

Department of Computer Science and Engineering, Punjabi University, Patiala

B.Tech.-III

MST-II

Time: 1 hour

MM:15

Note: Question 1 is compulsory. Attempt any two out of questions 2, 3 and 4.

Q 1. Answer the following briefly:

- Discuss any four real-life applications of clustering.
- List the characteristics of principal components.
- Discuss various activation functions.
- Define a deep neural network.
- Differentiate between feature selection and feature extraction.

Q 2. Explain the k-means clustering algorithm in detail. Discuss its implementation in Python.

Q 3. What is the need of dimensionality reduction? Discuss any one of the following dimensionality reduction techniques in detail: (a) PCA or, (b) LDA.

Q 4. Describe the architecture of artificial neural networks. Discuss the backpropagation algorithm in detail.

MM. 15

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Time: 1 hrs.

## Mobile Application Development

Section A is compulsory. Attempt any two from section B.

### Section-A

Give brief answers

1. What is the significance of Monkeytalk testing tool?
2. Explain JUnit annotation.
3. What is the meaning of override of event handling in MAD?
4. What do you mean by MODE\_Private in case of Ondevice File I/O?
5. What do you mean by zero configuration?

### Section-B

- 6 a) Write the differences between Robotium & monkeytalk testing tool.  
b) What are the challenges of white box testing?
  - 7 a) Explain the significance of Async tasks.  
b) How would you create database in SQLite?
  - 8 a) Explain shared preferences with code.  
b) How does Firebase authentication provide security to your application?
- answer.*

**Department of Computer Science and Engineering**

Punjabi University, Patiala

MST-2 (B.Tech 6<sup>th</sup> Semester)

Cloud Computing (CSEB3604T)

Marks: 15

Times: 1 Hr.

Dr. Harmandeep Singh

Dr. Gurjit Singh Bhathal

**Note: Question 1 is compulsory. Attempt total three question each carries 5 marks.**

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1) Explain the Following Terms:

- a) Web 3.0
- b) Hypervisor
- c) MapReduce
- c) Share Point
- d) MOOC Model

2) What is the role of SOA in Cloud Computing? Explain the architecture of SOA.

3) What is cloud Storage and also compare google storage and S3.

4) What are the different steps to install and configure Virtual Machine? Explain