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Score: 24/100 (24.00%)

Code: 1547

1. Which bearing is supporting the shaft of moving coil assembly in a PMMC instrument?

- A) Steel bearings
B) Bush bearings
C) Jewelled bearings (Correct)
D) Gun metal bearings

2. Which characteristics enable the deflection of pointer in the attraction type moving iron meter?

- A) Weight of the soft iron pieces
B) Deflection is inversely proportional to current (Incorrect)
C) Deflection is independent of current direction
D) Deflecting and controlling torques are

3. Which control is used in repulsion type moving iron instrument to keep the pointer at zero position?

- A) Spring control**
C) Magnetic repulsion control (Incorrect)
B) Air damping control
D) Magnetic attraction control

4. Which frame is used for winding the coil of PMMC meter?

- A) Steel frame (Incorrect)
C) Ceramic frame
B) Wooden frame
D) Aluminium frame

5. How the sensitivity of voltmeter is determined?

- A) FSD current
B) Meter coil resistance
C) Ohms per volt rating (Correct)
D) Maximum voltage measurement

6. What is the name of the procedure carried out to ensure the trustworthy standards of the measuring instrument?

- A) Calibration (Correct)**
C) Re-alignment
B) Range test
D) Testing standards

7. What is the unit of inductance?

- A) Joule
B) Farad (Incorrect)
C) Henry
D) Watts

8. Which unit is used to measure capacitance value?

- A) Mho (Incorrect)
B) Ohm
C) Farad
D) Henry

9. What is the result of hysteresis loss in magnetic material?

- A) Back emf increases (Incorrect)
C) Magnetic flux increases
B) Eddy current decreases
D) Energy loss takes place

10. What is the name of effect of changing current in one coil, induces EMF in nearby coil?

- A) Coupling
C) Self induction
B) Induction (Incorrect)
D) Mutual induction

11. What is the main problem caused for severe pitting in relays?

- A) Low contact current (Incorrect)
C) Chatter during a slow release
B) Excessive contact current
D) Excessive number of operations

12. Why the transformer core is made as thin laminations?

- A) To minimize eddy current losses (Correct)**
C) To maximize eddy current losses
B) To increase the hysteresis losses
D) To increase core saturation losses

13. What is the power dissipation of the standard TTL chip?

- A) 5 mW/gate
C) 15 mW/gate
B) 10 mW/gate
D) 20 mW/gate (Incorrect)

14. Which factor influences the severity of electrical shock?

- A) Very low DC voltage (Incorrect)
C) Level of current in micro ampere
B) Duration of current passing
D) Person receives the shock

15. What is the use of screw driver?

- A) Hold the screws
C) Tighten or loosen bolts
B) Tighten or loosen screws
D) Tighten or loosen rivets (Incorrect)

16. What is the reason for electric fire?

- A) Deviation
C) Overloading (Correct)
B) Open circuit
D) Proper earthing

17. What is the effect of electric shock at very low voltage levels (Less than 40v)?

- A) Fibrillation
C) Burning of the skin
- 18.** What is the purpose of covering provided over the electrical conductor?
A) Increase current flow
C) Decrease voltage rating
- 19.** What is the percentage of conductivity of electric current in aluminium?
A) 0.22
C) 0.56
- 20.** How the single strand wire is called?
A) Hook - up wire
C) Flexible wire
- 21.** How many gauge numbers in SWG, changed to double the cross section area of the conductor?
A) Two gauge sizes decreased
C) Five gauge sizes increased
- 22.** What is the purpose of standard wire gauge (SWG)?
A) Measure current
C) Measure diameter of wire (Correct)
- 23.** What is the effect on the current flow with increased diameter of conductor?
A) Resistance increases (Incorrect)
C) More voltage dropped
- 24.** What is the relation of wire diameter with current carrying capacity of conductor?
A) Wire gets less heat
C) Inversely proportional
- 25.** Which terminal of the meter is connected for measuring electrical quantity?
A) Input terminal (Correct)
C) Output terminal
- 26.** Which electrolyte is used in lead-acid battery?
A) Zinc chloride
- B) Muscles contact (Incorrect)
D) Unpleasant tingling sensation
- B) Reduce current flow
D) Protection against weather (Correct)
- B) 0.47
D) 0.76 (Incorrect)
- B) Twisted wire (Incorrect)
D) Multistrand wire
- B) Four gauge sizes increased (Incorrect)
D) Three gauge sizes decreased
- B) Measure voltage
D) Measure insulation of wire
- B) Opposes more current
D) Allows high current flow
- B) Directly proportional**
D) Drops more voltage across it (Incorrect)
- B) Output terminal
D) Pointer mechanism
- B) Sulphuric acid (Correct)**

