ V_m$
(4) $0{\cdot}75\ V_m$

50. A 10 MVA, 11 kV alternator has positive, negative and zero sequence reactance of 25%, 40%, 10%, respectively. The resistance that must be placed in the neutral, such that zero sequence of fault current for a single-phase to ground fault will not exceed that rated line current in ohms, is :

(1) 2·66 Ω

(2) 1·66 Ω

(3) 12·1 Ω

(4) 0·22 Ω

51. Which of the following pollutants emitted by thermal power plant causes irritation in eyes ?

(1) Oxides of Sulphur

(2) Oxides of Nitrogen

(3) Oxides of Mercury

(4) Oxides of Carbon

52. A 240 kV, 2 μs rectangular pulse surge on a transmission line has surge impedance of 350 Ω. It approaches a generating station with capacitance of 3000 pF. The transmitted voltage will be _____.

(1) 340·5 kV

(2) 280 kV

(3) 400 kV

(4) 480 kV

53. The over-voltage that occurs mainly under converter stations is due to _____.

A. Lighting and switching over voltage

B. Transients produced in conductors

C. Over-voltage due to fault clearing

(1) A, B, C

(2) C only

(3) B, C

(4) A, B

54. Which of the factor(s) below contribute to more receptibility to pollution of insulators ?

(1) Ionic current

(2) Uniform voltage

(3) Electrostatic voltage

(4) (1) and (3)

55. The effective resistance of the conductor is increased by :

A. Skin effect

B. Corona

C. Proximity

(1) A, B

(2) A, C

(3) B, C

(4) A, B, C

56. Performance analysis of medium transmission line is done :

(1) By reactance diagram

(2) By symmetrical component analysis method

(3) By neglecting line inductance

(4) On per phase basis

57. For a given system consisting of two generators :

Units	Rating (MW)	Speed drop (%R)
1.	400	0·04
2.	800	0·05

The unit share load of P_1 = 200 MW and P_2 = 600 MW.

The units are operating in parallel to share a load of 700 MW at 50 Hz. The load is increased by 130 MW with B = 0. Then the value of new steady state frequency variation is _____.

(1) 49·75 Hz

(2) 51·25 Hz

(3) 49·25 Hz

(4) 48·75 Hz

58. Characteristic impedance of a transmission line depends on :

(1) Geometrical configuration of conductor

(2) Shape of conductor

(3) Conductivity

(4) Surrounding of the conductor

59. Consider the following statements regarding convergence of the Newton – Raphson procedure :

A. It does not converge to a root when the second differential coefficient changes sign.

B. It is preferred when the graph λ of (X) is nearly horizontal where it crosses the x-axis.

C. It is used to solve algebraic and transcendental equations.

Which of the following statements are correct ?

(1) A, B and C

(2) A and B only

(3) B and C only

(4) A and C only

60. Read the statements below :

A. The built-up rotor is cheaper and easier to manufacture.

B. The high pressure and intermediate pressure rotors are always of integral type.

(1) A is correct

(2) B is correct

(3) A and B are correct

(4) A and B are wrong

61. Which of the following statements is *true* ?

A. In homogeneous reactors, the nuclear fuel and the moderator represent a uniform mixture in the fluid form.

B. In heterogeneous reactors, separate fuel sludge or rods are inserted in the moderator.

C. Most of the nuclear reactors used these days are of homogeneous type.

(1) A and B

(2) A and C

(3) B and C

(4) C only

62. The load carrying capability of a long AC transmission line is :

(1) always limited by the conductor size

(2) limited by stability considerations

(3) reduced at low ambient temperature

(4) decreased by the use of bundled conductors

63. Annual instalment towards depreciation reduces as interest rate increases with :

(1) Straight line depreciation

(2) Sinking fund depreciation

(3) Reducing balance depreciation

(4) All of the above

64. Utilization factor is defined as the ratio of :

(1) Average demand to rated capacity of the power plant

(2) Maximum demand to rated capacity of the power plant

(3) Rated capacity to the maximum demand of the plant

(4) None of these

65. The load factor for domestic load may be taken as :

(1) About 85%

(2) 50 – 60%

(3) 25 – 50%

(4) 10 – 15%

76. The safe working temperature of a tungsten filament lamp is :

(1) 1000°C

(2) 2000°C

(3) 1500°C

(4) 3000°C

77. With V/f speed control of three-phase induction motor, the maximum torque and slip at which maximum torque occurs :

(1) Increases and decreases, respectively, with increase of frequency.

