

COMPUTER SCIENCE  
SECOND SEMESTER  
COMPUTER HARDWARE AND ASSEMBLING  
SVS-210

**SET  
B**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

**(Objective)**

Marks: 10

Choose the correct answer from the following:

$1 \times 10 = 10$

- How to erase data in EPROM?
  - Using electrical signal
  - Using ultraviolet rays
  - Both
  - None
- Voltage division rule is applicable to:
  - Series Circuit
  - Parallel Circuit
  - Both a & b
  - All the above
- Hybrid computer uses:
  - Digital signal
  - Analog signal
  - Both a & b
  - None
- The full form of SMPS is:
  - Switched-mode power supply
  - Switched-modification power supply
  - Switched-mode power supply
  - All of these
- Which of the following communication mode is unidirectional?
  - Half-duplex
  - Full-duplex
  - Simplex
  - All of these
- Which of the following is a volatile memory?
  - RAM
  - ROM
  - Both
  - None
- CPU consists of:
  - ALU & Memory
  - ALU & Control Unit
  - Control Unit & Memory
  - All of these
- Vacuum tube was used in:
  - 3<sup>rd</sup> generation of computer
  - 2<sup>nd</sup> generation of computer
  - 1<sup>st</sup> generation of computer
  - 5<sup>th</sup> generation of computer
- The device that converts AC to DC is called:
  - Inverter
  - Transistor
  - Rectifier
  - Diode

10. In which topology, each device has a dedicated point to point connection to a hub?
- a. BUS
  - b. MESH
  - c. RING
  - d. STAR

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**( Descriptive )**

Time : 1 hr. 15 mins.

Marks : 25

[ Answer question no.1 & any two (2) from the rest ]

1. Explain with the help of diagram the architecture of computer. 5
2. a) Two resistors of values  $2\Omega$  and  $8\Omega$  are connected in series across a series opposing voltage sources of values 12 V and 6 V. Compute:  
(a) Circuit current (b) Power supplied by the two batteries  
(c) Power dissipated in the two resistors. 6+4=10  
b) Differentiate between Half-duplex and Full-duplex mode.
3. Define Computer. What are the various types of computer? Explain briefly. 10
4. What do you mean by Network? What are the various physical topology in a network? Discuss briefly. 10
5. Write short notes on the following: 5+5=10
  - a) Half-Wave rectifier
  - b) SMPS

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