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B.Sc. DEGREE EXAMINATION, APRIL 2015
First Semester

**BSC1112 – COMPUTER ORGANIZATION AND
ARCHITECTURE**

(For the candidates admitted from the academic year 2011-2012 to 2013-2014)

Time: Three hours

Max. Marks: 100

Answer **ALL** Questions

PART – A (10 × 2 = 20 Marks)

1. What are the datatypes found in the registers of digital computers?
2. Define Gray Code.
3. Draw the basic Flip-Flops circuit.
4. What is Multiplexer?
5. Define Peripheral devices.
6. What is Asynchronous Data Transfer?
7. Define Microprocessor.
8. Write briefly about Assembly Language.
9. What are Subroutines?
10. Write the differences between call and return instructions.

PART – B (5 × 16 = 80 Marks)

11. a. Write in detail about Data types.

(OR)

- b. Discuss four variable map simplification using Don't care conditions with an example.

12. a. Explain the working of a Full Adder with a neat sketch.

(OR)

- b. Explain in detail the types of memory unit.

13. a. Explain about input-output interface in detail.

(OR)

- b. Discuss about Direct Memory Access (DMA).

14. a. Explain about microprocessor architecture and its operations.

(OR)

- b. Write about 8085 instruction set and classifications.

15. a. Explain about the programming techniques such as looping, counting and indexing.

(OR)

- b. Write about Arithmetic and logic operations.

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