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**Score: 57/60 (95.00%)**

**Code: 8086**

1. How many transistors are built inside the Very Large Scale Integration (VLSI) IC package?

- A) **1000 and above (Correct)**      B) 1 to 10 transistors  
 C) 10 to 100 transistors      D) 100 to 1000 transistors

2. Which IC package consist of 100 to 1000 transistors?

- A) **Large scale integration (LSI) (Correct)**      B) Small scale integration (SSI)  
 C) Medium scale integration (MSI)      D) Very large scale integration (VLSI)

3. Which is the 3 terminal, negative voltage regulator IC?

- A) LM 320      B) LM 340  
 C) **IC 7905 (Correct)**      D) IC 7812

4. Which three terminal voltage regulator IC has adjustable output?

- A) LM 100      B) LM 105  
 C) LM 305      D) **LM 317 (Correct)**

5. What is the range of output voltage of regulator IC LM 317?

- A) 0 to 25 V      B) 0 to 30 V  
 C) 0 to 32 V      D) **1.2 V to 32 V (Correct)**

6. Which type of voltage regulator is IC 723?

- A) Multipin variable voltage regulator      B) Three pin positive voltage regulator  
 C) Three pin negative voltage regulator      D) **Three pin adjustable voltage regulator (Correct)**

7. What is the resonant frequency range of a crystal?

- A) Between 0.1 and 1MHz      B) Between 0.1 and 10 MHz  
 C) Between 0.5 and 25 MHz      D) **Between 0.5 and 30 Mhz (Correct)**

8. Which circuit is determined by the frequency of LC tank circuit?

- A) **Oscillator (Correct)**      B) Amplifier  
 C) Multiplexed      D) Demodulator

9. What type of arrangement is required to sustain the oscillations of the oscillator circuit?

- A) Provide negative feedback      **B) Provide regenerative feedback (Correct)**  
 C) Increase the bias voltage      D) Increase the value of inductor

10. What type of feed back is used by the Wein-bridge oscillator to oscillate the signal?

- A) No feedback      B) Positive feedback  
 C) Negative feedback      **D) Both positive and negative feedback (Correct)**

11. How to improve the frequency stability in oscillator circuits?

- A) Increase the supply voltage      **B) By using quartz crystal (Correct)**  
 C) Using L and C      D) Improve the property of circuits

12. Which is the transistor used to operate the Colpitts oscillator?

- A) AC 127      **B) BF 194B (Correct)**  
 C) BC 148B      D) AC 188

13. What is the common and popular application of U.J.T?

- A) Multivibrator      B) Voltage regulator  
 C) **Relaxation oscillator (Correct)**      D) Motor speed controller

14. What is the maximum forward gate current ( $I_g$ ) for BFW10 JFET?

- A) 5 mA      B) 8 mA  
 C) **10 mA (Correct)**      D) 20 mA

15. What is the package type for BF 245B?

- A) TO-72 (Incorrect)      **B) TO-92**  
 C) TO-82      D) TO-102

16. How gate is biased in JFET?

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

17. What is the gate current ( $I_g$ ) of the JFET, when reverse biased?

- A) Practically very low      **B) Practically zero (Correct)**

C) Practically unity                      D) Practically infinity

18. Which device is a unipolar transistor?

- A) UJT                                      **B) FET (Correct)**  
C) BJT                                      D) IGBT

19. Which is the package type for the JFET BFW10?

- A) TO-62                                    **B) TO-72 (Correct)**  
C) TO-82                                    D) TO-92

20. What is the term stands for TRIAC?

- A) Triode Alternate control    B) Triode DC semiconductor  
**C) Triode AC semiconductor (Correct)**    D) Triode Access console

21. What is the code number of TRIAC?

- A) 2N2646                                B) BFW10 (Incorrect)  
**C) BT136**                                D) 2N1597

22. Which current flows in TRIAC between MT1 and MT2?

- A) Conventional current                **B) Principal current (Correct)**  
C) Reverse current                        D) Leakage current

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

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

24. Which is the device made and interconnected by two transistors?

- A) UJT                                      **B) SCR (Correct)**  
C) FET                                      D) LED

25. How many layers of PN - junctions are used in SCR fabrication?

- A) Two layer two junctions                **B) Four layer three junctions (Correct)**  
C) Three layer three junctions                D) Three layer four junctions

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

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

27. Which measuring instrument is used to make quick test on a TRIAC?

- A) Ammeter                                **B) Ohmmeter (Correct)**  
C) Voltmeter                                D) Oscilloscope

28. What type of control is used for FET?

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

29. Which parameter controls the current flow in a BI-polar transistor?

- A) Voltage                                    **B) Current (Correct)**  
C) Frequency                                D) Resistance

