

ITI Quiz - 10-Feb-2026

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Q. ID: ITISKILL28200K

February 2026

Answer Key

Duration: 30 Mins

Total Marks: 32

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

- A) Germanium material used B) Indium material used
C) Silicon material used D) Antimony material used

Answer: C) Silicon material used

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

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

Answer: A) Never reach saturation

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

- A) RF amplifier B) Power amplifier
C) IF amplifier D) Voltage amplifier

Answer: B) Power amplifier

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

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

Answer: D) Increased temperature

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

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

Answer: C) Plastic packaging

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

- A) Capacitance B) Capacitive reactance
C) Inductive reactance D) Inductance

Answer: B) Capacitive reactance

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

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

Answer: A) Less than 1

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

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

Answer: B) Higher thermal stability

9. What is the maximum emitter to base voltage V_{EB} (max) for the transistor BC 147?

- A) 8V B) 6V
C) 5V D) 4V

Answer: B) 6V

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

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

Answer: C) To eliminate the transformer

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

- A) 0.3 V B) 0.7 V
C) 1.4 V D) 0.2 V

Answer: C) 1.4 V

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

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

Answer: D) Common emitter configuration

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

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

Answer: B) Higher thermal stability

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

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

Answer: D) Quiescent current over the cut-off value

15. How can you confirm a transistor as defective?

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

Answer: B) By ohm meter testing

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

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

Answer: A) Plastic packaging with metal heatsinks

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

- A) IF Amplifier
- B) RF Amplifier
- C) Power Amplifier
- D) Voltage Amplifier

Answer: C) Power Amplifier

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

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

Answer: D) VCE (max) in volts

19. How the negative feedback is called?

- A) Current controlled feedback
- B) Regenerative feedback
- C) Degenerative feedback
- D) Voltage controlled feedback

Answer: C) Degenerative feedback

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

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

Answer: D) To produce oscillation

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

- A) Low
- B) Very high
- C) High
- D) Medium

Answer: B) Very high

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

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

Answer: A) Cascaded amplifier

23. Which class of amplifier uses fixed bias because of its

imperment advantage of transistor will never go to saturation?

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

Answer: D) Class - A

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

- A) I_E / I_C
- B) I_E / I_C
- C) I_C / I_E
- D) I_B / I_E

Answer: C) I_C / I_E

25. 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

Answer: C) JEDEC standard

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

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

Answer: A) Between E-B and B-C electrodes

27. What is the input impedance of darlington pair transistors?

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

Answer: B) Very high input impedance

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

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

Answer: D) Low power transistors

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

- A) 45
- B) 270
- C) 90
- D) 180

Answer: C) 90

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

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

Answer: B) NPN has higher switching speed

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

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

Answer: B) Junction ruptured and short circuited

32. What is the efficiency transformer coupled class A amplifier?

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

Answer: A) About 50%