TSSPDCL
Previous Paper
2015

PART - A

1. Theft of Electricity is dealt in _____ of Indian Electricity Rules.
   (A) Section 134 (B) Section 135
   (C) Section 136 (D) Section 137

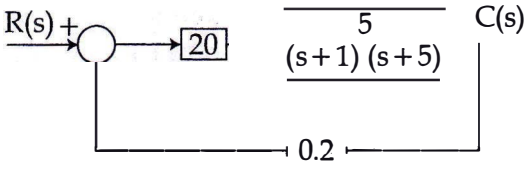
2. A series R-L-C circuit has, inductance L = 2 mH, resistance R = 1 kΩ and capacitan C = 5 μF. Determine the type of damping, if C is decreased 1000 times its previous value.
   (A) over damping (B) undamping
   (C) under damping (D) critical damping

3. When diameter and thickness of diaphragm of a pressure sensing unit are doubled, then i natural frequency will
   (A) be doubled (B) remains same (C) be quadrupled (D) be halved

4. Identify the increasing order of voltage regulation of the following dc generators same load :
   (A) differential compound, shunt and under compound
   (B) shunt, differential compound and under compound
   (C) under compound, shunt and differential compound
   (D) shunt, under compound and differential compound

5. In an arc furnace, maximum power input occurs at when the practical power factor of th primary is :
   (A) 0.75 < p.f < 0.80 (B) p.f = 0.707
   (C) 0.707 < p.f < 0.75 (D) 0.80 < p.f < 0.85

6. Find the damped frequency of oscillations of the following system :



   (A) 4 cycles/sec (B) $2/\pi$ rad/sec
   (C) 4 rad/sec (D) $4/\pi$ cycles/sec

7. A 60 Hz, 4-pole turbogenerator rated 100 MVA, 11 kV has an inertia constant of 8 MJ/MVA. If mechanical input is suddenly raised to 80 MW for an electrical load of 60 MW, then its rotor acceleration is (neglect mechanical and electrical losses)
   (A) 270 elec. deg/s^2 (B) 337.5 elec. deg/s^2
   (C) 225 elec. deg/s^2 (D) 810.0 elec. deg/s^2

8. Four parallel resistors connected in parallel with five series resistors are connected to a dc supply of 210 V. If 'R' is resistance of each resistor and supply current is 5 A, then the value of 'R' is :
(A) 42 Ω (B) 441/25 Ω (C) 10 Ω (D) 882/5 Ω

9. In CRO, during retrace time the electron beam travel _____ from _____of the screen.
(A) diagonally ..... top left to bottom right
(B) vertically ..... top to bottom
(C) horizontally ..... right to left
(D) vertically ..... bottom to top

10. A 3-ϕ, 400 V, balanced star connected load takes a current of 2.5 A and the power is measured by two wattmeters. If lower value of two positive readings is 707 W, what is the value of power factor ?
(A) cos (π/4) (B) cos (π/6) (C) cos (π/8) (D) cos (π/12)

11. In torque (T)-slip (s) characteristic of 3-ϕ squirrel cage induction motor, at maximum torque :
(A) dT/ds is maximum (B) dT/ds is zero
(C) ds/dT is zero (D) slip is maximum

12. To get minimum harmonic distortion in the output, a 3-ϕ to 3-ϕ cyclo-converter requires :
(A) 12 SCRs (B) 18 SCRs (C) 36 SCRs (D) 72 SCRs

13. If active input power of a 1-ϕ semi-converter with R-L load is 200 W at a firing angle of π/3, then neglecting harmonic component of output current calculate the reactive input power.
(A) 100√3 (B) 200√3 (C) 100/√3 (D) 200/√3

14. If two line currents of a 3-ϕ system are (500 + j 150) A and (−300 + j 600) A and its zero sequence component is (100 + j 50) A, then the line current in the other phase is :
(A) (0.1 − j 0.6) *k*A (B) (100 − j 500) A
(C) (0.1 + j 0.6) *k*A (D) (100 + j 500) A

15. Basically brushless dc motor is _____ and its torque -speed characteristics are similar to_____
(A) a dc motor ..... asynchronous motor
(B) a synchronous motor ..... dc motor
(C) an asynchronous motor ..... dc motor
(D) a dc motor ..... synchronous motor

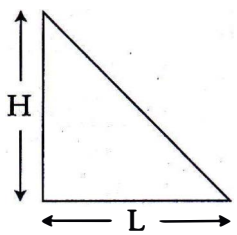
16. If 'D' is diameter of circular area 'A' swept by rotor and 'V' is wind speed, the wind power i proportional to

(A) AV^2 (B) A^2V^3 (C) D^2V^3 (D) D^3V^2

17. In Maxwell's inductance-capacitance bridge a resistance is in _____ with standar capacitor and in Ha ' bridge a resistance is in _____ with a standard capacitor.