30. Which component filter the ripples in the rectifier circuit?

- A) DIAC                                      B) Diode  
C) TRIAC                                      **D) Capacitor (Correct)**

31. Which parameter is maintained constant in zener diode?

- A) Power                                      B) Current  
**C) Voltage (Correct)**                                D) Resistance

32. What is the meaning of maximum safe reverse voltage across a diode?

- A) PIV voltage (Correct)**                                B) Knee voltage  
C) Break down voltage                                D) Reverse break down voltage

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

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

34. What is the output pulse frequency of the full wave rectifier with input frequency of 50 Hz?

- A) 40 Hz                                      B) 60 Hz  
**C) 100 Hz (Correct)**                                D) 200 Hz

35. Which diode is used in low power communication circuits?

- A) Signal diodes (Correct)**                                B) Rectifier diodes  
C) Switching diodes                                D) High power diodes

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

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

37. What is the process of adding impurities to a pure semiconductor material?

**A) Doping (Correct)**

C) Forming

B) Etching

D) Diffusion

38. Which impurity is added to form P - type semiconductor material?

A) Arsenic

C) Antimony

**B) Gallium (Correct)**

D) Phosphorus

39. Which impurity is added to pure semiconductor to form N-type material?

A) Boron

**C) Arsenic (Correct)**

B) Indium

D) Gallium

40. What is the output frequency of the pulsating DC in a two diode fullwave rectifier?

A) Half of the input A/C frequency

C) Same frequency of the A/C input

**B) Double the input A/C frequency (Correct)**

D) Three times the input A/C frequency

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

A) Inverting

C) Amplifying

**B) Rectifying (Correct)**

D) Demodulating

42. Which bonding material is used for soldering a joint?

A) Oil

C) Acid

**B) Flux (Correct)**

D) Grease

43. At which temperature the 6040 solder start meeting?

A) 100 Degree Centigrade

C) 300 Degree Centigrade

**B) 200 Degree Centigrade (Correct)**

D) 380 Degree Centigrade

44. Which step is important for soldering a joint?

**A) Heating the joint (Correct)**

C) Pasting the joint

B) Cooling the joint

D) Cleaning the joint

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

**A) 150 Degree Centigrade to 450 Degree Centigrade (Correct)**

C) 600 Degree Centigrade to 800 Degree Centigrade

B) 450 Degree Centigrade to 600 Degree Centigrade

D) 800 Degree Centigrade to 1000 Degree Centigrade

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

A) Resin

C) Mild acid

**B) Rosin (Correct)**

D) Organic acid

47. How many types of soldering is used for joining metal surfaces?

**A) Two (Correct)**

C) Four

B) Five

D) Three

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

A) Single Phase Dual Throw

**C) Single Pole Double Throw (Correct)**

B) Single Pole Single Throw

D) Shared Pole Double Throw

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

A) 40:60

**C) 60:40:00 (Correct)**

B) 20:40

D) 63:37:00

50. What is the full of the abbreviation DPDT used in switches?

A) Dual Phase Dual Throw

C) Direct Pole Double Throw

B) Double Pole Direct Throw

**D) Double Pole Double Throw (Correct)**

51. How much time is required to make a quality soldered joint using soldering iron?

**A) 3 - 7 seconds (Correct)**

C) 10 - 15 seconds

B) 7 - 10 seconds

D) 15 - 20 seconds

52. Which type of soldering is used for electronic circuit?

A) Brazing

C) Hot soldering

**B) Soft soldering (Correct)**

D) Hard soldering

53. Which tool works on the principle of air suction?

A) Soldering iron

C) Desoldering braid

B) Soldering wick

**D) Desoldering pump (Correct)**

54. How the flux residue is removed after soldering a joint?

A) Water

C) Organic flux

B) Petrol

**D) Isopropyl alcohol (Correct)**

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

A) Cold joint

**C) Dull grainy surface (Correct)**

B) Poor wetting

D) Flux trapped against lead

56. 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

**D) Remove residual flux and prevent corrosion (Correct)**

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

A) JIS standard

B) Home codes

**C) JEDEC standard (Correct)**

D) PRO-ELECTRON standard

58. What is the current gain of common collector amplifier?

A) Low

B) High

C) Medium

**D) Very high (Correct)**

59. What is the current gain of a common emitter base amplifier?

A) Unity

B) Infinity

C) Greater than 1

**D) Less than 1 (Correct)**

60. What is the meaning of first letter indicated in the transistor code number BC 107?

A) Germanium material used

**B) Silicon material used (Correct)**

C) Antimony material used

D) Indium material used