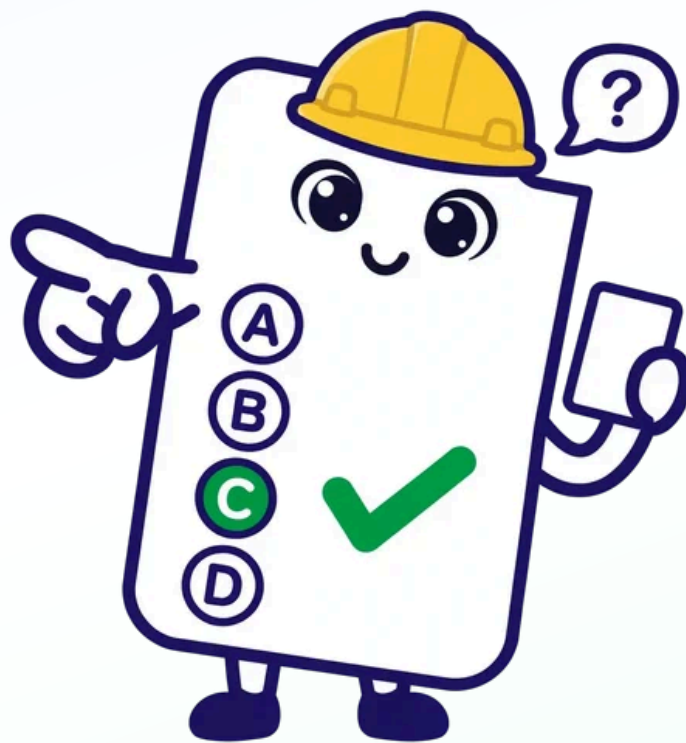




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Assistant Engineer Electrical Test Preparation Book 2026

A full model paper in the real Assistant Engineer Electrical Test pattern,
with answer key



100 MCQs

Real Assistant Engineer Electrical Test subject split

Answer key + online explanations

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1. Sit each model paper in one go, in 120 minutes, with a pen and the answer sheet of your choice.
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- Electrical Engineering: 80 MCQs per paper
- English: 5 MCQs per paper
- General Knowledge: 5 MCQs per paper
- Pakistan Studies: 4 MCQs per paper
- Pakistan Current Affairs: 3 MCQs per paper
- Islamic Studies: 2 MCQs per paper
- Computer Science and IT: 1 MCQs per paper



MODEL PAPER 1 OF 1

Assistant Engineer Electrical Test

100 MCQs · 120 minutes · answer key at the back



Electrical Engineering

80 MCQs

1. We can control a.c. power in a load by connecting _____?
- ☐ A Two SCRs in series ☐ B Two SCRs in parallel
☐ C Two SCRs in parallel opposition ☐ D None of the above
2. Which of the following capacitors will have the least value of breakdown voltage _____?
- ☐ A Mica ☐ B Paper
☐ C Ceramic ☐ D Electrolytic
3. Which of the following statements is correct for any closed loop system?
- ☐ A All the co-efficients can have zero value
☐ B All the co-efficients are always non-zero
☐ C Only one of the static error co-efficients has a finite non-zero value
☐ D None of the above
4. An isolator is installed _____?
- ☐ A to operate the relay of circuit breaker
☐ B as a substitute for circuit breaker
☐ C always independent of the position of circuit breaker
☐ D generally on both sides of a circuit breaker
5. If mica sheet is placed between the plates of a capacitor the capacity _____?
- ☐ A increases
☐ B decreases
☐ C increases then decreases
☐ D decreases then increases
6. The household energy meter is _____?
- ☐ A an indicating instrument ☐ B a recording instrument
☐ C an integrating instrument ☐ D none of the above

7. Rankine efficiency of a steam power plant_____?

- (A) improves in summer as compared to that in winter
- (B) improves in winter as compared to that in summer
- (C) is unaffected by climatic conditions
- (D) none of the above