(A) series ..... parallel (B) series ..... series
(C) parallel ..... parallel (D) parallel ..... series

18. To get maximum illumination at a fixed horizontal distance 'L' of 10 m, at what vertica height 'H' a lamp can be erected ?



(A) 7.07 m (B) 5.77 m (C) 5.00 m (D) 3.33 m

19. In a 3-phase alternator, if there is only magnetizing armature reaction, the load is :

(A) capacitive (B) inductive
(C) resistive (D) inductive and resistive

20. A solar pond is a combination of :

(A) Solar energy storage and heat collection
(B) Solar energy collection and heat storage
(C) Solar energy collection and energy storage
(D) All the above

21. A 3-ϕ voltage source inverter operates in 180° conduction mode with a star connected resistive load. If input dc voltage is 100 V, then the peak to peak output line voltage is

(A) 200/3 V (B) 200 V (C) 400/3 V (D) $200 \times \sqrt{3}$ V

22. The Potier triangle is always a/an _____ triangle in the measurement of voltage regulation of 3-ϕ alternator using _____ method.

(A) equilateral.....ZPF (B) isosceles.....ZPF
(C) right angle.....ZPF (D) obtuse.....MMF

23. A transformer operates 24 hours day at full-load. It's full-load efficiency is :
(A) equal all-day efficiency (B) more than all-day efficiency
(C) less than all-day efficiency (D) equal to maximum efficiency

24. The power factor of dielectric :
(A) is a function of temperature of the dielectric only
(B) depends only on voltage stress to which the dielectric is stressed
(C) always constant
(D) both (A) and (B)

25. If the time period of output voltage of a 1-ϕ bridge rectifier is 25/3 ms, then the supply frequency is :
(A) 30 Hz (B) 50 Hz (C) 25 Hz (D) 60 Hz

26. The respective 'B' parameters ratio and 'C' parameters ratio of nominal π model and nominal T model of medium transmission line are

(A) $\left(\frac{YZ}{4}+1\right), \left(\frac{YZ}{4}+1\right)$ (B) $\left(\frac{YZ}{4}+4\right), \left(\frac{4}{YZ+4}\right)$

(C) $\frac{1}{\left(\frac{YZ}{4}+1\right)}, \frac{1}{\left(\frac{YZ}{4}+1\right)}$ (D) $\left(\frac{4}{YZ+4}\right), \left(\frac{YZ+4}{4}\right)$

27. Generally in a power system network, the load is represented as a :
(A) Constant power in both load flow study and in stability study
(B) Constant power in load flow study and constant impedance in stability study
(C) Constant power in stability study and constant impedance in load flow study
(D) Constant impedance in both load flow study and in stability study

28. IDMT relays are used to protect the transformer against :
(A) Internal short circuits (B) Open circuits
(C) External short circuits (D) Oil leakage

29. The diagonal elements of a nodal admittance matrix are strengthened by adding :
(A) Shunt capacitors (B) Shunt inductances
(C) Generators (D) Resistive loads

30. The input and efficiency of a 3-ϕ, 50 Hz, 1350 rpm, 4 pole induction motor is 9 kW and 80% respectively. Calculate its stator losses.
(A) 900 W (B) 1.80 kW (C) 1 kW (D) 1.75 kW

31. In quadrilateral speed-time curve of electric traction system, the accelerations durin successive time periods are _____ respectively.
(A) positive, negative and negative (B) positive, zero and negative
(C) positive, positive and negative (D) positive, negative and zero

32 The eddy current loss in a dc generator is 400 W at 40 Hz frequency of reversal and constant flux density. When frequency is increased to 50 Hz., eddy current loss is :
(A) 256 W (B) 320 W (C) 500 W (D) 625 W

33. For selecting a circuit breaker, _____ should be determined.
(A) initial current that flows on occurrence of a short circuit only
(B) transient current that flows at the time of circuit interruption only
(C) resonant frequency only
(D) (A) and (B)

34. At full-load of a transformer, the iron loss and copper loss are 3000 W and 4000 W respectively. Then total loss at maximum efficiency is
(A) 7000 W (B) 6000 W (C) 8000 W (D) 4000 W

