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Application of Electronics

Paper : IV

Maximum Marks :60

1. Answer **All** the questions from Part A.
2. Any **Ten** questions from Part B.
3. Any **Four** questions from Part - C

Answer **All** the questions.

(20×1=20)

1. i) Which of the following components is used to store the electric energy.

a) Transistor	b) Capacitor
c) Resistor	d) Diode.
- ii) What is the value of resistor with colour code Red, Red, Red and Gold?

a) 100 Ω	b) 2.2 K Ω
c) 10 K Ω	d) 22 K Ω
- iii) Which combination of Capacitors increases capacitance value?

a) Series	b) Parallel
c) Series & Parallel	d) None
- iv) _____ is used convert alternating current (AC) to direct current (DC)?

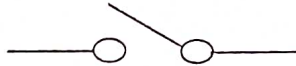
a) Resistor	b) Amplifier
c) Transformer	d) Rectifier
- v) Which component has ability to increase the strength of electric signal?

a) Resistor	b) Capacitor
c) Transistor	d) Inductor

[P.T.O.]



- vi) The transformer works on _____ principle.
- a) Self Inductance b) Mutual inductance
c) Ohms law d) Recti
- vii) A transformer used to transform higher voltage to lower voltage is called
- a) Step down transformer b) Step up transformer
c) Auto transformer d) None of the above
- viii) Fuse is a ?
- a) Safety device b) Switch
c) Rectifier d) None
- ix) Name the type of switch



- a) SPST b) SPDT
c) DPST d) DPDT
- x) Electrical relay is a
- a) Electrically controllable switch
b) Electro - mechanical switch
c) Electro -magnetic switch
d) All of the above
- xi) DMM stands for
- a) Digital Multi Meter b) Dignity Meter
c) Diode Media Meter d) None of the above
- xii) Which of the electrical component is more powerful?
- a) AC b) DC
c) IF d) RF
- xiii) LCD stands for
- a) Liquid Crystal Diode b) Liquid Crystal Display
c) Light Carry Diode d) None



5. Name the types of transistors and write their symbols.
6. Draw the forward and reverse bias circuits of a Diode.
7. Name any two electric measuring devices.
8. Write the block diagram of Glucometer.
9. Give any two applications of Bar Code system.
10. What is pH meter? Mention an application of it.
11. What is EMG? and Why it is used?
12. Name any two optical code readers.
13. What is Scanner? Mention an application of it.
14. Write the circuit diagram of a Half Wave Rectifier.
15. Write the block diagram of a UPS system.
16. What are the different types of calculators?

PART - C

Answer any Four questions.

(4×5=20)

17. Explain the construction and working of Transformer.
 18. Write a note on colour coding of a Resistors.
 19. Write a note on working of electromagnetic Relay.
 20. Draw the block diagram of ECG and explain working.
 21. Draw the block diagram of Regulated Power Supply and explain working.
 22. Draw the block diagram of a calculator and explain its working.
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