

F.Y. B.Sc.(IT) : Sem. II  
**Microprocessor Architecture**  
Prelim Question Paper

Time : 2½ Hrs.]

[Marks : 75

- N.B.: (1) All questions are compulsory.  
(2) Make suitable assumptions wherever necessary and state the assumptions made.  
(3) Answer to the same questions must be written together.  
(4) Numbers to the right indicate marks.  
(5) Draw neat labeled diagrams wherever necessary.  
(6) Use of Non-programmable calculators is allowed.

1. Attempt the following (any THREE) [15]  
(a) List down feature of 8085.  
(b) Draw 8085 Architecture and explain in about accumulator.  
(c) Explain difference type of register in 8085.  
(d) Draw interfacing of 8155 to 8085.  
(e) Draw function pin diagram of 8085.  
(f) Explain interfacing of 8085 with memory interface 1k RAM and 1k ROM.
2. Attempt the following (any THREE) [15]  
(a) Explain data transfer instruction and load and store instruction.  
(b) Explain addressing mode.  
(c) Explain logical instruction.  
(d) Explain Arithmetic instructions.  
(e) WAP to transfer N Byte. Block Data from one memory location to other memory location.  
(f) WAP to find 2's complement of number.
3. Attempt the following (any THREE) : [15]  
(a) Explain Rotate Instruction.  
(b) WAP to add and subtract two eight bit number.  
(c) What is subroutine? and write its importance.  
(d) Explain delay using 16 bit counter and calculate total time delay.  
(e) Explain use of stack by program using push and Pop instruction.  
(f) Explain Branching Instruction (CALL, JUMP)
4. Attempt the following (any THREE) [15]  
(a) Short note on Assembler and Cross Assembler.  
(b) WAP to Binary to ASCII Conversion.  
(c) WAP to Packed the unpacked BCD.  
(d) WAP to convert BCD to ASCII,  
(e) WAP to convert ASCII to BCD.  
(f) WAP for BCD addition and subtraction.
5. Attempt the following (any THREE) [15]  
(a) Differentiate i3, i5 and i7 processor.  
(b) Explain Sun SPARC Architecture.  
(c) Explain special Pentium programmer feature.  
(d) Explain memory management of Pentium processor.  
(e) List down Pentium Instruction. Explain Pentium special register.  
(f) Explain Sun SPARC Instruction format.

**Paper Discussion Schedule for all Subjects: F.Y.B.Sc.IT (Sem. II)**

Date	Day	Timing	Centre
11 April. 2017	Tuesday	9.00 a.m. to 11.00 a.m.	Dadar
11 April. 2017	Tuesday	12.00 p.m. to 2.00 p.m.	Andheri
12 April.2017	Wednesday	9.00 a.m. to 11.00 a.m.	Thane
12 April.2017	Wednesday	12.00 p.m. to 2.00 p.m.	Ghatkopar
13 April.2017	Thursday	3.00 p.m. to 5..00 p.m.	Kalyan

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