35. Which of the following gates can be used to realize all possible combinational logic functions?
(i) OR gate (ii) NOR gate (iii) Exclusive OR gate (iv) NAND gate (v) AND gate
(A) (iii), (iv) and (v) (B) (i), (iii) and (iv)
(C) (ii) and (iv) (D) (i) and (v)

36. If a plane angle subtended at a point is $\pi/3$ radians, then the solid angle subtended at the same point is
(A) $\frac{\pi(2-\sqrt{3})}{2}$ (B) $\frac{\pi(2+\sqrt{3})}{2}$ (C) $\pi(2-\sqrt{3})$ (D) $\pi(2+\sqrt{3})$

37. Speed of 3-ϕ , 2-pole, 60 Hz. Synchronous **motor** is **controlled** by a step-down 3-ϕ cyclo-converter. The maximum speed of the **motor can be** :
(A) 1200 rpm (B) 3000 rpm (C) **100**0 rpm (D) 3600 rpm

38. The unit heat rate characteristic of a thermal pow**er** unit shows :
(A) Heat input per kWh of output versus the **megawatt** output of unit
(B) Heat input per kW of output versus the megawatt output of unit
(C) Heat input per kWh of output versus the **megawatt** hour output of unit
(D) Heat input per kW of output versus the megawatt hour output of unit

39. Calculate the collector current of a silicon BJT, when dc current gain, base current and reverse saturation current of collector-base junction are 100, 20 μA and 500 nA respectively.
(A) 2.051 mA (B) 2 mA (C) 1.949 mA (D) 0.051 mA

40. The input voltage of a 1-ϕ full wave ac voltage controller is $v = 282.8 \sin(314t)$. If the load is resistive and output voltage is 162 V, then the input power factor is
(A) 0.573 (B) 0.900 (C) 0.810 (D) 0.656

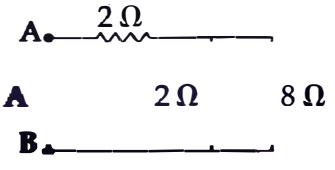
41. In a second order Type 1 system for continuous oscillations, the time response is proportional to : (f_n is natural frequency of oscillation)
(A) $1-\cos(4\pi f_n t)$ (B) $1-\cos(2\pi f_n t)$ (C) $1-\sin(2\pi f_n t)$ (D) $1-\sin(4\pi f_n t)$

42. A minimum clearance of 6.3 m to ground is required for overhead lines when operating voltages are :
(A) less than 66 kV
(B) lie between 66 kV and 110 kV
(C) more than 165 kV
(D) lie between 110 kV and 165 kV

43. The ac bypassing of R_F by C_F in a common emitter configuration :
(A) increases ac signal across emitter-base junction
(B) decreases ac signal across emitter-base junction
(C) decreases voltage amplification
(D) stabilizes the Q-point

44. The Lissajous pattern on the screen of a CRO is an ellipse with major axis in quadrant 2 and quadrant 4. Then the phase difference between two signals can be :
(A) 270° (B) 210° (C) 180° (D) 300°

45. What is voltage V_{AB} across the current source in the following figure ?



(A) 8/3 V (B) 36 V (C) 54/5 V (D) 27 V

46. A current controlled voltage source is equivalent to :
(A) series voltage feed-back amplifier
(B) shunt current feed-back amplifier
(C) shunt voltage feed-back amplifier
(D) series current feed-back amplifier

47. A separately excited dc motor operating in first quadrant is fed from 3-ϕ semi-converter. free-wheeling diode is open circuited, then the motor :
(A) can be operated in first quadrant
(B) can be operated in first & second quadrants
(C) can be operated in first & fourth quadrants
(D) cannot be operated

48. Choose the wrong statement from the following :
(A) The impedance relay is less effected from synchronizing power surges as compared reactance relay
(B) The impedance relay is less effected from arc resistance as compared with the relay
(C) The impedance relay is more effected from synchronizing power surges as compar to reactance relay
(D) The impedance relay is used for protecting medium length transmission lines

49. In tuned power lines, on load :
(A) the receiving end voltage is numerically equal to the sending end voltage
(B) the receiving end current is numerically equal to the sending end current
(C) there is no voltage drop
(D) all the above