- C) Alkaline solution
D) Potassium hydroxide solution
- 27.** Which battery is used for cellular phones?
A) Nickel ion
C) Zinc chloride (Incorrect)
- 28.** How batteries are classified based on their working?
A) Dry cells and alkaline cells (Incorrect)
C) Primary cells and secondary cells
- 29.** Which method is adopted to charge a car battery with voltage rating of 2.3 V per cell?
A) Float charging method
C) Constant current charging method
- B) Trickle charging method (Incorrect)
D) Constant voltage charging method
- 30.** Which device is used to produce hard copy of a document in a computer?
A) Printer
C) Modem
- B) Monitor
D) Speaker (Incorrect)
- 31.** What is the advantage of SMPS in computer?
A) Bulky (Incorrect)
C) High frequency noise low
- B) High efficiency**
D) Servicing of SMPS is easy
- 32.** What is the full form of the abbreviation CD-ROM in computer?
A) Classified Device Read Only Memory
C) Connectivity Digital Read Only Memory
- B) Computer Disk Read Only Memory (Incorrect)
D) Compact Disk Read Only Memory
- 33.** Which codes are stored in computer ROM BIOS chip?
A) Change codes
C) Permanent codes
- B) Temporary codes (Incorrect)
D) Partial change codes
- 34.** Which memory device loses data on power failure?
A) RAM
C) Hard disc (Incorrect)
- B) ROM
D) CD ROM
- 35.** Which section is used by the processor to save instructions?
A) Memory
C) Graphics card
- B) System unit (Incorrect)
D) Micro processor
- 36.** Which three terminal voltage regulator IC has adjustable

output?		C) Higher switching repetition rates (Correct)	D) Suitability for medium power applications
A) LM 100	B) LM 105 (Incorrect)		
C) LM 305	D) LM 317		
37. What is the current rating of voltage regulator IC LM338K?			
A) 2A	B) 3A		
C) 4A (Incorrect)	D) 5A		
38. Which method is followed to troubleshoot the problem causing section by the symptom?			
A) Step by step method	B) Sensory test method		
C) Trial and error method (Incorrect)	D) Logical approach method		
39. What is the gate current (I _g) of the JFET, when reverse biased?			
A) Practically very low	B) Practically zero		
C) Practically unity	D) Practically infinity (Incorrect)		
40. Which is the N - channel FET?			
A) AC supply connected to drain termin	B) Main current flows through N-doped material		
C) Main current flows through P-doped material	D) S-terminal connected to positive (Incorrect)		
41. Which device is a unipolar transistor?			
A) UJT (Incorrect)	B) FET		
C) BJT	D) IGBT		
42. What is the input impedance of IGBT?			
A) Low input impedance	B) High input impedance		
C) Medium input impedance	D) Infinity input impedance (Incorrect)		
43. What is the advantage of MOSFET?			
A) Superior current conduction capability	B) Low gate signal power requirements (Correct)		
C) Very low on-state voltage	D) Low driving power		
44. Which electrical quantity controls the operation of the bipolar transistor device?			
A) Energy	B) Current		
C) Voltage (Incorrect)	D) Frequency		
45. Why the electronic device IGBT is preferred over the power MOSFET?			
A) Low switching speed	B) Higher driving power requirement		
46. Which is the output pin number IC 555 timer?			
A) Pin number 6	B) Pin number 5		
C) Pin number 5 (Incorrect)	D) Pin number 3		
47. What is successive approximation (SAR)?			
A) Method of IC fabrication	B) Method of D/A conversion (Correct)		
C) Method of D/A conversion	D) Method of SMT		
48. Which is the major factor determines the quality performance of A/D converter?			
A) Depends on data latch (Incorrect)	B) Measuring parameter		
C) Measuring parameter	D) Conversion cycle		
49. What is the minimum forward current I _f for single colour LEDs?			
A) 5 MA	B) 10 MA		
C) 20 MA	D) 30 MA (Incorrect)		
50. What is the forward voltage drop of single colour Red LED?			
A) 1.8 V	B) 2 V		
C) 2.1 V (Incorrect)	D) 2.2 V		
51. What is the typical forward voltage drop of the RED colour LED?			
A) 1.8 V	B) 2 V		
C) 2.1 V	D) 2.2 V (Incorrect)		
52. What is the range of photo current for photo transistor BPX 38?			
A) 0.1MA to 1.2MA	B) 0.2MA to 1.6MA		
C) 0.3MA to 2.7MA (Incorrect)	D) 0.4MA to 3.8MA		
53. What is the type of transistor BPX81?			
A) Uni - Junction transistor	B) NPN - Photo transistor		
C) PNP - Photo transistor (Incorrect)	D) Audio frequency transistor		
54. Which circuit uses photo-darlington devices?			
A) DC circuits (Correct)	B) Counter circuits		
C) Amplifier circuits	D) AC powered circuits		
55. Which of the device is opto-coupled TRIACS?			