(2) Increases and increases, respectively, with increase of frequency.

(3) Decreases and increases, respectively, with increase of frequency.

(4) Decreases and decreases, respectively, with increase of frequency.

78. In Ward Leonard Control of DC motor, the speeds of motor during forward and reverse operation can be decreased and increased, respectively by :

(1) Increased and decreased Generator field current respectively.

(2) Decreased and increased Motor field current respectively.

(3) Equal field currents of Motor and Generator.

(4) Increased and decreased Motor field current respectively.

79. Vector control of AC drives tends to similar transient response when compared with that of separately excited DC machines, as :

(1) It is elegant and is simply realized.

(2) Both types can be represented by similar types of primitive machines under unified theory of machine.

(3) It permits decoupling of torque and flux-producing currents.

(4) Decoupling is not required in AC and separately excited DC machines.

80. The crawling in an induction motor is caused by :

(1) Improper design of the machine

(2) Low voltage supply

(3) High loads

(4) Harmonics developed in the motor

70. Mutual flux _____ at lagging loading and it _____ at the leading pf.

(1) decreases, increases

(2) increases, increases

(3) decreases, decreases

(4) increases, decreases

71. Which of the following is correctly matched ?

A. Positive sequence components – 5^{th} harmonic component

B. Negative sequence components – 7^{th} harmonic component

C. Zero sequence components – 3^{rd} harmonic component

(1) A, B, C

(2) C only

(3) A, B

(4) B, C

72. If a 3-ϕ 350 V, 50 Hz squirrel-cage IM is run at 55 Hz, then :

A. Starting torque will increase.

B. Maximum torque will increase.

C. Maximum torque will remain same.

D. Starting torque will decrease.

E. Operating speed will rise.

(1) C, D, E

(2) A, C, E

(3) A, B

(4) E only

73. A power system has a maximum load of 15 mW. Annual load factor is 50%. The reserve capacity of plant is _____ if the plant capacity factor is 40%.

(1) 3·75 mW

(2) 7·75 mW

(3) 46·75 mW

(4) 8·75 mW

74. What is the effect of increasing steam temperature of thermal power plant on its thermal efficiency ?

(1) It increases linearly

(2) It decreases

(3) It does not depend on temperature

(4) It increases non-linearly

75. What are the methods used to protect conductors against high frequency resonant vibrations ?

(1) Horizontal conductor configuration

(2) Vertical conductor configuration

(3) By using dampers

(4) There is no method for prevention of such vibrations

66. Which of the following relations holds good ?

(1) Maximum demand =
Connected load × Demand factor

(2) Average load =
Maximum load × Load factor

(3) Capacity factor =
Utilization factor × Load factor

(4) All of the above

67. Flat rate tariff can be charged on the basis of :

(1) Connected load

(2) Units consumed

(3) Maximum demand

(4) Both (1) and (2)

68. We can increase the torque of a reluctance synchronous motor if we :

(1) Increase reluctance of a magnetic circuit along the direct axis.

(2) Decrease reluctance of a magnetic circuit along the quadrature axis.

(3) Increase the ratio of the quadrature axis reluctance to direct axis reluctance.

(4) Decrease the ratio of quadrature axis reluctance to direct axis reluctance.

69. During the blocked rotor test the wattmeter reading will be :

A. Stator copper loss

B. Stator core loss

C. Rotor core loss

D. Friction and windage loss

E. Rotor copper loss

(1) A, E

(2) B, C, D

(3) A, B, C, D

(4) B, D

81. Plugging is executed when :

(1) two stator terminals are shorted together.

(2) the supply terminals of any two stator phases are interchanged.

(3) the two stator terminals are earthed.

(4) any two stator terminals are connected to a DC source.

82. Speed control by variation of number of stator poles is applicable to :

(1) both squirrel cage and wound rotor motors.

(2) squirrel cage motors only.

(3) slip ring motors of small ratings only.

(4) slip ring motors of large ratings only.