8. The selection of an electric motor for any application depends on which of the following factors ?

- (A) Electrical characteristics
- (B) Mechanical characteristics
- (C) Size and rating of motors
- (D) Cost
- (E) All of the above

9. Which of following is normally ON device?

- (A) SIT
- (B) BJT
- (C) TRIAC
- (D) IGBT

10. The point of intersection of d.c. and a.c. load lines is called_____?

- (A) Saturation point
- (B) Cut off point
- (C) Operating point
- (D) None of the above

11. The band width, in a feedback amplifier_____?

- (A) remains unaffected
- (B) decreases by the same amount as the gain increase
- (C) increases by the same amount as the gain decrease
- (D) decreases by the same amount as the gain decrease

12. Ground resistance should be designed such that_____?

- (A) grounding resistance should be as low as possible
- (B) grounding resistance should be as high as possible
- (C) grounding resistance should be always zero
- (D) none of the above

13. A closed path made by several branches of the network is known as_____?

- (A) branch
- (B) loop
- (C) circuit
- (D) junction

14. Which quantity should be measured by the voltmeter ?

- (A) Current
- (B) Voltage
- (C) Power
- (D) Speed

15. Bus coupler is very essential in arrangement _____?

- (A) single bus
- (B) double bus, double breaker
- (C) main and transfer bus
- (D) all of the above

16. A 3-phase induction motor delta connected is carrying too heavy load and one of its fuses blows out. Then the motor _____?

- (A) will continue running burning its one phase
- (B) will continue running burning its two phase
- (C) will stop and carry heavy current causing permanent damage to its winding
- (D) will continue running without any harm to the winding

17. Practical way of obtaining static voltage equalization in series connected SCRs is by the use of _____?

- (A) One resistor across the string
- (B) Resistors of the same value across each SCR
- (C) Resistors of different values across each SCR
- (D) One resistor in series with each SCR

18. Most of the common metals have _____ structure?

- (A) linear
- (B) hexagonal
- (C) orthorhombic
- (D) cubic

19. Mass, in force-voltage analogy, is analogous to _____?

- (A) charge
- (B) current
- (C) inductance
- (D) resistance

20. Protection by fuses is generally not used beyond _____?

- (A) 20 A
- (B) 50 A
- (C) 100 A
- (D) 200 A

21. Kirchhoff's law is not applicable to circuits with _____?

- (A) lumped parameters
- (B) passive elements
- (C) distributed parameters
- (D) non-linear resistances

22. LISN is a device used to measure conducted emissions. LISN stands for _____?

- (A) Line integrated stabilization network
- (B) Line impedance stabilization network
- (C) Line integrated stored network
- (D) Laser integrated stabilization networking

23. The efficiency of a plant is of least concern when it is selected as _____?

- (A) peak load plant
- (B) casual run plant
- (C) either A. or (b)
- (D) base load plant

24. In the squirrel-cage induction motor the rotor slots are usually given slight skew _____?

- (A) to reduce the magnetic hum and locking tendency of the rotor
- (B) to increase the tensile strength of the rotor bars
- (C) to ensure easy fabrication
- (D) none of the above

25. COOLMOS device can be used in application up to power range of _____?

- (A) 1 KVA
- (B) 2 KVA
- (C) 500 VA
- (D) 100 KVA

26. Differential amplifiers are used in _____?

- (A) Instrumentation amplifiers
- (B) Voltage followers
- (C) Voltage regulators
- (D) Buffers

27. _____ is not a final control element?

- (A) Control valve
- (B) Potentiometer
- (C) Electropneumatic converter
- (D) Servomotor

28. To prevent the generation of static charges on rubber or flat leather _____?

- (A) surface is moistened
- (B) conductive dressing is done
- (C) oil compound dressing is done
- (D) talcum powder is sprayed on the surface

29. A 200 turn coil has an inductance of 12 mH. If the number of turns is increased to 400 turns, all other quantities (area, length etc.) remaining the same, the inductance will be _____?

