17P167   (Pages:2)   Name: ....

Reg.No........................

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2017

(CUCSS-PG)

CC17P CSS1 C05 - COMPUTER ORGANIZATION AND ARCHITECTURE

(Computer Science)

(2017 Admission regular)

Time: Three Hours   Maximum: 36Weightage

Part - A

Answer *all* questions. Each question carries **1** weightage

1. Define weighted Binary Code.

2. Explain De-Morgan's Theorems.

3. Define Edge Triggering in Flip-Flops?

4. What are the characteristics of the superscalar techniques?.

5. List the four stage of an instruction cycle?

6. Write the difference between hardwired and micro programmed control?

7. What is fast adder?

8. How can you perform multiplication of floating point number?.

9. Define 8-bit Microprocessor, explain its flag register.

10. Explain floating point representation?

11. Explain different modes of operation in 8086?

12. How the parallel processing is possible in 8086?

(12×1=12 Weightage)

Part - B

Answer any *six* questions. Each question carries **2** weightage

13. Describe the function of decoder?

14. Define Error Detecting Codes.?

15. Explain One Bus, Two Bus, Three Bus organization of data path?

16. What are the difference between CISC and RISC?

17. What is a 4-bit carry ahead adder? Explain with the help of a diagram?

18. Describe memory hierarchy in detail?

19. Explain the different modes of data transfer?

20. Explain logical instructions in 8085?

21. Explain 20 bit physical address calculation mechanism in 8086?

(6×2=12 Weightage)

Part - C

Answer any *three* questions. Each question carry **4** weightage

22. Explain Synchronous and Asynchronous counter operations with diagram?

23. Explain the difference between the various types of addressing modes?

24. Explain the multiplication using Booth algorithm?

25. Explain the three different mapping methods while taking into account the set-up of the cache memory?.

26. Explain the internal architecture of 8086 with functional block diagram and pin out ?

27. Explain the 8051 microcontroller architecture with the help of a diagram?

(3×4=12 Weightage)

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