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Total Number of Pages : 01

**B.Tech
PECS5404**

7th Semester Back Examination 2019-20
ADVANCED COMPUTER ARCHITECTURE
BRANCH : CSE, IT, ITE
Time : 3 Hours
Max Marks : 70
Q.CODE : HB347

Answer Question No.1 which is compulsory and any FIVE from the rest.
The figures in the right hand margin indicate marks.

- Q1 Answer the following questions : (2 x 10)**
- a) What is cache memory?
 - b) Difference between assembly language and machine language.
 - c) Explain the term "mapping "
 - d) What is Bootstrap loader?
 - e) Mention the different phases of instruction cycle.
 - f) What is addressing mode?
 - g) Define the term "Virtual Memory "
 - h) What is DMA?
 - i) Define the term " Micro Instruction "
 - j) What do you mean by indexed addressing Mode?
- Q2 a) Explain I/O Module in details. (5)**
b) Write the difference between Random Access Memory and Serially Access Memory. (5)
- Q3 a) Explain Booth's multiplication algorithm with the help of an example. (5)**
b) What is meant by " Locality of reference " and how does it help in faster execution of the program. (5)
- Q4 a) Explain 5 logical operations of a basic computer. Discuss SIMD processor organization. (5)**
b) Write the need of Virtual memory concept. (5)
- Q5 a) List the features of RISC over CISC machine. (5)**
b) Explain the various phases of an instruction cycles in details. (5)
- Q6 How a logical address is mapped to physical address in Virtual Concept? (10)**
Explain with examples.
- Q7 Explain how data may be transferred from hard disk to memory using DMA (10)**
including arbitrations for the Bus.
- Q8 Write short Notes on any TWO : (5 x 2)**
- a) Micro programmed control
 - b) Bus arbitration
 - c) Memory management