83. Level-3 charging (fast charging) of an Electric Vehicle consumes

(1) 2 kW

(2) 20 kW

(3) 50 kW

(4) None of these

84. Which of the following conditions is valid for a secure power system ?

(1) Some of the loads may not be served

(2) None of the loads are served

(3) All the loads are served

(4) None of the above

85. The transfer function of a linear time invariant system is given as :

$$G(s) = \frac{1}{s^2 + 3s + 2}$$

The steady state value of the output of the system for a unit impulse input applied at time instant t = 1 will be :

(1) 1

(2) 2

(3) 0·5

(4) None of these

86. A unity feedback system, having an open loop gain

$$G(s)\,H(s) = \frac{K(1-s)}{(1+s)}$$

becomes stable when :

(1) $-1 < k < 1$

(2) $k > 1$

(3) $k < -1$

(4) All of these

87. The system $\dot{x} = Ax + Bu$ with $A = \begin{bmatrix} -1 & 2 \\ 0 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 0 \\ 1 \end{bmatrix}$ is :

(1) Stable and controllable

(2) Stable but uncontrollable

(3) Unstable but controllable

(4) Unstable and uncontrollable

88. For a unity feedback nonlinear system with open-loop transfer gain T, the stability condition following small-gain theorem is :

(1) $\|T\|_\infty > 1$

(2) $\|T\|_\infty + 1 = 0$

(3) $\|T\|_\infty < 1$

(4) $\|T\|_\infty - 1 = 0$

89. The flicker effect of fluorescent lamp is more pronounced at :

(1) Low frequency

(2) High frequency

(3) Low voltage

(4) High voltage

90. In arc welding, the temperature of the arc is of the order of :

(1) 150°C

(2) 1500°C

(3) 3500°C

(4) 10000°C

91. For a balanced three-phase, three-wire system with input power of 10 kW, at 0·9 power factor, the readings on both wattmeters are _____ respectively.

(1) 7 kW and 3 kW

(2) 6350 W and 3650 W

(3) 5 kW and 5 kW

(4) 7·6 kW and 2·4 kW

92. In three-phase power measurement using 2 wattmeter method, if the power factor of the load is 0·5 lagging, then the power measured by wattmeter 1 (W_1) and wattmeter 2 (W_2) would be such that :

(1) Both the wattmeters read the same value.

(2) The power is only measured by first wattmeter and reading of second wattmeter is zero.

(3) One wattmeter reading will be positive while the reading of second wattmeter will be negative.

(4) The reading of wattmeter 2 will be half of the reading of wattmeter 1.

93. For a star connection network, consuming power of 1·8 kW and power factor 0·5, the inductance and resistance of each coil at a supply voltage of 230 V, 60 Hz is :

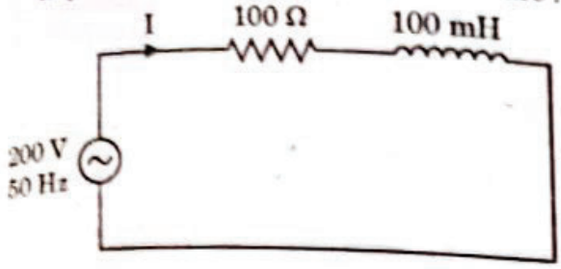
(1) 0·1 H, 8 Ω respectively

(2) 0·5 H, 10 Ω respectively

(3) 0·3 H, 7·4 Ω respectively

(4) 1·0 H, 7·0 Ω respectively

94. For the circuit given in figure, the approximate values of reactance, impedance, current and power factor are :



(1) 35 Ω, 90 Ω, 1 A and 1 respectively

(2) 31·4 Ω, 105 Ω, 1 A and 0·95 respectively

(3) 40 Ω, 100 Ω, 5 A and 0·5 respectively

(4) None of the above

95. Which of the following parameters are ***not*** specified in slack bus ?

(1) Voltage and phase angle

(2) Active power and reactive power

(3) Reactive power and voltage phase angle

(4) All of the above

96. In load flow studies of a power system, a voltage control bus is specified by :

(1) Real power and reactive power

(2) Reactive power and voltage magnitude

(3) Voltage magnitude and phase angle

(4) Real power and voltage magnitude

97. If the copper loss in a transformer at full load is 200 W, then the copper loss at half load would be :

(1) 400 W

(2) 200 W

(3) 100 W

(4) 50 W

98. A 5 kVA, 200 V / 400 V, single-phase transformer has a secondary terminal voltage of 387·6 volts when loaded. The voltage regulation of the transformer will be :

