

# SPPU-BE-COMP-CONTENT – KSKA Git

Total No. of Questions : 4]

SEAT No. :

PD-265

[Total No. of Pages : 2

[6411]-40

**B.E. (Computer Engineering) (Insem.)**  
**HIGH PERFORMANCE COMPUTING**  
**(2019 Pattern) (Semester - VIII) (410250)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates :*

- 1) *Answer Q. 1 or Q. 2, Q. 3 or Q. 4*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

**Q1) a)** What are types of dataflow execution models? [6]

b) Explain SIMD, MIMD and SIMT architectures. [5]

c) Write a short note on Level of Parallelism. [4]

OR

**Q2) a)** Explain N-wide Superscalar Architectures. [6]

b) Explain Cache coherence in multiprocessor system. [5]

c) What are the application of parallel computing? [4]

**Q3) a)** Explain any three-decomposition technique with example. [6]

b) Explain classification of Dynamic mapping techniques. [5]

c) What are characteristics of task and interaction? [4]

OR

*P.T.O.*

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- Q4)** a) Explain with example (any two): [6]
- i) Recursive decomposition
  - ii) Data decomposition
  - iii) Exploratory decomposition
- b) Explain different schemes for Static Mapping. [5]
- c) Give the characteristics of task. [4]

