MCA (Revised)
Term-End Examination
June, 2015

06553

MCSE-011 : PARALLEL COMPUTING

Time : 3 hours *Maximum Marks : 100*

Note : *Question Number 1 is* **compulsory.** *Attempt any* **three** *questions from the rest.*

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1. (a) Explain dataflow computation model with an example. *10*

   (b) Discuss and explain Handler's classification. *10*

   (c) Explain the steps for compiling and running the PVM program. *10*

   (d) What are intrinsic functions ? Name any two of them. *10*

2. (a) Explain Bernstein's condition and determine the parallelism in the following segment : *10*

   $S_1 : X = Y + Z$

   $S_2 : Z = U + V$

   $S_3 : R = S + V$

(b) Define any *two* of the following terms : **10**

    (i) Node degree

    (ii) Network diameter

    (iii) Static interconnection network

3. (a) What is the condition for compacting the instructions in a VLIW instruction word ? **10**

    (b) List the various visualization tools employed in performance analysis. **10**

4. (a) Discuss the differences between Grid computing and Cluster computing. **10**

    (b) Discuss and explain the metrics for performance evaluations. **10**

5. Write short notes on the following : *5×4=20*

    (a) Amdahl's Law

    (b) IA-64 Architecture

    (c) Hyper Threading

    (d) Benz Network

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