(1) 3·1%

(2) – 3·1%

(3) 3·2%

(4) – 3·2%

99. A single-phase 500 V / 100 V, 50 Hz transformer has a maximum core flux density of 1·5 Tesla and an effective core cross-sectional area of 50 cm^2. The number of primary and secondary turns are :

(1) 300 and 60 respectively

(2) 60 and 300 respectively

(3) 30 and 60 respectively

(4) 60 and 30 respectively

100. In a Y-connected circuit, between each line voltage and the nearest phase voltage, there is a phase angle of :

(1) 0°

(2) 30°

(3) 90°

(4) 120°

ASSISTANT ELECTRICAL INSPECTOR (HK) IN CHIEF ELECTRICAL INSPECTORATE

Examination held on 25-05-2023 (AN)

Specific Paper (Paper - 2) (Subject Code: 526)

KEY CHART

Question Booklet Series - 'P'

Total Marks : 300 **3 Mark for each question**

Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer
1	*4*	26	*2*	51	*3*	76	*1*
2	*3*	27	*3*	52	*4*	77	*1*
3	*2*	28	*4*	53	*1*	78	*2*
4	*3*	29	*2*	54	*2*	79	*1*
5	*1*	30	*4*	55	*2*	80	*1*
6	*3*	31	*3*	56	*3*	81	*1*
7	*3*	32	*4*	57	*3*	82	*3*
8	*2*	33	*1*	58	*3*	83	*1*
9	*2*	34	*3*	59	*2*	84	*1*
10	*1*	35	*3*	60	*3*	85	*1*
11	*2*	36	*1*	61	*3*	86	*1*
12	*4*	37	*3*	62	*3*	87	*1*
13	*2*	38	*4*	63	*3*	88	*4*
14	*3*	39	*1*	64	*3*	89	*4*
15	*2*	40	*4*	65	*3*	90	*1*
16	*1*	41	*3*	66	*1*	91	*1*
17	*3*	42	*4*	67	*1*	92	*4*
18	*3*	43	*2*	68	*1*	93	*3*
19	*2*	44	*2*	69	*1*	94	*1*
20	*3*	45	*3*	70	*3*	95	*2*
21	*4*	46	*2*	71	*1*	96	*2*
22	*1*	47	*4*	72	*1*	97	*2*
23	*1*	48	*2*	73	*3*	98	*4*
24	*2*	49	*3*	74	*1*	99	*4*
25	*2*	50	*2*	75	*3*	100	*2*

Note: Every question for which wrong answer has been given by the candidate, ¼ th (0.25) of the marks assigned for that question will be deducted.

Sd/-
Controller of Examination
Karnataka Public Service Commission
Bengaluru.

ASSISTANT ELECTRICAL INSPECTOR (HK) IN CHIEF ELECTRICAL INSPECTORATE

Examination held on 25-05-2023 (AN)

Specific Paper (Paper - 2) (Subject Code: 526)

KEY CHART

Question Booklet Series - 'Q'

Total Marks : 300 **3 Mark for each question**

Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer
1	*2*	26	*2*	51	*1*	76	*4*
2	*2*	27	*3*	52	*1*	77	*1*
3	*3*	28	*4*	53	*1*	78	*4*
4	*3*	29	*1*	54	*1*	79	*3*
5	*3*	30	*2*	55	*4*	80	*4*
6	*2*	31	*4*	56	*4*	81	*2*
7	*3*	32	*2*	57	*1*	82	*2*
8	*3*	33	*3*	58	*1*	83	*3*
9	*3*	34	*2*	59	*4*	84	*3*
10	*3*	35	*1*	60	*3*	85	*4*
11	*3*	36	*3*	61	*1*	86	*1*
12	*3*	37	*3*	62	*2*	87	*3*
13	*1*	38	*2*	63	*2*	88	*3*
14	*1*	39	*3*	64	*2*	89	*1*
15	*1*	40	*4*	65	*4*	90	*3*
16	*1*	41	*3*	66	*4*	91	*2*
17	*3*	42	*2*	67	*2*	92	*2*
18	*1*	43	*3*	68	*3*	93	*3*
19	*1*	44	*1*	69	*1*	94	*4*
20	*3*	45	*3*	70	*1*	95	*2*
21	*1*	46	*3*	71	*2*	96	*4*
22	*2*	47	*2*	72	*1*	97	*4*
23	*4*	48	*2*	73	*1*	98	*1*
24	*2*	49	*1*	74	*1*	99	*1*
25	*3*	50	*1*	75	*3*	100	*2*