- (A) 6 mH
- (B) 14 mH
- (C) 24 mH
- (D) 48 mH

30. Which of the following works on torque on the current carrying conductor placed in magnetic field ?

- (A) galvanometer
- (B) ammeter
- (C) voltmeter
- (D) all of the above

31. Following power plant has instant starting?

- (A) nuclear power plant
- (B) hydro power plant
- (C) diesel power plant
- (D) both B and C
- (E) none of the above

32. With direct water cooling it is possible to have ratings of about _____?

- (A) 200 MW
- (B) 300 MW
- (C) 400 MW
- (D) 600 MW

33. The curve between V and I of SCR when anode is positive w.r.t cathode and when anode is negative w.r.t cathode are known as _____?

- (A) both as forward characteristics
- (B) both as reverse characteristics
- (C) former as forward characteristics and later as reverse characteristics
- (D) former as reverse characteristics and later as forward characteristics

34. In a common-source JFET amplifier, the output voltage is _____?

- (A) 180° out of phase with the input
- (B) in phase with the input
- (C) 90° out of phase with the input
- (D) taken at the source

35. A control system working under unknown random actions is called _____?

- (A) computer control system
- (B) digital data system
- (C) stochastic control system
- (D) adaptive control system

36. The sparking between two electrical contacts can be reduced by inserting a _____?

- (A) capacitor in parallel with contacts
- (B) capacitor in series with each contact
- (C) resistance in line
- (D) none of the above

37. The square waveform of current has following relation between r.m.s. value and average value?

- (A) r.m.s. value is equal to average value
- (B) r.m.s. value of current is greater than average value
- (C) r.m.s. value of current is less than average value
- (D) none of the above

38. The power of a n-phase circuit can be measured by using a minimum of _____?

- (A) (n - 1) wattmeter elements
- (B) n wattmeter elements
- (C) (n + 1) wattmeter elements
- (D) 2n wattmeter elements

39. The capacity of large turbo-generators varies from _____?

- (A) 20 to 100 MW
- (B) 50 to 300 MW
- (C) 70 to 400 MW
- (D) 100 to 650 MW

40. Which of the following motors is usually preferred for kiln drives ?

- (A) Cascade controlled A.C. motor
- (B) Slip ring induction motor
- (C) Three phase shunt wound commutator motor
- (D) Any of the above

41. The most suited gate pulses given to the AC regulator with R - L load can be in the form of _____?

- (A) Continuous signal
- (B) Large isolating pulse transformer
- (C) A train of pulses
- (D) None of these

42. A capacitor consists of _____?

- (A) two insulators separated by a conductor
- (B) two conductors separated by an insulator
- (C) two insulators only
- (D) two conductors only

43. A control system with excessive noise, is likely to suffer from _____?

- (A) saturation in amplifying stages
- (B) loss of gain
- (C) vibrations
- (D) oscillations

44. Which of the following high resistance materials has the highest operating temperature ?

- (A) Kanthal
- (B) Manganin
- (C) Nichrome
- (D) Eureka

45. emf induced in a circuit according to Faradays law depends on the _____?

- (A) maximum magnetic flux
- (B) rate of change of magnetic flux
- (C) change in magnetic flux
- (D) initial magnetic flux

46. _____ is an instrument which measures the insulation resistance of an electric circuit relative to earth and one another _____?

