



SVSU

SHRI VISHWAKARMA SKILL UNIVERSITY

(A State Skill University, setup by an Act of Legislature in 2016)

187029

Course : B.Voc. Tool and Die Manufacturing
Subject : Basics of Electrical and Electronics Engineering
Subject Code : ZBEE-104
Semester : First
Duration : 3 Hours
Maximum Marks : 35

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. **Section A** comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 1 mark.
3. **Section B** comprises 8 essay type questions out of which students need to do any 5. Each question carries 5 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled.

Roll Number

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SECTION -A (OBJECTIVE TYPE QUESTIONS)

(10x1=10 Marks)

- Q1. What is the rule followed for kirchoffs voltage law?
- (a) mesh rule
 - (b) current rule
 - (c) loop rule
 - (d) wheat stone rule
- Q2. In a parallel circuit, the total resistance of circuit _____ as the number of resistors connected in parallel _____
- (a) increases, increases
 - (b) increases, decreases
 - (c) decreases, decreases
 - (d) decreases, increases
- Q3. The rating of fuse wire is expressed in terms of
- (a) Ohms
 - (b) Mhos
 - (c) Amperes
 - (d) Watts.
- Q4. An ideal voltage source should have:
- (a) Zero source resistance
 - (b) Infinite source resistance
 - (c) Terminal voltage is proportional to current
 - (d) Open-circuit voltage nearly equal to voltage of the load current
- Q5. KCL is applicable at
- (a) A Junction
 - (b) Resistor
 - (c) Loop
 - (d) All of these
- Q6. The property of a conductor due to which it passes current is called
- (a) resistance
 - (b) reluctance
 - (c) conductance
 - (d) inductance
- Q7. Motor is a machine which converts
- (a) Mechanical Energy into Electrical Energy
 - (b) Electrical Energy into Mechanical Energy
 - (c) Both A&B
 - (d) None of these

Q8. Copper Losses are

(a) I^2R Losses (b) Constant Losses (c) Both A&B (d) None of these

Q9. The breakdown mechanism in a lightly doped p-n junction under reverse biased condition is called

- (a) avalanche breakdown.
- (b) zener breakdown.
- (c) breakdown by tunnelling.
- (d) high voltage breakdown

Q10. The charge on the plates of a capacitor is given by the expression ?

- (a) $Q = VI$
- (b) $Q = IR$
- (c) $Q = CV$
- (d) $Q = IC$

SECTION -B (ESSAY TYPE QUESTIONS)

(5x5=25 Marks)

Q11. What do you mean by Kirchhoff's law. Explain Series and parallel circuits in details.

Q12. Convert a delta connected set of unequal resistors into star.

Q13. Describe working principle of Transformer in brief.

Q14. Explain the construction and working of DC motor with neat sketches.

Q15. Explain the difference between single phase and three phase in details.

Q16. Explain the concept of neutral and earthing in protective devices.

Q17. Describe Zener Diode and its applications.

Q18. What do you mean by Fuse? Explain the difference between fuse and relay.

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