

B.Sc.(IT) Semester - 2 (CBCS) Examination
March/April - 2023 (OLD COURSE)
COMPUTER ORGANIZATION & ARCHITECTURE (CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Q.1(A) Answer the following questions. (04)**
1. What is Gate?
 2. POS stands for.....
 3. Not gate also known as
 4. List Basic gate.
- Q.1(B) Answer the following questions. (Any One) (02)**
1. Explain SR Flip-flop.
 2. What is Boolean algebra?
- Q.1(C) Answer the following questions. (Any One) (03)**
1. Explain Universal Gates.
 2. Explain D Flip-flop.
- Q.1(D) Answer the following questions. (Any One) (05)**
1. Explain DON'T Condition with suitable example.
 2. Explain K-map with suitable example.
- Q.2(A) Answer the following questions. (04)**
1. What is decoder?
 2. What is Register?
 3. IC stands for
 4. Full name of LSI.
- Q.2(B) Answer the following questions. (Any One) (02)**
1. Explain 2×4 Decoder.
 2. Explain shift register.
- Q.2(C) Answer the following questions. (Any One) (03)**
1. Explain block diagram of register.
 2. Explain binary counter in detail.
- Q.2(D) Answer the following questions. (Any One) (05)**
1. Explain Octal to Binary Encoder.
 2. Explain 1×4 De multiplexer.
- Q.3(A) Answer the following questions. (04)**
1. List Rules of Binary Multiplication.
 2. What is Parity Bit?
 3. $11011 \times 1001 = \dots\dots\dots$
 4. $1101 / 11 = \dots\dots\dots$
- Q.3(B) Answer the following questions. (Any One) (02)**
1. $1111 \times 1011 = \dots\dots\dots$
 2. Write Error Detection Code.
- Q.3(C) Answer the following questions. (Any One) (03)**
1. Explain Floating point representation in detail.
 2. Explain Parity Bit with suitable example.

- Q.3(D) Answer the following questions. (Any One) (05)**
1. Explain Binary Multiplication and division rules with example.
 2. Explain fixed point representation.
- Q.4(A) Answer the following questions. (04)**
1. What is memory stack?
 2. Full name of ALU.
 3. List major component of CPU.
 4. CPU stands for
- Q.4(B) Answer the following questions. (Any One) (02)**
1. Explain Register stack.
 2. What is interrupt?
- Q.4(C) Answer the following questions. (Any One) (03)**
1. Explain block diagram of ALU.
 2. Explain Accumulator Register.
- Q.4(D) Answer the following questions. (Any One) (05)**
1. Explain Polish notation and reverse Polish notation in detail.
 2. Explain General Register Organization in detail.
- Q.5(A) Answer the following questions. (04)**
1. What is Bus?
 2. Full name of DMA.
 3. IOP stands for
 4. What is Data Bus?
- Q.5(B) Answer the following questions. (Any One) (02)**
1. What is Address Bus?
 2. Explain Input output Processor.
- Q.5(C) Answer the following questions. (Any One) (03)**
1. Explain Memory Buses.
 2. Explain DMS Controller.
- Q.5(D) Answer the following questions. (Any One) (05)**
1. Explain Direct Memory Access in Detail.
 2. Explain Input out Buses in Detail.
