

Katwa College

B.Sc. Semester – IV (Honours) Internal Examination – 2022

Subject – Physics

Paper SEC – 2- Electrical Circuits and Network Skills

Time – 1 h

Full Marks: 10

Answer any five questions:

2x5=10

1. What do you mean by active and passive circuit elements? Explain with examples.
2. State Kirchhoff's law and explain with simple circuit diagrams.
3. State Thevenin and Norton theorem.
4. Show that the equivalent resistance of parallel combination is less than the smallest of the combination.
5. How do you save energy and money?
6. Draw the following Circuit symbols. a) Controlled voltage source b) controlled current source. c) LDR and d) SPDT toggle switch.
7. What do you mean by blueprint and reading schematics?
8. What do you mean by step up and step down transformers? Explain with simple diagrams.

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