

Duration: 30 Mins

Total Marks: 26

ID: ITISKILL5820JG

Student Name: _____

Roll No: _____

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

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

2. 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) Defects the operation of switching signal D) Produces electrical noise signal

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

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

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

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

5. What is the advantage of PIN photo diodes?

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

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

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

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

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

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

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

9. What is the maximum reverse voltage that can be applied

across the general purpose LED?

- A) 15 V B) 8 V
C) 32 V D) 12 V

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

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

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

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

12. What is the use of photo transistor?

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

13. What is the type of transistor BPX81?

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

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

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

15. Which circuit photo SCR opto couplers are used?

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

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

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

17. Which is the combination of photo transistor?

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|-------------------------------|------------------------------|---|-------------------|
| A) Photo transistor and DIAC | B) LASER diode and pin diode | C) Made of low resistance material with few holes | D) More sensitive |
| C) Photo diode and transistor | D) Photo resistor and TRIAC | | |
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18. Which material is used to make photo resistors (LDR)?

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|--------------------|--------------|
| A) Cadmium sulfide | B) Silicon |
| C) Aluminium | D) Germanium |
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19. Which circuit uses photo-darlington devices?

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|------------------------|-----------------------|
| A) DC circuits | B) Amplifier circuits |
| C) AC powered circuits | D) Counter circuits |
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20. What is the main application of photo resistor?

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| A) Voltage rectification | B) Demodulation purpose |
| C) To generate oscillations | D) Controls of street lighting systems |
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21. What is the forward voltage for the single colour orange LEDs?

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| A) 0.5 V | B) 0.8 V |
| C) 2.5 V | D) 2 V |
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22. What is the drawbacks of LDR?

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| A) Available different sizes and specifications | B) Cannot be used to determine precise light levels |
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23. Which measuring instrument is used to check the working condition of a photo resistor (LDR)?

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| A) Oscilloscope | B) Ohmmeter |
| C) Voltmeter | D) Ammeter |
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24. What will happen if the photo resistor (LDR) is exposed to low level light condition?

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| A) Resistance will decrease to 10 Ohm | B) Resistance will decrease to 100 Ohm |
| C) Resistance will increase to around 1 Mega Ohm | D) Resistance will increase to 1 Kilo Ohm |
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25. Which purpose the cadmium sulfide cells (CDS cells) are used?

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| A) Primary cells | B) Rechargeable cells |
| C) Voltage dependent resistor | D) Light dependent resistor |
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26. How the light sensitive photo transistor enclosed inside a tight package is activated?

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