ITI Quiz - 26-Mar-2026 11:24 AM

Q. ID: ITISKILL9897HH

March 2026 **GITIANKOLA** Answer Key

Duration: 30 Mins **Total Marks: 25** **Q.ID: ITISKILL9897HH**

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

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

Answer: A) 1.4 V

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

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

Answer: B) 90

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

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

Answer: B) Less than 1

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

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

Answer: D) Capacitive reactance

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

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

Answer: B) Cascaded amplifier

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

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

Answer: D) Plastic packaging

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

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

Answer: A) Power amplifier

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

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

Answer: B) Common emitter configuration

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

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

Answer: A) IC/ IE

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

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

Answer: D) Never reach saturation

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

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

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

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

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

Answer: A) NPN has higher switching speed

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

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

Answer: B) Silicon material used

14. 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) VCE (max) in volts
D) VBE (max) in volts

Answer: C) VCE (max) in volts

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

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

Answer: C) Plastic packaging with metal heatsinks

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

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

Answer: D) 6V

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

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

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

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

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

Answer: B) Class - A

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

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

Answer: C) Low power transistors

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

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

Answer: B) Increased temperature

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

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

Answer: B) Very high

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

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

Answer: D) Junction ruptured and short circuited

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

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

Answer: C) Very high input impedance

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

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

Answer: C) Higher thermal stability

25. How can you confirm a transistor as defective?

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

Answer: B) By ohm meter testing