- A) BT136
C) 2N2648
- B) B3202 (Correct)**
D) MOC3020

56. What is the percentage of charge accumulated by the capacitor at the end of 2 time constant limit?

- A) 0.4 (Incorrect)
C) 0.632
- B) 0.5
D) 0.864

57. How gate is biased in JFET?

- A) AC supply function
C) Reverse biased (Correct)
- B) Forward biased
D) Dual supply function

58. Which is the N - channel FET?

- A) AC supply connected to drain termin
B) Main current flows through N-doped material
- C) Main current flows through P-doped material (Incorrect)
D) S-terminal connected to positive

59. What is the switching speed of solid state relays?

- A) 1 to 25 nano seconds
C) 1 to 100 nano seconds
- B) 10 to 60 nano seconds (Incorrect)
D) 1 to 100 milli seconds

60. What is the maximum current ratings of solid state relays available in high power packages?

- A) 1 Amp (Incorrect)
C) 40 Amp
- B) 10 Amp
D) 100 Amp

61. Which is the drain current (I_d) in JFET?

- A) Electron from drain to gate (Incorrect)
C) Electron from drain to source
- B) Electron from source to drain**
D) Electron from gate to source

62. What is the maximum power dissipation P_{max} for BF 245B?

- A) 100 mw
C) 300 mw (Correct)
- B) 200 mw
D) 400 mw

63. Which semiconductor devices are composed inside the solid state relays?

- A) Diodes and transistors
C) MOSFETs and IGBTs
- B) Thyristor and transistors**
D) UJYs and FETs (Incorrect)

64. What is the function of solid state relay(SSR)?

- A) Low pass filter
C) High gain amplifier
- B) High frequency oscillator
D) High speed switching (Correct)

65. How the lamp failures caused by the high inrush currents

in lamp dimmer circuits using TRIAC is eliminated?

- A) By the fuse
C) Using Safety resistor (Incorrect)
- B) Using MCB
D) By soft start circuit

66. What type of control is used for FET?

- A) Resistance controlled device
C) Current controlled device
- B) Voltage controlled device**
D) Frequency controlled device (Incorrect)

67. Which characteristics exhibits the current conduction increases while the voltage across the devices decreases in a DIAC?

- A) Linearity characteristics
C) Positive resistance characteristics
- B) Negative resistance characteristics**
D) Nonlinearity characteristics (Incorrect)

68. How the solid state relays are working for increased lifetime?

- A) Bulky profile
C) Spark generated during switching (Incorrect)
- B) Slower in operations
D) No moving parts to wear and tear

69. Which type of defects are occurring in solid state relays?

- A) More sparking
C) Tendency to fail open
- B) Intermittent working
D) Tendency to fail shorted (Correct)

70. When does the zener diode begins to conduct in the reverse biased condition?

- A) When bias voltage reached 0.7V
C) Voltage across zener reached 0.3V
- B) After the barrier voltage cancelled
D) Voltage across it reached the zener voltage (Correct)

71. Which is the first step followed in troubleshooting of electronic circuit?

- A) Thermal test (Incorrect)
C) Mechanical test
- B) Chemical test
D) Physical and sensory test

72. What is the disadvantage of the two diode full wave rectifier compared with a bridge rectifier?

- A) DC output level is higher
C) The need of bulky transformer (Correct)
- B) The ripple frequency is higher
D) Each diode carries half the load current

73. Which impurity is added to pure semiconductor to form

N-type material?

- A) Boron
- C) Arsenic (Correct)**
- B) Indium
- D) Gallium

74. What is the name of the process of converting AC into DC voltage?

- A) Inverting
- B) Rectifying**
- C) Amplifying (Incorrect)
- D) Demodulating

75. What is the peak to peak voltage in a bridge rectifier circuit with load current of 10 mA, capacitance of 470 F and 50 Hz supply frequency?

