SARDAR PATEL COLLAGE OF ENGINEERING, BAKROL, ANAND

Subject Name: Computer Organization & Architecture **semester: 4th**

Subject Code: 2140707 **Branches: I.T.**

Assignment – 3

Given Date: 17/04/2020 ***Last Date: 27/04/2020**

1. **Explain subroutine call and return with micro-operation.**
2. **Explain Flynn's classification of computer.**
3. **Explain Inter-process communication**
4. **Explain parallel processing.**
5. **Explain different types of Interrupts.**
6. **Explain paging and address translation with example.**
7. **Explain push and pop operation on stack.**
8. **Compare SRAM and DRAM.**
9. **Explain Booth's algorithm with flowchart.**
10. **Explain BCD Adder with its block diagram**

Assignment-4

Given Date: 17/04/2020 ***Last Date: 27/04/2020**

1. **Give the feature of multiprocessor system**
2. **Differentiate tightly coupled and loosely coupled systems**
3. **Explain the role of associative memory.**
4. **Draw and explain shared memory architecture of multiprocessor system**
5. **How virtual memory helps in increasing the storage capacity of a system?**
6. **What is the use of IOP? Explain its communication with CPU.**
7. **Signify the cache coherence in memory.**
8. **Give the use and role of C**

Assignment-5

Given Date: 17/04/2020 ***Last Date: 27/04/2020**

1. **Draw flowchart hardware multiplication algorithm and explain it.**
2. **Differentiate Programmed I/O and Interrupt initiated I/O**
3. **What is speedup? Derive the equation of speedup for k-segment pipeline processing for task.**
4. **Explain pipeline processing conflict.**
5. **List out address sequencing capabilities required in control memory.**
6. **Explain Daisy chain priority interrupt.**
7. **Discuss associative mapping and direct mapping in organization of cache memory.**
8. **Describe SIMD array processor.**
9. **Write an assembly program to add 10 numbers from memory.**
10. **How main memory is useful in computer system? Explain the memory address map of RAM and ROM.**

***Note: Consider the last date as final deadline to the assignment. After the last date assignment will not be accepted in any case.**

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