647510 **BIT2CoaC103x** **Seat No :_____**

B.Sc.(IT) Semester - 2 (*CBCS*) Examination
March/April– 2019 (New Course)
Computer Organization and Architecture(CORE)

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

Instructions:

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

Q – 1 :

A)	**Answer followings:**	**03**
1)	NAND is combination of ____ and _____gates.	
2)	Not is the second name of _____gate.	
3)	Full form of SOP is _____.	
B)	**Answer the following: (Any Two)**	**06**
1)	Explain Basic and Universal gates in detail.	
2)	Explain Meaning of Computer Organization and Architecture.	
3)	Explain the term Boolean Algebra.	
4)	Explain Karnough Map with rules in detail.	
C)	**Answer the following: (Any One)**	**05**
1)	Explain De Morgan's theorem in detail.	
2)	Explain Block Diagram of Computer in detail.	

Q – 2 :

A)	**Answer followings:**	**03**
1)	Full form of JK is_____.	
2)	In SR which input shows indeterminate state for output.	
3)	T flip flop stands for _____.	
B)	**Answer the following: (Any Two)**	**06**
1)	Explain sequential circuit detail.	
2)	Explain combinational circuit in detail.	
3)	Explain full adder in detail.	
4)	Explain state table in detail.	
C)	**Answer the following: (Any One)**	**05**
1)	Explain state diagram in detail.	
2)	Explain Flip flop with types.	

Q – 3:

A)	**Answer followings:**	**03**
1)	Full form of IC.	
2)	Full form of VLSI.	
3)	Full form of MSI.	
B)	**Answer the following: (Any Two)**	**06**
1)	Explain 2 * 4 line decoder in detail.	
2)	Explain 4 * 1 De-Multiplexer in detail.	
3)	Write a note on IC in detail.	
4)	Explain binary counter in detail.	

C) **Answer the following: (Any One)** **05**

1) Explain 8 * 3 encoder in detail.

2) Explain 3 * 8 decoder in detail.

Q – 4 :

A) **Answer followings:** **03**

1) Full form of CPU.

2) Full form of DR.

3) Full form of AC.

B) **Answer the following: (Any Two)** **06**

1) Explain Control word in detail.

2) Make Polish and Reverse polish Notion
→A*(B/C)
→(S-T)+f *q

3) Explain Accumulator Register.

4) Explain Stack representation using Reverse polish notations.

C) **Answer the following: (Any One)** **05**

1) Explain General Register Organization.

2) Explain DR,IR,PC,TR,INPR,OUTR in detail.

Q – 5 :

A) **Answer followings:** **03**

1) Full form of IOP.

2) Full form of BG.

3) Full form of BR.

B) **Answer the following: (Any Two)** **06**

1) Explain Cache Memory in detail.

2) Explain Boot Strap Loader in detail.

3) Explain Cycle stealing and burst transfer in detail.

4) Explain Auxiliary Memory in detail.

C) **Answer the following: (Any One)** **05**

1) Explain DMA transfer in detail.

2) Explain Memory hierarchy in memory system.

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