- A) 0.213 v**
- B) 1.525 v
- C) 2.134 v
- D) 3.567 v (Incorrect)

76. How the mechanical zero error of panel meter is corrected?

- A) By replacing pointer
- B) By replacing moving coil (Correct)**
- C) By replacing moving coil
- D) Keeping the meter in vertical position

77. At which temperature the 6040 solder start meeting?

- A) 100 Degree Centigrade (Incorrect)
- B) 200 Degree Centigrade**
- C) 300 Degree Centigrade
- D) 380 Degree Centigrade

78. What is the range of temperature used in soldering station?

- A) 150 Degree Centigrade to 450 Degree Centigrade**
- B) 450 Degree Centigrade to 600 Degree Centigrade (Incorrect)
- C) 600 Degree Centigrade to 800 Degree Centigrade
- D) 800 Degree Centigrade to 1000 Degree Centigrade

79. What is the name of flux used for soldering electronic components?

- A) Resin
- B) Rosin**
- C) Mild acid (Incorrect)
- D) Organic acid

80. What is the full form of the abbreviation SPDT used in switches?

- A) Single Phase Dual Throw
- B) Single Pole Single Throw (Incorrect)
- C) Single Pole Double Throw**
- D) Shared Pole Double Throw

81. Which ratio of tin-lead combination is used for electronic component soldering work?

- A) 40:60
- B) 20:40
- C) 60:40:00 (Correct)**
- D) 63:37:00

82. When does the rosin flux melts in a soldering process?

- A) After the solder melts
- B) When the solder is melting
- C) During the solder is melting (Incorrect)
- D) When the solder is heated**

83. Which soldering instrument has hot air blowing facility?

- A) Soldering iron
- B) Soldering station**
- C) Wave soldering machine
- D) Temperature controlled soldering iron (Incorrect)

84. Which gauge number of rosin-cored solder is suitable for soldering medium sized joints?

- A) 16 gauge rosin cored (Incorrect)
- B) 18 gauge rosin cored**
- C) 22 gauge rosin cored
- D) 24 gauge rosin cored

85. What is the effect of over heating on soldering a joint?

- A) Cold joint
- B) Poor wetting (Incorrect)
- C) Dull grainy surface**
- D) Flux trapped against lead

86. What is the name of defect if the flux is unable to remove the tarnish from the soldered joint?

- A) Cold joint**
- B) Poor wetting
- C) Pits and voids
- D) Dull gravity surface (Incorrect)

87. Why the solvent Iso Propyl Alcohol (IPA) is used on the solder joint?

- A) To help the corrosive action
- B) Cleaning before soldering the joint
- C) To break down the acid within the joint (Incorrect)
- D) Remove residual flux and prevent corrosion**

88. What is the defect on the soldered joint, if it is cooled by blowing air?

- A) Poor wetting
- B) Pits and voids
- C) Dry solder joint**
- D) Dull grainy surface (Incorrect)

89. Which coding system for transistor type numbering system is followed by American standard?

- A) JIS standard
- B) Home codes
- C) JEDEC standard**
- D) PRO-ELECTRON standard (Incorrect)

90. What in the current gain of a common ? base amplifier?

- A) Unity
- B) Infinity
- C) Greater than 1 (Incorrect)
- D) Less than 1**

91. What is the name of multi-stage amplifiers?

- A) Cascoded amplifier
C) Complementary symmetry amplifier (Incorrect)
- B) Cascaded amplifier**
D) Darlington pair amplifier

92. Which configuration of transistor amplifier is most commonly used in electronic circuits?

- A) Common base configuration
C) Common collector configuration
- B) Common emitter configuration**
D) Common drain amplifier configuration (Incorrect)

93. Why transistors made of silicon is preferred over the germanium semiconductor material?

- A) Complex design (Incorrect)
C) Requires complicated bias arrangement
- B) Higher thermal stability**
D) Silicon transistor needs low cut-in-voltage

94. Why NPN type of transistors are preferred over the PNP type transistors?

- A) NPN has lower switching speed (Incorrect)
C) NPN has higher switching speed
- B) NPN has good bias stability
D) Low operating voltage

95. What type of packaging is generally used to transistors utilized for low power amplification?

- A) Metal packaging
C) Ceramic packaging
- B) Plastic packaging**
D) Plastic packaging with metal heatsinks (Incorrect)

96. What is the advantage of using bias in transistor circuits?

- A) Provides positive feedback
C) Easily sets saturated
- B) Never reach saturation**
D) Gives maximum distortion (Incorrect)

97. What is the purpose of using positive feedback in amplifiers?

- A) To produce modulation
C) To produce oscillation
- B) To produce demodulation (Incorrect)
D) To produce multiplexion

98. Why the complementary - symmetry amplifier is preferred over the other types of amplifier configurations?

- A) To minimize the gain
C) To get more voltage gain
- B) To get less distortion (Incorrect)
D) To eliminate the transformer

99. What is the use of clamper in electronic circuits?

- A) For slicing both peaks
C) For negative peak clipping
- B) For positive peak clipping
D) For DC component restoration (Correct)

100. When does the biased positive clipper removes the portion of input signal?

- A) During the negative half cycle of input
C) Signal voltage equals the bias battery voltage (Incorrect)
- B) Signal voltage is lesser than bias battery
D) Signal voltage becomes greater than bias battery voltage