Hall Ticket Number:

March, 2018	**Common to CSE & IT**
Eighth Semester	**Advanced Data Analytics**
Time: Three Hours	**Maximum:** 60 Marks

Answer Question No.1 compulsorily. (1X12 = 12 Marks)

Answer ONE question from each unit. (4X12=48 Marks)

1. Answer all questions (1X12=12 Marks)
   a) What is Virtual Machine?
   b) Compare RDBMS and Big Data.
   c) What is HDFS formatting? Write the HDFS formatting command.
   d) Write the names of Daemons in Hadoop.
   e) What are the advantages of Hadoop?
   f) Define the role of combiner and partitioners in a map reduce application.
   g) What is GFS?
   h) How to create a table in HIVE SQL?
   i) Define the three key design principles of pig latin.
   j) What is a pig in Hadoop?
   k) What is the difference between Floom and Sqoop in Hadoop?
   l) What tools are called ETL tools in Hadoop Environment?

UNIT I

2. What are the advantages of Hadoop? Explain Hadoop Architecture and its Components with diagram. 12M

(OR)

3. Explain working of following phases of Map Reduce with one common example.
   (i) Map Phase 3M
   (ii) Combiner Phase 3M
   (iii) Shuffle and Sort Phase 3M
   (iv) Reducer Phase 3M

UNIT II

4. a) Explain about the various data types supported by pig in its data model with an example. 6M
   b) How the pig programs can be packaged and explain the modes of running a pig script with a neat diagram. 6M

(OR)

5. a) Explain the architecture of a pig with a neat sketch. 6M
   b) Explain the syntax of a pig program with a suitable example. 6M

UNIT III

6. a) What do you mean by HiveQL Data Definition Language? 6M
   b) Explain any three HiveQL DDL command with its syntax and example. 6M

(OR)

7. a) Elaborate on HivQL data manipulation queries in detail. 6M
   b) Explain Metastore in Hive. 6M

UNIT IV

8. a) What is Floom Tool? Explain the working of Floom in Hadoop. 6M
   b) Write down the procedure to write the log data into HDFS using flume. 6M

(OR)

9. Explain the methods of loading scripts using sqoop. 12M

Hall Ticket Number:

March, 2018	**Common to CSE & IT**
Eighth Semester	**Wireless Networks**
Time: Three Hours	**Maximum :** 60 Marks

Answer Question No.1 compulsorily. (1X12 = 12 Marks)

Answer ONE question from each unit. (4X12=48 Marks)

1. Answer all questions (1X12=12 Marks)
   a) Illustrate the importance of multiplexing
   b) Write the applications of wireless networks and mobile communications.
   c) Abbreviate CDMA
   d) Demonstrate the DECT?
   e) Explain the operation of digital audio broadcasting
   f) What are the applications of satellites
   g) Write the comparison between Radio Transmission and Infrared Transmission
   h) Give the advantages of IEEE 802.11
   i) Define Mobile IP
   j) Explain Transaction oriented TCP
   k) Define Wireless transaction protocol
   l) Acronym of WML

UNIT I

2. a) Explain briefly about architecture of a simplified reference model of a wireless network 6M
   b) Write short note on Signal Propagation and Spread Spectrum 6M

(OR)

3. a) Distinguish various features of SDMA, FDMA, TDMA, and CDMA in detail. 6M
   b) What is the reason for failure of MAC schemes in wireless networks? What is done in wired networks to avoid this effect? 6M

UNIT II

4. a) Demonstrate the system architecture of GSM with a neat diagram. 8M
   b) Discuss in detail about GSM services. 4M

(OR)

5. a) Write short note on cyclic repetition of data 4M
   b) Explain the Localization in GSM 8M

UNIT III

6. a) Describe briefly about WLAN system architecture. 6M
   b) Explain different user scenarios of Bluetooth. 6M

(OR)

7. a) List the entities of mobile IP and describe data transfer from a mobile node to a fixed node and vice-versa. 8M
   b) How can DHCP be used for mobility and support of Mobile IP? 4M

UNIT IV

8. a) Explain mobile TCP. How does a supervisory host send TCP packets to the mobile node and to a fixed TCP connection? Give the advantages and disadvantages of mobile TCP. 8M
   b) Explain congestion control in traditional TCP. 4M

(OR)

9. a) Write a short note on wireless session protocol 4M
   b) Explain wireless application protocol architecture with a neat sketch 8M

Hall Ticket Number:

March, 2018   **Common for CSE & IT**

Eighth Semester   **Software Testing Methodologies**

Time: Three Hours   **Maximum :** 60 Marks

Answer Question No.1 compulsorily.   (1X12 = 12 Marks)

Answer ONE question from each unit.   (4X12=48 Marks)

1. Answer all questions   (1X12=12 Marks)

     a.   What is meant by Validation?
     b.   Difference between Structural testing & Static Testing?
     c.   When to do Black box testing?
     d.   Uses of integration testing?
     e.   What is meant by aesthetics testing?
     f.   What is Scalability testing?
     g.   Uses of defect seeding.
     h.   What is accessibility testing?
     i.   Write various success factors for testing organizations?
     j.   List categories of Best practices in testing.
     k.   What is meant by a test framework?
     l.   Why metrics in testing?

UNIT I

2.a.   List and Describe fundamental principles of testing.   6M

2.b   Explain structural testing in detail.   6M

(OR)

3.a.   What are the phases of software project? Explain.   6M

3.b.   Describe how to do black box testing.   6M

UNIT II

4.a.   Describe Bi-directional integration and system integration.   6 M

4.b.   What test cases can be included for acceptance testing? Explain.   6 M

(OR)

5.a.   Describe the process for performance testing.   6 M

5.b   How to do regression testing? Explain in detail.   6 M

UNIT III

6.a   Explain agile and extreme testing in detail.   6 M

6. b   Describe Roles and responsibilities of usability testing.   6M

(OR)

7.a.   Explain perceptions and misconceptions about testing.   6 M

7.b   Describe Typical roles and responsibilities of testing services organization.   6 M

UNIT IV

8.a.   Explain test planning in detail.   6 M

8. b   Describe classification of skills for automation.   6 M

(OR)

9.a   Explain test management in detail.   6 M

9.b   Illustrate types of metrics with relevant figure.   6 M