

Student: Ankur Prashant Nayak

Score: 21/26 (80.77%)

Code: 3489

1. What is the minimum forward current I_f for single colour LEDs?

- A) 5 MA (Incorrect) B) 10 MA
C) **20 MA** D) 30 MA

2. What is the forward voltage drop of single colour Red LED?

- A) **1.8 V (Correct)** B) 2 V
C) 2.1 V D) 2.2 V

3. What is the typical forward voltage drop of the RED colour LED?

- A) **1.8 V (Correct)** B) 2 V
C) 2.1 V D) 2.2 V

4. What is the maximum reverse voltage that can be applied across the general purpose LED?

- A) **8 V (Correct)** B) 12 V
C) 15 V D) 32 V

5. What is the typical forward voltage drop of the yellow colour LED?

- A) 2.2 V B) **2.1 V (Correct)**
C) 2 V D) 1.8 V

6. Which material is used to make LDR for higher end requirements?

- A) Cadmium sulfide B) **Lead selenide (Correct)**
C) Zinc sulfide D) Copper sulfide

7. What is the range of photo current for photo transistor BPX 38?

- A) 0.1MA to 1.2MA B) **0.2MA to 1.6MA (Correct)**
C) 0.3MA to 2.7MA D) 0.4MA to 3.8MA

8. What is the type of transistor BPX81?

- A) Uni - Junction transistor B) **NPN - Photo transistor (Correct)**
C) PNP - Photo transistor D) Audio frequency transistor

9. What is the function of opto-coupler in the switching operation of digital input signal?

A) Amplifier the signal

B) Converts voltage into current

C) Produces electrical noise signal (Incorrect)

D) **Defects the operation of switching signal**

10. What is the forward voltage for the single colour orange LEDs?

- A) 0.5 V B) 0.8 V
C) **2 V (Correct)** D) 2.5 V

11. Which material is used to make LDR for lower end requirements?

- A) Aluminium sulfide B) **Cadmium sulfide (Correct)**
C) Zinc sulfide D) Copper sulfide

12. Which circuit photo SCR opto couplers are used?

- A) DC circuits B) **AC powered circuits (Correct)**
C) Amplifier circuits D) Counter circuits

13. Which circuit uses photo-darlington devices?

- A) **DC circuits (Correct)** B) Counter circuits
C) Amplifier circuits D) AC powered circuits

14. What is the advantage of PIN photo diodes?

- A) Low sensitivity in the infrared range B) **High sensitivity in the infrared range (Correct)**
C) Medium sensitivity in the infrared range D) Low sensitivity in the Ultraviolet range

15. Which of the device is opto-coupled TRIACS?

- A) BT136 B) **B3202**
C) 2N2648 D) MOC3020 (Incorrect)

16. Which is the combination of photo transistor?

- A) LASER diode and pin diode B) Photo transistor and DIAC
C) **Photo diode and transistor (Correct)** D) Photo resistor and TRIAC

17. What is the advantage of photo transistors over photo diodes?

- A) Considerably lower sensitivity B) Limit voltage handling capacity

C) Considerable greater sensitivity (Correct)

D) Vulnerable to electrical sources

18. What is the use of photo transistor?

A) Used in comparator circuit

B) Used as light controlled switch (Correct)

C) Used as oscillator

D) Used as demodulator

19. What is the drawbacks of LDR?

A) More sensitive

B) Available different sizes and specifications

C) Cannot be used to determine precise light levels (Correct)

D) Made of low resistance material with few holes

20. Which material is used to make photo resistors (LDR)?

A) Silicon

B) Germanium

C) Aluminium

D) Cadmium sulfide (Correct)

21. What is the main application of photo resistor?

A) Voltage rectification

B) Demodulation purpose

C) Controls of street lighting systems (Correct)

D) To generate oscillations

22. Which purpose the cadmium sulfide cells (CDS cells) are used?

A) Primary cells

B) Rechargeable cells

C) Light dependent resistor D) Voltage dependent resistor (Incorrect)

23. How the light sensitive photo transistor enclosed inside a tight package is activated?

A) By the bias voltage to the photo transistor

B) By the external signal to the transistor

C) By IR light produced inside the package (Correct)

D) By the light sensitive receiver inside

24. Which measuring instrument is used to check the working condition of a photo resistor (LDR)?

A) Oscilloscope

B) Voltmeter

C) Ohmmeter

D) Ammeter (Incorrect)

25. Which electronic device inversely changes its resistance with the amount of light falling on it?

A) Photo diodes

B) Photo resistors (Correct)

C) Photo transistors

D) Photo voltaic cells

26. What will happen if the photo resistor (LDR) is exposed to low level light condition?

A) Resistance will decrease to 10 Ohm

B) Resistance will decrease to 100 Ohm

C) Resistance will increase to 1 Kilo Ohm

D) Resistance will increase to around 1 Mega Ohm (Correct)