Pre. Ph.D. Course Work (2017 Course) : SUMMER - 2018

(Interdisciplinary Studies)

SUBJECT : PAPER – II : (COMPUTER ENGINEERING)

Day : Tuesday **Time : 10.00 AM TO 01.00 PM**

Date : 26/06/2018 **S-2018-4790** **Max. Marks : 100**

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.

Q.1 Do the comparative analysis of Bubble sort and selection sort with respect to time and space complexity? **(10)**

OR

Do the comparative analysis of linked list and queues with respect to time and space complexity?

Q.2 Enlist the different techniques for process management and suggest which technique is better to use. **(10)**

OR

Why HDFS is taking more importance now a days? Explain.

Q.3 Differentiate between virtual and cache memory. **(10)**

OR

Explain I/O organization architecture in detail.

Q.4 Differentiate between greedy and parallel algorithms. **(10)**

OR

What are the different asymptotic notations used in algorithms and how efficiently it will be used in research?

Q.5 Describe the waterfall life cycle with example. **(10)**

OR

What is agile development? How it is a better option for software development?

Q.6 Explain the different big data optimization techniques. **(10)**

OR

What are the different open source data collection tools available? Explain any three tools.

Q.7 What is advanced learning? How it will be useful in research? **(10)**

OR

Explain the different efficient data retrieval algorithms.

Q.8 What is fuzzy logic? Explain the systems where the fuzzy logic is used? Also explain the fuzzy membership functions. **(10)**

OR

Explain the different supervised and unsupervised machine learning algorithms.

Q.9 Write short note on 1) IoT 2) WSN. **(10)**

OR

Write short note on 1) Biometrics 2) Advancement in VoIP.

Q.10 Write short note on 1) 3D Geometric object representation 2) Tone Mapping **(10)**

OR

Write short note on 1) Rendering 2) Shading algorithms

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