50. In constant flux control of 3-ϕ synchronous motor, at medium and rated frequencies t supply voltage 'V' and supply frequency 'f' are related as : V = kf, where 'k' is a consta But, at very low frequencies, the supply voltage should be :
(A) greater than kf
(B) equal to $kf^{1.6}$
(C) less than kf
(D) equal to $k\sqrt{f}$

51. Choose the instantaneous power of a pure capacitive 1-ϕ ac circuit, if V_m, I_m and f are pe voltage, peak current and frequency of sinusoidal supply.
(A) $0.5V_mI_m\sin 4\pi ft$
(B) $-0.5V_mI_m\sin 2\pi ft$
(C) $-0.5V_mI_m\sin 4\pi ft$
(D) $0.5V_mI_m\sin 2\pi ft$

52. The state-space model $\dot{x}(t) = A(t)\dot{x}(t) + B(t)u(t)$, $y(t) = C(t)x(t) + D(t)u(t)$ represents _____ system.
(A) Discrete time-invariant
(B) Continuous time-invariant
(C) Continuous time-variant
(D) Discrete time-variant

53. The input current of a 3-ϕ ac voltage controller is found to be sinusoidal. Then the type of load is and firing angle (radians) is _____

(A) capacitive ..... zero (B) capacitive ..... $\pi/2$

(C) inductive ..... π (D) resistive 2π

54. An inductor of Q factor 10 is connected in series with a capacitor having a Q factor of 100. The overall Q factor of the circuit is :

(A) 100/11 (B) 11/100 (C) 110 (D) 1000

55. Identify the correct combination of respective Electric arc welding and Electric resistance welding methods :

(A) Butt welding and Seam welding

(B) Hydrogen shielding and Projection welding

(C) Seam welding and Coated electrode welding

(D) Coated electrode welding and Hydrogen shielding

56. If Poisson's ratio of a resistance wire strain gauge is 1.8, then neglecting piezo-resistive effects, its Gauge factor is

(A) 2.8 (B) 2.6 (C) 4.6 (D) 3.6

57. At a given load torque :

(A) Speed of 1-ϕ ac series motor = Speed of dc series motor

(B) Speed of 1-ϕ ac series motor > Speed of dc series motor

(C) Power output of 1-ϕ ac series motor > Power output of dc series motor

(D) Speed of ac series motor < Speed of dc series motor

58. A 1 - ϕ circuit with a supply voltage 'V' consists of resistance 'R' and reactance 'X' in series. The locus of current is a circle with a radius of _____ when 'R' is varied.

(A) V/X (B) V/2X (C) $V/\pi X$ (D) $V/2\pi X$

59. A synchronous generator is solidly grounded through neutral reactance X_n. If X_1, X_2 and X_0 are +ve, −ve and zero sequence reactances respectively and LG-fault current is more than 3-phase fault current, when

(A) $X_0 >> X_1 = X_2$ (B) $X_0 = X_1 = X_2$

(C) $X_0 << X_1 = X_2$ (D) $X_2 << X_0 = X_1$

60. Two 3-ϕ transformers cannot be operated in parallel, if their :

(A) kVAs are different (B) phase sequences are different

(C) % impedances are different (D) voltage ratios are different

61. The ratio of full-load volt-amperes to short-circuit volt-amperes is equal to :

(A) Short circuit MVA/Base MVA (B) Z (p.u)

(C) V (p.u) (D) Short circuit current (p.u)

In the operating region ($\delta < 70°$), the synchronizing power coefficient is (where δ is lo angle) :

(A) larger in a round rotor machine than in a salient pole machine

(B) same in both salient pole and round rotor machines

(C) larger in a salient pole machine than in a round rotor machine

(D) zero in both salient pole and round rotor machines

63 If per phase rotor resistance and reactance of a 3-ϕ slip ring induction motor at standstill 0.02 Ω and 0.2 Ω respectively then to obtain maximum starting torque, the external resist to be connected in each phase of rotor is :

(A) 0.22 Ω (B) 0.18 Ω (C) 100 Ω (D) 0.20 Ω

64. A differentiator is not usually used in control system, because it :

(A) reduces damping (B) increases error

(C) reduces gain margin (D) increases input noise

65. In case of over voltage protection scheme :

(A) Use of ground wire is shielding method whereas the use of spark gaps & lightni arrestors are non-shielding methods

(B) Use of ground wire is non-shielding method whereas the use of spark gaps & ligh arrestors are shielding methods

(C) Use of ground wire and spark gaps are shielding methods whereas the use of ligh arrestors are non-shielding methods

