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Question Paper

Duration: 30 Mins

Total Marks: 25

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Student Name: _____ Roll No: _____

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

- A) 1.8 V B) 2.1 V
C) 2.2 V D) 2 V

2. What is the drawbacks of LDR?

- A) Cannot be used to determine precise light levels
C) More sensitive
B) Made of low resistance material with few holes
D) Available different sizes and specifications

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

- A) Converts voltage into current
C) Defects the operation of switching signal
B) Produces electrical noise signal
D) Amplifier the signal

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

- A) Aluminium sulfide B) Cadmium sulfide
C) Zinc sulfide D) Copper sulfide

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

- A) By the bias voltage to the photo transistor
C) By the light sensitive receiver inside
B) By IR light produced inside the package
D) By the external signal to the transistor

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

- A) 10 MA B) 5 MA
C) 20 MA D) 30 MA

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

- A) Ammeter B) Oscilloscope
C) Voltmeter D) Ohmmeter

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

- A) 2 V B) 2.1 V
C) 1.8 V D) 2.2 V

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

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

10. Which circuit uses photo-darlington devices?

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

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

- A) 2 V B) 0.8 V
C) 2.5 V D) 0.5 V

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

- A) Photo diodes B) Photo voltaic cells
C) Photo resistors D) Photo transistors

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

- A) BT136 B) MOC3020
C) B3202 D) 2N2648

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

- A) Aluminium B) Silicon
C) Germanium D) Cadmium sulfide

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

- A) 2.2 V B) 2 V
C) 1.8 V D) 2.1 V

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

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

17. Which circuit photo SCR opto couplers are used?

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

18. What is the use of photo transistor?

- A) Used as light controlled switch
- B) Used in comparator circuit
- C) Used as demodulator
- D) Used as oscillator

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

- A) Limit voltage handling capacity
- B) Considerably lower sensitivity
- C) Considerable greater sensitivity
- D) Vulnerable to electrical sources

20. What is the main application of photo resistor?

- A) Controls of street lighting systems
- B) Voltage rectification
- C) To generate oscillations
- D) Demodulation purpose

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

- A) 8 V
- B) 12 V

C) 15 V

D) 32 V

22. What is the advantage of PIN photo diodes?

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

23. Which is the combination of photo transistor?

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

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

- A) Voltage dependent resistor
- B) Light dependent resistor
- C) Rechargeable cells
- D) Primary cells

25. What is the type of transistor BPX81?

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