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Question Paper

Student: Prajwal Devidas Ager
Score: 9/32 (28.13%)

Code: 6791

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

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

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

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

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

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

4. 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

5. 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

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

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

7. What is the maximum emitter to base voltage VEB (max) for the transistor BC 147?

A) 4V
B) 5V
C) 6V (Correct)
D) 8V

8. How the negative feedback is called?

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

9. How the maximum permissible voltage that can be applied across the collector ? Emitter junction of a transistor is indicated?

A) VCE (max) in volts (Correct)
B) VBE (max) in volts
C) VCB (max) in volts
D) VCC in volts

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

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

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

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

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

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

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

A) Low power transistors
B) Medium power transistors
C) High power transistors (Incorrect)
D) Epitaxial versa watt transistors

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

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

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

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

16. Which type of amplifier in used to operate the loud speaker?

A) IF amplifier
B) RF amplifier
C) Power amplifier (Correct)
D) Voltage amplifier

17. What is the voltage gain in a transistor if the input voltage in 40mv and the output voltage in 3.6V?

A) 45
B) 90
C) 180 (Incorrect)
D) 270

18. What is the input impedence of darlington pair transistors?

A) Very low input impedance
B) Very high input impedance
C) Medium input impedance (Incorrect)
D) Uniter

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

A) Provides positive feed back (Incorrect)
B) Never reach saturation
C) Easily sets saturated
D) Gives maximum distortion

20. Which class of amplifier uses fixed bias because of its imperent advantage of transistor will never go to saturation?

A) Class - A
B) Class - B
C) Class - AB
D) Class - C (Incorrect)

21. How does the values of bias resistors selected for collector current in class -B amplifiers?

A) Q point set slightly below cut-off
B) Quiescent current at mid point (Incorrect)
C) Quiescent current beyond the cut-off point
D) Quiescent current over the cut-off value

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

A) Capacitance
B) Inductance
C) Capacitive reactance (Correct)
D) Inductive reactance

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

A) IF Amplifier
B) RF Amplifier (Incorrect)
C) Power Amplifier
D) Voltage Amplifier

24. What is the advantage of silicon over germanium for transistor fabrication?

A) Lower thermal stability
B) Higher thermal stability
C) Lower operating voltage (Incorrect)
D) Higher amplification factor

25. What is the effeciency transformer coupled class A amplifier?

A) Less than 20%
B) About 50% (Correct)
C) More than 60%
D) Unity

26. What is the purpose of using positive feed back in amplifiers?

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

27. What will happen when the forward bias voltage across the PN junction is increased excessively?

A) Increases the cut - in - voltage (Incorrect)
B) Barrier width of junction increases
C) Junction ruptured and short circuited
D) No current flows through the junction

28. What is the overall base emitter voltage required to turn the darlington pair?

A) 0.2 V (Incorrect)
B) 0.3 V
C) 0.7 V
D) 1.4 V

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

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

30. How can you confirm a transistor as defective?

A) By circuit testing
B) By ohm meter testing
C) By physical testing (Incorrect)
D) By voltage measurements

31. Where does the depletion region exists in a bipolar transistor?

A) Between emitter - base electrodes
B) Between collector - base electrodes (Incorrect)
C) Between collector and emitter electrodes
D) Between E-B and B-C electrodes

32. In which quantity affects the Q point of a transistor amplifier?

A) Decreased temperature
B) Increased temperature (Correct)
C) Proper biasing methods
D) Mismatching signals