

SVKM's NMIMS
MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Programme: MBA Tech (Computer)

Year: II

Semester: III

Batch: **2017-18**

Academic Year: 2017-2018

Subject: Computer Organization & Architecture

Date: 29 May 2018

Marks: 70

Time: 10.00 am to 1.00 pm

Durations: 3 (Hrs)

No. of Pages: 02

Re-Examination

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.

- 1) Question No. 1 is compulsory.
- 2) Out of remaining questions, attempt any 4 questions.
- 3) **In all 5 questions to be attempted.**
- 4) All questions carry equal marks.
- 5) **Answer to each new question to be started on a fresh page.**
- 6) **Figures in brackets on the right hand side indicate full marks.**
- 7) Assume suitable data if necessary.

Q.1

- a) Differentiate between computer organization and architecture. [2]
- b) Explain and differentiate between RISC and CISC. [6]
- c) List various RAID architectures and explain any two in detail. [6]

Q.2

- a) List various page replacement policies, and explain any one with suitable example. [7]
- b) Explain DMA based data transfer technique for I/O devices. [7]

Q.3

- a) Explain Booth's algorithm and Multiply (-7) with (4) with the same. [7]

$\frac{1}{2}$

b) Explain Flynn's classification in detail.

[7]

Q.4

a) What are the features of cache memory design?

[7]

b) Explain architecture of Math Co-processor.

[7]

Q.5

a) Explain 6-stage instruction execution with pipelined processor with state diagram.

[7]

b) Write a short note on IEEE 754 single and double precision floating point representation with suitable example.

[7]

Q.6

a) Describe hard-wired control unit and specify its advantages.

[7]

b) Explain interrupt driven I/O with diagram.

[7]

Q.7 Write short notes on any two.

[14]

a) Bus Arbitration Techniques.

b) Interleaved memory

c) Memory Hierarchy