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M.Phil/2nd Sem/COMSC/19

2019

M.Phil.

2nd Semester Examination
COMPUTER SCIENCE

Paper - COM 122
(Machine Learning)

Full Marks : 50

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.
Illustrate the answers wherever necessary.*

Answer any *four* questions from the following :

4×10=40

1. (a) What are the difference between supervised and unsupervised learning ? 6
- (b) What is Reinforcement learning ? 4
2. (a) What is Bayes Network ? What are the application of Bayesian Network ? 2+2

[Turn Over]

- (b) Explain Hidden Markov Model (HMM). 6
3. (a) Explain K-NN classification algorithm. 6
- (b) Explain Support Vector Machine. 4
4. (a) What do you mean by hierarchical clustering ? 5
- (b) What is overfitting and underfitting in regression line ? 5
5. (a) What is event and sample space ? 2+2
- (b) What do you mean by feature extraction ? What is PCA ? 3+3
6. Write short note on (any two) : 5×2=10
- (a) Bioinformatics.
- (b) Kohonen self organizing map.
- (c) Delta learning rule.

[Internal - 10 marks]
