Total No. of printed pages = 3

Co-604/PP/6th Sem/Comp/2017/M

# PARALLEL PROCESSING

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer question No.1 and any *four* from the rest.

1. Define any *two* : 2×5=10

   (a) Illiac mesh

   (b) Systolic array

   (c) Node degree

2. (a) Write about parallel processing application. 7

   (b) Write a parallel algorithm for SIMD matrix multiplication. 8

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3. Write the difference between any *three* : 3×5=15

(a) Static and dynamic inter connection.

(b) Parallelism and pipelining.

(c) Scalar and vector pipelining

(d) Paged memory system and segmented memory system.

4. (a) Describe 8×8 multistage Omega Network. 5

(b) What is perfect suffle ? Explain with diagram. 4

(c) Define 3 cube and Ring. 3+3=6

5. (a) Why placement policies are required while dealing with cache memory ? Name and explain any one of them. 2+2+3=7

(b) Define the cache coherence problem. 3

(c) Write about hierarchical memory system. 5

6. (a) Explain the computer architecture with diagram according to the Flaymn's. 7

(b) Explain about the structure and algorithm for array processor. 4+4=8