

S.No. 1696

12UCSE01

(For the candidates admitted from 2012–2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Fifth Semester

Computer Science

Elective — COMPUTER SYSTEM ARCHITECTURE

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is meant by Boolean algebra?
2. Write the purpose of using Decoder.
3. Define Instruction code.
4. List out the three instruction code formats.
5. What is Compiler?
6. Define Subroutine.
7. Expand SIMD and MISD.

8. Distinguish Immediate and Indexed addressing modes.
9. What is meant by pipeline?
10. Define Vector processing.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write note on Half Adder.
Or
(b) Simplify $F(X, Y, Z) = \Sigma(0, 1, 5, 7)$ using three variable map.
12. (a) Difference between Hardwired control and Micro programmed control.
Or
(b) Write note on Registers and its types.
13. (a) Discuss about Assembler.
Or
(b) Explain about subroutines.
14. (a) List out the different types of addressing modes in detail.
Or
(b) Write the characteristics of RISC architecture.

15. (a) Explain about parallel processing.

Or

- (b) Write short notes on Instruction pipeline.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write note on Full Adder with neat diagram.
17. Explain memory reference instructions in detail.
18. Discuss different types of programming languages.
19. Explain about the computer instruction format.
20. Discuss various types of pipeline design in detail.