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Examination held on 25-05-2023 (AN)

Specific Paper (Paper - 2) (Subject Code: 526)

KEY CHART

Question Booklet Series - 'R'

Total Marks : 300 **3 Mark for each question**

Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer
1	*3*	26	*2*	51	*2*	76	*3*
2	*4*	27	*2*	52	*2*	77	*3*
3	*2*	28	*4*	53	*4*	78	*3*
4	*2*	29	*4*	54	*2*	79	*3*
5	*3*	30	*2*	55	*3*	80	*3*
6	*3*	31	*3*	56	*2*	81	*1*
7	*4*	32	*1*	57	*1*	82	*1*
8	*1*	33	*1*	58	*3*	83	*1*
9	*3*	34	*2*	59	*3*	84	*1*
10	*3*	35	*1*	60	*2*	85	*3*
11	*1*	36	*1*	61	*3*	86	*1*
12	*3*	37	*1*	62	*4*	87	*1*
13	*4*	38	*3*	63	*3*	88	*3*
14	*1*	39	*1*	64	*2*	89	*1*
15	*4*	40	*1*	65	*3*	90	*2*
16	*1*	41	*1*	66	*1*	91	*4*
17	*1*	42	*2*	67	*3*	92	*2*
18	*4*	43	*2*	68	*3*	93	*3*
19	*4*	44	*3*	69	*2*	94	*2*
20	*1*	45	*4*	70	*2*	95	*3*
21	*1*	46	*2*	71	*1*	96	*4*
22	*4*	47	*4*	72	*3*	97	*1*
23	*3*	48	*4*	73	*3*	98	*2*
24	*1*	49	*1*	74	*2*	99	*2*
25	*2*	50	*1*	75	*3*	100	*3*

Note: Every question for which wrong answer has been given by the candidate, ¼ th (0.25) of the marks assigned for that question will be deducted.

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Examination held on 25-05-2023 (AN)

Specific Paper (Paper - 2) (Subject Code: 526)

KEY CHART

Question Booklet Series - 'S'

Total Marks : 300 **3 Mark for each question**

Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer	Question Number	Key Answer
1	*1*	26	*3*	51	*1*	76	*4*
2	*1*	27	*4*	52	*3*	77	*4*
3	*1*	28	*1*	53	*1*	78	*1*
4	*1*	29	*4*	54	*1*	79	*1*
5	*1*	30	*3*	55	*3*	80	*2*
6	*4*	31	*4*	56	*1*	81	*2*
7	*4*	32	*2*	57	*2*	82	*1*
8	*1*	33	*2*	58	*4*	83	*2*
9	*1*	34	*3*	59	*2*	84	*4*
10	*4*	35	*3*	60	*3*	85	*2*
11	*3*	36	*4*	61	*2*	86	*3*
12	*1*	37	*1*	62	*3*	87	*2*
13	*2*	38	*3*	63	*4*	88	*1*
14	*2*	39	*3*	64	*1*	89	*3*
15	*2*	40	*1*	65	*2*	90	*3*
16	*4*	41	*3*	66	*2*	91	*2*
17	*4*	42	*3*	67	*3*	92	*3*
18	*2*	43	*3*	68	*3*	93	*4*
19	*3*	44	*3*	69	*3*	94	*3*
20	*1*	45	*3*	70	*2*	95	*2*
21	*1*	46	*3*	71	*2*	96	*3*
22	*2*	47	*3*	72	*2*	97	*1*
23	*1*	48	*1*	73	*3*	98	*3*
24	*1*	49	*1*	74	*4*	99	*3*
25	*1*	50	*1*	75	*2*	100	*2*

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