

# ITI Quiz - 25-Mar-2026

## 10:37 PM

Q. ID: ITISKILL8440WN

February 2026

Question Paper

Duration: 30 Mins

Total Marks: 32

ID: ITISKILL8440WN

Student Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

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

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

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

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

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

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

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

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

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

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

6. Where does the depletion region exist in a bipolar transistor?

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

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

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

8. Which coding system for transistor type numbering system

is followed by American standard?

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

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

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

10. 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 good bias stability
- D) NPN has lower switching speed

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

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

12. How the maximum permissible voltage that can be applied across the collector - emitter junction of a transistor is indicated?

- A)  $V_{CE}$  (max) in volts
- B)  $V_{CC}$  in volts
- C)  $V_{CB}$  (max) in volts
- D)  $V_{BE}$  (max) in volts

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

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

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

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

15. What is the purpose of using positive feedback in amplifiers?

- A) To produce demodulation
- B) To produce oscillation

C) To produce modulation    D) To produce multiplexion

**16.** Which class of amplifier uses fixed bias because of its inherent advantage of transistor will never go to saturation?

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

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

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

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

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

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

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

**20.** How the negative feedback is called?

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

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

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

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

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

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

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

**24.** What is the input impedance of darlington pair transistors?

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

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

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

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

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

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

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

**28.** 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

**29.** What is the current gain of common collector amplifier?

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

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

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

**31.** What is the name of multi-stage amplifiers?

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

**32.** 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) 180                                      D) 45