

[47]

SEAL

No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY
B.C.A. - SEMESTER - I EXAMINATION
US01BCA25 - FUNDAMENTAL OF COMPUTER ORGANIZATION

Date : 24-10-2018
Wednesday

Time : 10:00 a.m. to 1:00 p.m.

Marks : 70

Q-1 Select an appropriate option for following questions. [10]

- 1) Which parts of the computer perform arithmetic calculations?
 - A. ALU
 - B. Registers
 - C. Logic bus
 - D. Input device
- 2) Which statement is valid?
 - A. 1KB = 1024 bytes
 - B. 1 MB = 2048 bytes
 - C. 1 MB = 1000 kilobytes
 - D. 1 KB = 1000 bytes
- 3) The representation of - 18 using 1's complement is _____.
 - A. 11101101
 - B. 11001101
 - C. 10001010
 - D. 10110011
- 4) ASCII equivalent of B is _____.
 - A. 66
 - B. 67
 - C. 68
 - D. 65
- 5) If A=01000001 then odd parity for this string is _____.
 - A. 11000001
 - B. 01000001
 - C. 10000001
 - D. 01001000
- 6) Multiprocessor is referred as _____.
 - A. SISD
 - B. SIMD
 - C. MISD
 - D. MIMD
- 7) Cache memory is being deployed for _____.
 - A. Speed up rate of data fetching
 - B. reduce rate of data fetching
 - C. to reduce the error
 - D. none of them
- 8) What is the full form of USB _____.
 - A. Universal Serial Bus
 - B. Universal system Bus
 - C. uniform system bus
 - D. none of them
- 9) If there is a mechanical contact between the print head and paper then this kind of printer is known as _____.
 - A. Impact printer
 - B. non-impact printer
 - C. normal printer
 - D. none of these
- 10) Which one is a pointing device _____.
 - A. scanner
 - B. keyboard
 - C. Mouse
 - D. none of these

Q-2 Answer following Questions : (Any ten) [20]

- 1) Define Hardware and Software..
- 2) Explain characteristics of fourth generation of computer.
- 3) Explain Odd and even parity using appropriate example.
- 4) Fill in the blank
 - i) $(127)_{10} = (\text{_____})_2$
 - ii) $(AB3)_{16} = (\text{_____})_{10}$
- 5) Write a brief note on Data path cycle.

(P.T.O.)

- 6) What will be the result for following,
 - i) $(1101101)_2 + (1101)_2$
 - ii) $(110111)_2 - (1101)_2$ using 1's complement method
- 7) List stages of pipelining.
- 8) State significance of Program Control Register and Instruction Register.
- 9) Define Index and stack addressing.
- 10) List various input output devices (at least four).
- 11) State difference between RAM and ROM.
- 12) Explain importance of memory Buffer Register (MBR).

- Q-3 A) Draw the block diagram of computer and explain its functions. [5]
 B) What is number system? Convert Decimal number (2345) into Binary, Octal and Hexadecimal Number system. [5]

OR

- Q-3 A) List applications of Computers. Compare various generations of Computers. [5]
 B) What is base value of Binary number system? Convert $(234.12)_8$ into Binary, Decimal and Hexadecimal Number system. [5]

- Q-4 A) Write a note on Excess notation. [5]
 B) Write a note on Von Neumann Machine. Explain Instruction Execution cycle. [5]

OR

- Q-4 A) Explain Error correction code with appropriate example. [5]
 B) Write a note on Character Codes. [5]

- Q-5 A) Write a note on Primary memory. [5]
 B) Write a note on Array Processors. [5]

OR

- Q-5 A) Write a note on Multiprocessors. [5]
 B) Write note on Secondary storage devices. [5]

- Q 6 A) What is addressing? Explain various addressing techniques in detail. [10]

OR

- Q 6 A) Write a detailed note on various types of Printers. [10]

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(2)