

Student: Harsrha SA
Score: 12/61 (19.67%)

Code: 4042

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

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

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

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

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 (Incorrect) D) **LM 317**

5. How much is the maximum load current of the negative voltage regulator IC 7912?

- A) 1.0 A B) 1.5 A
 C) **2.0 A** D) 0.55 A (Incorrect)

6. Which type of voltage regulator is IC 723?

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

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. What is the difference of Colpitts oscillator compare to Hartley oscillator?

- A) Uses split inductor B) **Uses split capacitor**
 C) Uses crystal oscillator (Incorrect) D) Uses SCR combination

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

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

10. Which circuits commonly use parallel-fed Hartley oscillators?

- A) Stereo amplifiers (Incorrect) B) **Radio receivers**
 C) Television receivers D) Automatic voltage stabilizers

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

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

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

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

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

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

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

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

15. Which parameter is maintained constant in zener diode?

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

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

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

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

A) When bias voltage reached 0.7V (Incorrect)

C) Voltage across zener reached 0.3V

B) After the barrier voltage cancelled

D) Voltage across it reached the zener voltage

18. 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

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

A) Signal diodes

B) Rectifier diodes

C) Switching diodes

D) High power diodes (Incorrect)

20. 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

D) Each diode carries half the load current (Incorrect)

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

A) Doping

B) Etching

C) Forming

D) Diffusion (Incorrect)

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

A) Arsenic

B) Gallium (Correct)

C) Antimony

D) Phosphorus

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

A) Boron

B) Indium

C) Arsenic

D) Gallium (Incorrect)

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

A) Half of the input A/C frequency

B) Double the input A/C frequency

C) Same frequency of the A/C input (Incorrect)

D) Three times the input A/C frequency

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

A) Inverting (Incorrect)

B) Rectifying

C) Amplifying

D) Demodulating

26. What is the effect on the output voltage in a bridge rectifier circuits, with one diode open?

A) Very low voltage

B) No output DC voltage

C) Full output rated voltage

D) Half of the rated output voltage (Correct)

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

A) Oil

B) Flux

C) Acid

D) Grease (Incorrect)

28. Which step is important for soldering a joint?

A) Heating the joint (Correct)

B) Cooling the joint

C) Pasting the joint

D) Cleaning the joint

29. 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

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

A) Resin

B) Rosin

C) Mild acid

D) Organic acid (Incorrect)

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

A) Two

B) Five

C) Four

D) Three (Incorrect)

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

A) Single Phase Dual Throw

B) Single Pole Single Throw

C) Single Pole Double Throw

D) Shared Pole Double Throw (Incorrect)

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

A) 40:60 (Incorrect)

B) 20:40

C) 60:40:00

D) 63:37:00

34. 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

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

A) Dual Phase Dual Throw

B) Double Pole Direct Throw

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

A) JIS standard
C) JEDEC standard

B) Home codes (Incorrect)
D) PRO-ELECTRON standard

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

A) 3 - 7 seconds (Correct) B) 7 - 10 seconds
C) 10 - 15 seconds D) 15 - 20 seconds

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

A) Low B) High
C) Medium (Incorrect) **D) Very high**

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

A) Brazing **B) Soft soldering**
C) Hot soldering D) Hard soldering (Incorrect)

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

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

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

A) Soldering iron B) Soldering wick (Incorrect)
C) Desoldering braid **D) Desoldering pump**

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

A) Germanium material used **B) Silicon material used**
C) Antimony material used D) Indium material used (Incorrect)

39. Which soldering instrument has hot air blowing facility?

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

49. What is the formula used to calculate the current gain (alpha) of common base amplifier?

A) IC/ IE (Correct) B) IE/ IC
C) IB/ IE D) IE/ IC

40. What is produced by the power supply connected soldering iron?

A) Fire **B) Heat**
C) Cool air (Incorrect) D) Water vapour

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

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

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

A) Water B) Petrol
C) Organic flux (Incorrect) **D) Isopropyl alcohol**

51. How the negative feedback is called?

A) Regenerative feedback **B) Degenerative feedback**
C) Current controlled D) Voltage controlled feedback (Incorrect)

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

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

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

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

43. 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 (Incorrect)
C) Pits and voids D) Dull gravity surface

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

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

44. 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)**

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

A) NPN has lower switching speed (Incorrect) B) NPN has good bias stability

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

C) NPN has higher switching speed

D) Low operating voltage

55. Which type of transistors are required to amplify signals from the microphone /transducer?

A) Low power transistors
C) High power transistors
(Incorrect)

B) Medium power transistors
D) Epitaxial versa watt transistors

56. 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)

57. Which type of packaging is used to transistors utilized for medium power amplification?

A) Plastic packaging with metal heatsinks

C) Plastic packaging

B) Ceramic packaging
D) Metal packaging
(Incorrect)

58. Which type of amplifier is used to operate the loud speaker?

A) IF amplifier (Incorrect)

C) Power amplifier

B) RF amplifier

D) Voltage amplifier

59. Which parameter of passive component can be calculated using the formula ?

A) Capacitance

C) Capacitive reactance

B) Inductance

D) Inductive reactance
(Incorrect)

60. Which type of amplifier is used to operate the loud speaker?

A) IF Amplifier

C) Power Amplifier

B) RF Amplifier

D) Voltage Amplifier
(Incorrect)

61. How can you confirm a transistor as defective?

A) By circuit testing

C) By physical testing

B) By ohm meter testing

D) By voltage measurements
(Incorrect)