(D) Use of ground wire and lightning arrestors are shielding method whereas the use spark gaps are non- shielding methods

66. Choose an incorrect statement from the following regarding pin numbers of 8085 μP.

(A) Serial I/O ports are 5 and 4 respectively

(B) Reset out and CLK out are 3 and 37 respectively

(C) GND and V_{cc} are 20 and 40 respectively

(D) RST 6.5 and RST 7.5 are 7 and 8 respectively

67. If ϕ_m is peak value of flux, then the magnitudes of rotating magnetic field for 2-phase suppl and 3-phase supply are :

(A) ϕ_m and $1.5 \times \phi_m$ respectively (B) ϕ_m and $\sqrt{3} \times \phi_m$ respectively

(C) $\sqrt{2} \times \phi_m$ and $1.5 \times \phi_m$ respectively (D) $\sqrt{2} \times \phi_m$ and $\sqrt{3} \times \phi_m$ respectively

68. rms voltage of 35 V is applied across a 1-ϕ R-C series circuit. If the rms voltage across the capacitor is 28 V, then the angle between current and supply voltage is :

(A) $\sin^{-1}(0.60)$ (B) $\cos^{-1}(0.80)$ (C) $\tan^{-1}(0.75)$ (D) $\cot^{-1}(0.75)$

69. The phase difference between any two successive third harmonic voltages in 3-ϕ transformer is :

(A) zero radians (B) $\pi/2$ radians (C) $\pi/3$ radians (D) $2\pi/3$ radians

70. In a single phase R-L series circuit, if current lags the supply voltage by an angle ϕ, then the voltage across inductor _____ the supply voltage by an angle of _____

(A) lags ..... $(90 - \phi)$ (B) lags ..... ϕ (C) leads ..... $(90 - \phi)$ (D) leads ..... ϕ

71. The third order polynomial system $P(s) = a_1s^3 + a_2s^2 + a_3s + a_0$ is stable, if :

(A) $a_2a_0 > a_1a_3$ (B) $a_2a_3 < a_0a_1$ (C) $a_2a_0 < a_1a_3$ (D) $a_2a_3 > a_0a_1$

72. Choose an incorrect choice from the following. As load torque increases, speed of _____ motor decreases.

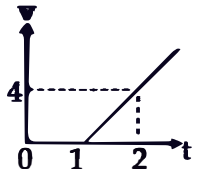
(A) dc series (B) dc shunt
(C) dc cumulative compound (D) dc differential compound

73. Regarding resonance of a two-branch parallel circuit having R-L combination in one branch and C in the other branch, which of the following statements are false ?

(a) impedance is maximum and current is minimum
(b) impedance is minimum and current is maximum
(c) two branch currents are exactly 180° with each other
(d) resonant frequency $f_r = \frac{1}{2\pi}\sqrt{\left(\frac{1}{LC} - \frac{R^2}{L^2}\right)}$

(A) (b) and (c) (B) (c) and (d) (C) (d) and (a) (D) (a) and (b)

74. Find the Laplace transform of the function shown in the following figure



(A) $\frac{4}{s^2}e^{-s}$ (B) $\frac{4}{s}e^{-s^2}$ (C) $\frac{1}{s^2}e^{-s^4}$ (D) $\frac{1}{s^4}e^{-s^2}$

75. Choose the correct order of electric discharge lamps in their increasing order of efficiencies (lumens/watt) :

(A) Sodium vapour lamp, Mercury vapour lamp, Neon lamp

(B) Neon lamp, Sodium vapour lamp, Mercury vapour lamp

(C) Neon lamp, Mercury vapour lamp, Sodium vapour lamp

(D) Mercury vapour lamp, Sodium vapour lamp, Neon lamp

76. Creep occurs in 1-ϕ energy meters when _____ is energized and it is mainly because of _____ for friction.

(A) current-coil ..... over-compensation

(B) pressure-coil ..... over-compensation

(C) pressure-coil ..... under-compensation

(D) current-coil ..... under-compensation

77. An astable multi-vibrator has :

(A) two-quasi stable states (B) one-quasi stable state

(C) two stable states (D) no stable state

78. The number of poles of 8/6 stepper motor can be :

(A) 3 (B) 4 (C) 6 (D) 7

79. Resistance grounding is normally used for :

(A) high voltage long over head transmission lines

(B) low voltage short over head transmission lines

(C) extra high voltage long over head transmission lines

(D) all the above

80. For measurement of radio frequency ac signals _____ type meter is used.

(A) thermo-couple (B) electro-static

(C) electro-dynamometer (D) rectifier

PART - B

81. The curved surface area of a cylindrical pillar is 176 m^2 and its volume is 616 m^3. Find the ratio of its diameter to its height.

