

# Monthly Test of February-2026

Q. ID: ITISKILL6937ZA

February 2026

GOVT ITI TAGADURU

Question Paper

Duration: 30 Mins

Total Marks: 20

ID: ITISKILL6937ZA

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

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

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

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

2. What is the efficiency of a transformer-coupled class A amplifier?

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

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

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

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

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

5. What is the input impedance of a Darlington pair transistor?

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

6. Which type of amplifier is used to operate a loud speaker?

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

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

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

8. What is the formula used to calculate the current gain ( $\alpha$ ) of a common base amplifier?

9. Why is a complementary-symmetry amplifier preferred over other types of amplifier configurations?

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

10. What is the overall base-emitter voltage required to turn on a Darlington pair?

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

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

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

12. Why is silicon preferred over germanium semiconductor material for transistors?

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

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

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

14. How can you confirm a transistor is defective?

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

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

- A)  $V_{BE}$  (max) in volts
- B)  $V_{CE}$  (max) in volts

C) VCE (max) in volts

D) VCC in volts

C) Home codes

D) JIS standard

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

A) Complementary symmetry amplifier

B) Cascaded amplifier

C) Darlington pair amplifier

D) Cascoded amplifier

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

A) Low

B) Very high

C) Medium

D) High

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

A) JEDEC standard

B) PRO-ELECTRON standard

19. 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 over the cut-off value

D) Quiescent current beyond the cut-off point

20. How the negative feedback is called?

A) Degenerative feedback

B) Voltage controlled feedback

C) Current controlled feedback

D) Regenerative feedback