EM

Q. ID: ITISKILL5820JG

June 2026 | **GITIANKOLA** | Answer Key

Duration: 30 Mins | **Total Marks: 26** | **Q.ID: ITISKILL5820JG**

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

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

Answer: A) Cadmium sulfide

2. Which circuit photo SCR opto couplers are used?

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

Answer: B) AC powered circuits

3. What is the advantage of PIN photo diodes?

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

Answer: A) High sensitivity in the infrared range

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

A) Resistance will decrease to 100 Ohm
B) Resistance will increase to 1 Kilo Ohm
C) Resistance will decrease to 10 Ohm
D) Resistance will increase to around 1 Mega Ohm

Answer: D) Resistance will increase to around 1 Mega Ohm

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

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

Answer: A) Lead selenide

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

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

Answer: C) 8 V

7. What is the main application of photo resistor?

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

Answer: D) Controls of street lighting systems

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

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

Answer: A) 1.8 V

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

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

Answer: B) Photo resistors

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

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

Answer: C) 2.1 V

11. Which is the combination of photo transistor?

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

Answer: C) Photo diode and transistor

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

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

Answer: D) B3202

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

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

Answer: B) Cadmium sulfide

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

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

Answer: A) By IR light produced inside the package

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

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

Answer: C) Ohmmeter

16. What is the minimum forward current If for single colour LEDs?

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

Answer: B) 20 MA

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

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

Answer: C) Considerable greater sensitivity

18. What is the use of photo transistor?

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

Answer: B) Used as light controlled switch

19. What is the type of transistor BPX81?

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

Answer: A) NPN - Photo transistor

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

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

Answer: B) 1.8 V

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

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

Answer: D) Defects the operation of switching signal

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

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

Answer: B) Light dependent resistor

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

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

Answer: C) 2 V

24. Which circuit uses photo-darlington devices?

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

Answer: D) DC circuits

25. What is the drawbacks of LDR?

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

Answer: C) Cannot be used to determine precise light levels

26. 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) 0.2MA to 1.6MA
D) 0.3MA to 2.7MA

Answer: C) 0.2MA to 1.6MA