- (A) Tangent galvanometer
- (B) Meggar
- (C) Current transformer
- (D) None of the above

47. An efficient and a well designed protective relaying should have _____?

- (A) good selectivity and reliability
- (B) economy and simplicity
- (C) high speed and selectivity
- (D) all of the above

48. In a transformer the energy is conveyed from primary to secondary _____?

- (A) through cooling coil
- (B) through air
- (C) by the flux
- (D) none of the above

49. CB used for over current protection of thyristor operates when the fault current is _____?

- (A) of long period
- (B) of short duration
- (C) both (A) and (B)
- (D) neither (A) nor (B)

50. The output impedance of a transistor connected in _____ arrangement is the highest?

- (A) common emitter
- (B) common collector
- (C) common base
- (D) none of the above

51. A phase lag lead network introduces in the output _____?

- (A) lag at all frequencies
- (B) lag at high frequencies and lead at low frequencies
- (C) lag at low frequencies and lead at high frequencies
- (D) none of the above

52. Persons preparing electrolyte should wear _____?

- (A) goggles or other face shield
- (B) rubber
- (C) rubber boots and gloves
- (D) all above safety devices

53. If three 15 μF capacitors are connected in series, the net capacitance is

- (A) 5 μF
- (B) 30 μF
- (C) 45 μF
- (D) 50 μF

54. The power factor of a single phase load can be calculated if the instruments available are _____?

- (A) one voltmeter and one ammeter
- (B) one voltmeter, one ammeter and one wattmeter
- (C) one voltmeter, one ammeter and one energy meter
- (D) any of the above

55. Which of the following characteristics should the line supports for transmission lines possess?

- (A) Low cost
- (B) High mechanical strength
- (C) Longer life
- (D) All of the above

56. In an actual transformer the iron loss remains practically constant from no load to full load because:_____?

- ☐ A value of transformation ratio remains constant
- ☐ B permeability of transformer core remains constant
- ☐ C core flux remains practically constant
- ☐ D primary voltage remains constant
- ☐ E secondary voltage remains constant

57. Which of the following heating methods has maximum power factor ?

- ☐ A Arc heating
- ☐ B Dielectric heating
- ☐ C Induction heating
- ☐ D Resistance heating

58. A 50 kW carrier is to be amplitude modulated to a level of 85%. What is the carrier power after modulation ?

- ☐ A 50 kW
- ☐ B 5 kW
- ☐ C 8 kW
- ☐ D 25 kW

59. The phase lag produced by transportation relays_____?

- ☐ A is independent of frequency
- ☐ B is inverseh'proportional to frequency
- ☐ C increases linearly with frequency
- ☐ D decreases linearly with frequency

60. In order to remove static electricity from machinery_____?

- ☐ A construct insulated cabins
- ☐ B insulate the machinery
- ☐ C ground the framework
- ☐ D humidify the surroundings

61. Conductance is reciprocal of_____?

- ☐ A resistance
- ☐ B inductance
- ☐ C reluctance
- ☐ D capacitance

62. The resistance of an ideal voltmeter is _____?

- ☐ A Low
- ☐ B Infinite
- ☐ C Zero
- ☐ D High

63. The phenomenon of rise in voltage at the receiving end of the open-circuited or lightly loaded line is called the_____?

- ☐ A Seebach effect
- ☐ B Ferranti effect
- ☐ C Raman effect
- ☐ D none of the above

64. To reverse the direction of rotation of a capacitor start motor while it is running we should _____ ?

- ☐ (A) disconnect motor from the supply till it stops then reconnect it to supply with reversed connection of main or auxiliary winding
- ☐ (B) disconnect motor from supply and immediately reconnect it to supply with reversed connections of the main winding
- ☐ (C) reverse the direction of connection of the auxiliary winding and after motor comes to rest then connect auxiliary winding to the supply
- ☐ (D) reverse the direction of connections of the auxiliary winding and immediately connect it to supply

65. Which of the following methods may be used to convert A.C. system to D.C ?

- ☐ (A) Rectifiers
- ☐ (B) Motor converters
- ☐ (C) Motor-generator sets
- ☐ (D) Rotary converters
- ☐ (E) All of the above

