



DBY-003-2042003

Seat No. _____

B. Sc. I.T. (Sem. II) (CBCS) (W.E.F. 2019) Examination

July - 2022

Computer Organization & Architecture

Faculty Code : 003

Subject Code : 2042003

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 (a) Attempt the following : 4
- (1) Flip Flop can store ____ Bit.
 - (2) Half Adder Add ____ Bits.
 - (3) What is Truth Table ?
 - (4) Give the name of Exclusive Gate.
- (b) Answer in brief : (Any One) 2
- (1) What is digital Computer ?
 - (2) Explain Not Gate.
- (c) Answer in detail : (Any One) 3
- (1) Explain Universal Gate.
 - (2) Explain K'Map.
- (d) Write a note on Any One : 5
- (1) Explain Flip Flop in detail.
 - (2) Explain Universal Gate.
- 2 (a) Attempt the following : 4
- (1) Give the full form of I.C.
 - (2) Give the full form of SSI.
 - (3) Give the Full form of MSI.
 - (4) Register is group of ____.

- (b) Answer in brief : (Any One) **02**
 (1) Explain SSI.
 (2) Explain LSI.
- (c) Answer in detail : (Any One) **3**
 (1) Explain 2*4 Decoder.
 (2) Explain 4*2 Encoder.
- (d) Write a note on Any One : **5**
 (1) Explain 3*8 Decoder.
 (2) Explain MUX.
- 3** (a) Attempt the following : **4**
 (1) $101 * 11 = \underline{\hspace{2cm}}$.
 (2) $1101 * 111 = \underline{\hspace{2cm}}$.
 (3) 10101010 Give 1's complement.
 (4) $111111 / 111 = \underline{\hspace{2cm}}$.
- (b) Answer in brief : (Any One) **2**
 (1) Explain Mantissa.
 (2) 10101010 perform 1's complement.
- (c) Answer in detail : (Any One) **3**
 (1) $101010111 + 11111$
 (2) $1111 / 11$
- (d) Write a note on Any One : **5**
 (1) Explain error detection code.
 (2) Explain Floating point representation.
- 4** (a) Attempt the following : **4**
 (1) Give the full form of a Register.
 (2) Give the full form of RPN.
 (3) List the components of CPU.
 (4) What is full Register.

- (b) Answer in brief : (Any One) **02**
(1) Explain Control Words.
(2) Explain I/O Bus.
- (c) Answer in detail : (Any One) **3**
(1) Explain Memory Stack.
(2) Explain Register Stack.
- (d) Write a note on Any One : **5**
(1) Explain Interrupt.
(2) Explain Memory Bus.
- 5** (a) Attempt the following : **4**
(1) What is Data Bus ?
(2) What is Address Bus ?
(3) What is Control Bus ?
(4) BR means _____.
- (b) Answer in brief : (Any One) **2**
(1) Explain Memory Bus.
(2) Explain I.O.P.
- (c) Answer in detail : (Any One) **3**
(1) Explain DMA Transfer.
(2) Explain DMA Controller.
- (d) Write a note on Any One : **5**
(1) Explain Working of DMA.
(2) Explain BUS in detail.
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