(A) 7 : 2 (B) 7 : 3 (C) 3 : 7 (D) 2 : 11

82. Boddemma festival indicates the ending of _____

(A) Varsha rutu (B) Greeshma rutu (C) Sharad rutu (D) Vasantha rutu

83. The Razakars resisted the :

(A) integration of Hyderabad State into the United Andhra Pradesh

(B) integration of Hyderabad State into the then Telangana region

(C) integration of Hyderabad State into the dominion of India

(D) integration of Hyderabad State into the then Andhra region

84. Which of the following is also known as laughing gas ?

(A) Nitrogen dioxide (B) Nitrogen trioxide

(C) Nitrogen tetraoxide (D) Nitrous oxide

85. If one side of a square is doubled in length and the adjacent side is decreased by four centimetres, then the area of the resulting rectangle is 48 square centimetres larger than that of the original square. Find the length and width of the rectangle.

(A) 12 cm; 8 cm (B) 11 cm; 9 cm (C) 24 cm; 8 cm (D) 24 cm; 12 cm

86. What is the full form of ICRISAT ?

(A) The International Crafts Research Institute for the Semi-Arid Tropics

(B) The International Crops Research Institute for the Semi-Arid Tropics

(C) The Indian Crops Research Institute for the Semi-Arid Tropics

(D) The International Crops Related Institute for the Semi-Arid Tropics

87. Who was the last Nizam ruler of the erstwhile Hyderabad state ?

(A) Mir Nizam Ali Khan (B) Mir Akbar Ali Khan

(C) Mir Mahbub Ali Khan (D) Mir Osman Ali Khan

88. Identify the misspelt word from the given words.

(A) Margarine (B) Marvellous (C) Melifluence (D) Marionette

89. The 'Gentlemen's Agreement' was signed between Telangana and Andhra leaders in the year _____

(A) 1953 (B) 1956 (C) 1948 (D) 1969

90. If $10^y = 0.0001$; $3^x = 81^{-1}$, then the value of $2^{-x}.16^{1/y}$ =

(A) 2 (B) 3 (C) 10 (D) 1

91. Personal computers use a number of chips mounted on a main circuit board. What is the common name for such boards ?

(A) Main board (B) Motherboard (C) Dash board (D) Breadboard

92. A shopkeeper buys an item for ₹ 4,913. He offers 15% discount on selling price of item and yet gains 20%. Find the rate at which he marked the article.

(A) ₹ 5,965 (B) ₹ 6,936 (C) ₹ 6,136 (D) ₹ 5,158

93. Choose the appropriate option to complete the following sentence.

One of the time-tested ways of remembering a series of items is known as a _____ device.

(A) Intellectual (B) mnemonic (C) schematic (D) ingenious

94. Windows explorer is a program used to :

(A) Browse the internet

(B) Navigate the files or folders in windows operating system

(C) Discover the number of windows running in PC

(D) Calculate how many application is running

95. Which of the following countries does not have a boundary with India ?

(A) Myanmar (B) Bhutan (C) Mauritius (D) Nepal

96. Which of the following awards is given by the Ministry of Youth Affairs and Sports, Government of India, for excellence in sports coaching ?

(A) Dronacharya award (B) Rajiv Gandhi Khel Ratna award

(C) Arjuna award (D) C. K. Naidu award

97. What will be the Octal equivalent of $(22abc)_{16}$:

(A) 445274 (B) 452274 (C) 452724 (D) 425274

98. Identify the part of the sentence that has an error.

In spite the/doctor's stern warning/he continued taking/sugar in tea.

(A) (B) (C) (D)

99. In the following question, choose the word that is opposite in meaning to the given word.

CAPACIOUS

(A) Changeable (B) Foolish (C) Caring (D) Limited

100. The difference between people with access to computers and the Internet and those without this access is known as the :

(A) Digital divide. (B) Internet divide. (C) Web divide. (D) Cyber way divide

- o O o -

ELECTRICAL ENGINEERING A
PROVISIONAL KEY

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

ELECTRICAL ENGINEERING B
PROVISIONAL KEY

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

ELECTRICAL ENGINEERING C
PROVISIONAL KEY

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

ELECTRICAL ENGINEERING D
PROVISIONAL KEY

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