66. For a hole which of the following statements is incorrect ?

- ☐ (A) Holes can exist in certain semiconductors only
- ☐ (B) Holes can exist in any material including conductors
- ☐ (C) Holes may constitute an electric current
- ☐ (D) Holes can be considered as a net positive charge

67. Phase margin of a system is used to specify which of the following ?

- ☐ (A) Frequency response
- ☐ (B) Absolute stability
- ☐ (C) Relative stability
- ☐ (D) Time response

68. Out of the following which is an insulating material _____ ?

- ☐ (A) Copper
- ☐ (B) Gold
- ☐ (C) Silver
- ☐ (D) Paper

69. 74. Sparking occurs when a load is switched off because the circuit has high _____ ?

- ☐ (A) resistance
- ☐ (B) inductance
- ☐ (C) capacitance
- ☐ (D) impedance

70. A VTVM has _____ input resistance than that of a multi meter?

- ☐ (A) More
- ☐ (B) Less
- ☐ (C) Same
- ☐ (D) None of the above

71. The value of reheat factor normally varies from _____ ?

- ☐ (A) 0.5 to 0.6
- ☐ (B) 0.9 to 0.95
- ☐ (C) 1.02 to 1.06
- ☐ (D) 1.2 to 1.6

72. In a D.C. generator the critical resistance refers to the resistance of _____?

- (A) brushes
- (B) field
- (C) armature
- (D) load

73. Harmonics in 3 phase inverters can be reduced by using _____?

- (A) Passive filter
- (B) Active filter
- (C) Both passive and active filters
- (D) None of these

74. _____ ICs are the most commonly used?

- (A) Thin films
- (B) Monolithic
- (C) Hybrid
- (D) None of the above

75. In liquid level and electrical system analogy, voltage is considered analogous to _____?

- (A) head
- (B) liquid flow
- (C) liquid flow rate
- (D) none of the above

76. It is difficult to maintain oil filled cables _____?

- (A) Yes
- (B) No

77. Permeance is the reciprocal of _____?

- (A) flux density
- (B) reluctance
- (C) ampere-turns
- (D) resistance

78. It is required to measure the true open circuit e.m.f. of a battery. The best device is _____?

- (A) D.C. voltmeter
- (B) Ammeter and a known resistance
- (C) D.C. potentiometer
- (D) None of the above

79. Generating capacity connected to the bus bars and ready to take load when switched on is known as _____?

- (A) firm power
- (B) cold reserve
- (C) hot reserve
- (D) spinning reserve

80. A no-load test is performed on a transformer to determine _____?

- (A) core loss
- (B) copper loss
- (C) efficiency
- (D) magnetising current
- (E) magnetising current and loss



English

5 MCQs

81. Identify the MISTAKE in the following question: I remember going to the British museum one day to read for the treatment for some slight ailment of which I had a touch-hay fever, I fancy it was.

- ☐ A Going to
- ☐ B Read for
- ☐ C Of which
- ☐ D I had

82. Choose the correct option:

- ☐ A Hand up the answer sheet to me.
- ☐ B Hand over the answer sheet to me.
- ☐ C Hand down the answer sheet to me.
- ☐ D Hand for the answer sheet to me.

83. Consider the following sentence: He shouted, "Let me go". Which one of the following. stands for the "indirect speech" of the above sentence?

- ☐ A He requested that let him go
- ☐ B He shouted to let him go
- ☐ C He shouted to them to let him go.
- ☐ D He imported them to let me o.

84. Identify the errors and choose the correct option:

- ☐ A Gulliver travels was written to Swift.
- ☐ B Gulliver travels was written at Swift.
- ☐ C Gulliver's Travels was written by Swift.
- ☐ D Gullivers' Travel was written by Swift.

85. Choose the right option to complete the following sentences. Our reunion was completely _; who'd have guessed we could have booked the same flight.

