

[108]

SARDAR PATEL UNIVERSITY
PGDCAA (SEM-I) (CBCS) EXAMINATION 2018
Wednesday, 11th April
2:00 P.M To 5:00 P.M
PS01CDCT02: Logical computer Organization

Total Marks: 70

Q-1 Choose the most appropriate option for each question.**[8]**

1. Which parts of the computer perform arithmetic calculations?
A. ALU
B. Registers
C. Logic bus
D. Input device
2. The brain of any computer system is _____
A. Control Unit
B. Arithmetic Logic Unit
C. Central Processing Unit
D. Storage Unit
3. The number of digits in octal system is _____
A. 8
B. 7
C. 10
D. 2
4. The number of digits in Hexadecimal system is _____
A. 15
B. 17
C. 16
D. 8
5. The _____ gate has two or more input signals. All inputs must be high to get a high output.
A. AND
B. OR
C. NAND
D. NOR
6. An invert gate is also called a _____ gate.
A. NOR
B. NOT
C. XNOR
D. NAND
7. A _____ is a combinational circuit that converts binary information from the 2^n coded inputs to outputs.
A. Half Adder
B. Decoder
C. Encoder
D. Comparator
8. A combinational circuit that performs the arithmetic addition of two bits is called _____.
A. Full Adder
B. Half Adder
C. Binary Adder
D. Decoder

Q-2 Answer the following questions (Any Seven).**[14]**

1. Define : Hardware with example
2. List applications of computer
3. Define : Software with examples
4. What is number system? List all number systems
5. Explain binary number system
6. Describe the AND, NOR gate.
7. Explain NAND, OR gate.
8. Describe multiplexer in short
9. Define encoder in short.

[P.T.O]

- Q-3[A] Define Characteristics of First Generation. [06]
[B] Explain Block diagram of Computer. [06]
- OR
- [B] Explain Basic Gates in Detail. [06]
Q-4[A] Explain Binary Number System. [06]
[B] Explain Octal Number System. [06]
- OR
- [B] Explain decimal number system with example. [06]
- Q-5[A] Write a short note on OR Gate in Detail. [06]
[B] Write a note on AND Gate in Detail. [06]
- OR
- [B] Explain NAND gate in Detail. [06]
Q-6[A] Write a short note on Half Adder in Detail. [06]
[B] Explain Decoder in Detail. [06]
- OR,
- [B] Write a short note on Encoder in Detail. [06]