- ☐ A Illogical
- ☐ B Expected
- ☐ C Fortuitous
- ☐ D Abandoned



General Knowledge

5 MCQs

86. Ramon Magsaysay Award is regarded as the _____ version of the Nobel Prize?

- ☐ A African
- ☐ B Asian
- ☐ C European
- ☐ D Chinese

87. ECL stands for _____?

- ☐ A Entry Control List
- ☐ B Exit Control List
- ☐ C Extended Control List
- ☐ D Error Correction List

88. IAEA (International Atomic Energy Agency) was founded on: _____?

- ☐ A June 19, 1947
- ☐ B July 29, 1957
- ☐ C August 09, 1967
- ☐ D None of These

89. The first oil well was drilled in the USA in the year _____?

- ☐ A 1857
 - ☐ B 1858
 - ☐ C 1859
 - ☐ D 1860
- Standardized & Admissions Tests

90. The term "Chukker" is associated with which of the following game?

- ☐ A Marathon
- ☐ B Polo
- ☐ C Swimming
- ☐ D Kabbadi



Pakistan Studies

4 MCQs

91. In which government's era the CPEC project was started?

- ☐ A PLM-N
- ☐ B PPP
- ☐ C Muslim League
- ☐ D PTI

92. Rowlatt Act came into operation in _____?

- ☐ A 1917
- ☐ B 1918
- ☐ C 1919
- ☐ D 1920

93. The inaugural session of the first Constituent Assembly of Pakistan was chaired by _____?

- ☐ A Quaid-e-Azam
- ☐ B Liaquat Ali Khan
- ☐ C Moti Lal Nehru
- ☐ D J.N. Mandal

94. The busiest seaport of Pakistan is _____?

- ☐ A Karachi Port
- ☐ B Bin Qasim
- ☐ C Gawadar
- ☐ D None of these



Pakistan Current Affairs

3 MCQs

95. Pakistan Army takes tank to _____ feet world record height.

- ☐ A 10000
- ☐ B 12000
- ☐ C 15000
- ☐ D None of These

96. Us suspends at least _____ million in security aid to Pakistan on 4-1-2018?

- ☐ A 500\$
- ☐ B 600\$
- ☐ C 800\$
- ☐ D 900\$

97. Which provincial government has okayed Rs 80m to establish 500 flats for police?

- ☐ A Sindh government
- ☐ B Punjab government
- ☐ C Kpk government
- ☐ D Balochistan government



Islamic Studies

2 MCQs

98. The study of Religions is called: _____?

- ☐ A Seismology
- ☐ B Theology
- ☐ C Gerontology
- ☐ D Etymology

99. Comb was invented by Prophet?

- ☐ A Nuh (A.S)
- ☐ B Daud (A.S)
- ☐ C Ibrahim (A.S)
- ☐ D Sulaiman (A.S)



Computer Science and IT

1 MCQs

100. Which coding scheme is used by IBM?

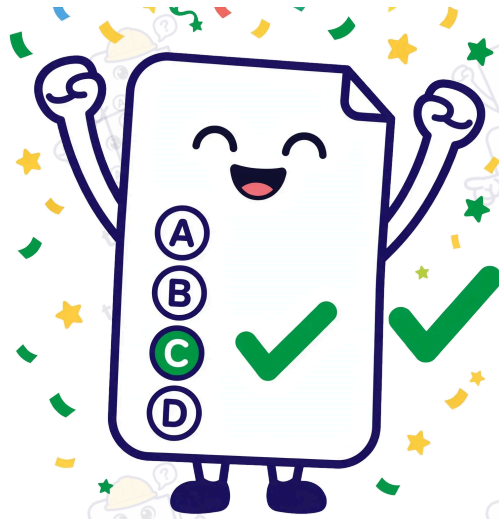
- ☐ A ASCII
- ☐ B EBCDIC (Extended Binary Coded Decimal Interchange Code)
- ☐ C BCD
- ☐ D Unicod

Answer key

Tap any answer to open its full explanation on TestUstad.

Model Paper 1

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



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