

M3N18158

(Pages : 2) ,

Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Third Semester M.Sc Degree Examination, November 2018  
MCS3C01 - Advanced Database Management System  
(2016 Admission onwards)

Max. Time: 3 hours

Max. Weightage: 36

**PART A**

*Answer all questions.*

*Each question carries 1 weightage.*

1. Define data abstraction.
2. Define data model.
3. What is a schedule?
4. What is logical data independence.
5. What is insert anomaly?
6. Write a note on nested sub query.
7. What is SQL assertion.
8. Write down the the stages of processing a query in a DDBMS?
9. What is the difference between a primary key and a superkey?
10. What is SQL view.
11. What is the difference between persistent and transient objects?
12. What is the concept of operator overloading in OOD?

**(12 x 1 = 12 Weightage)**

**PART B**

*Answer any six questions.*

*Each question carries 2 weightages.*

13. Briefly explain the relational algebra operations SELECT and PROJECT with examples.
14. Differentiate network data model and hierarchical data model.
15. Explain transitive dependency with an example.
16. Explain third normal form with an example.
17. Explain any four transaction processing operations.
18. Explain the lost update problem.
19. Explain GROUP BY and HAVING clauses of SQL with examples.
20. Briefly explain different types of database users.
21. What are the differences and similarities between objects and literals in the ODMG object model?

**(6 x 2 = 12 Weightage)**



M3N18160

(Pages : 2)

Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester M.Sc Degree Examination, November 2018

**MCS3C03 - Object Oriented Programming Concepts**

(2016 Admission onwards)

Max. Time: 3 hours

Max. Weightage: 36

**Part A**

*Answer all questions.*

*Each question carries 1 weightage*

1. Which are the Primitive Data Types in Java?
2. Write down the syntax for SWITCH statement.
3. How Java performs Type Conversion Automatically?
4. What is Static Member in Java?
5. Write down the functionality of 'new' operator in Java.
6. What does \* stand for in importing Packages? What is the drawback of using it?
7. Describe wait and notify methods.
8. Differentiate between 'throw' and 'throws' keywords.
9. Write a short note on different types of Applets?
10. Describe the significance of AWT in building GUI.
11. What is a socket?
12. What do you mean by State Diagrams?

(12 x 1 = 12 Weightage)

**Part B**

*Answer any six questions*

*Each question carries 2 weightages.*

13. Explain about arrays in Java.
14. Describe about Keywords and Literals.
15. What is a Constructor? Can a class have different Constructors? Explain.
16. Summarize the Visibility provided by various Access Modifiers.
17. Explain about Thread Synchronization.
18. Explain about Byte Streams and Character Streams.
19. Explain about Delegation Event Model.
20. With a suitable example explain passing of parameters to applets.
21. Discuss about Object Interaction Diagram in UML. When to use them?

(6 x 2 = 12 Weightage)



Part C

Answer any three questions.  
Each question carries 4 weightages

22. Write a complete Java program to read and print a two dimensional matrix of integers.
23. Give an account of the following features of Java  
(a) Portable (b) Distributed (c) Secure (d) Dynamic
24. (a) Differentiate between Method Overloading and Method Overriding.  
(b) What is the significance of Abstract Class? Give suitable example.
25. (a) What is a Thread?  
(b) Give an appropriate Java program to illustrate the concept of Thread.
26. (a) Explain the features of AWT. Write and explain a simple AWT program.  
(b) Explain with suitable example Event Handling in AWT programming.
27. (a) Explain how database connectivity can be established with JDBC.  
(b) Write a suitable program illustrating the steps in working with databases.

(3 x 4 = 12 Weightage)

A B C D E  
1 4 3 2 0  
2 8 6 4 2 0  
4 16 12 8 4 0

$4 \times 12 = 48$   
 $8 \times 6 = 48$   
 $16 \times 3 = 48$   
144

112  
133  
111  
61  
99  
123  
105  
109  
114  
109  
112



M3N18160

(Pages : 2)

Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Third Semester M.Sc Degree Examination, November 2018  
MCS3C03 - Object Oriented Programming Concepts  
(2016 Admission onwards)

Max. Time: 3 hours

Max. Weightage: 36

**Part A**

*Answer all questions.*

*Each question carries 1 weightage*

1. Which are the Primitive Data Types in Java?
2. Write down the syntax for SWITCH statement.
3. How Java performs Type Conversion Automatically?
4. What is Static Member in Java?
5. Write down the functionality of 'new' operator in Java.
6. What does \* stand for in importing Packages? What is the drawback of using it?
7. Describe wait and notify methods.
8. Differentiate between 'throw' and 'throws' keywords.
9. Write a short note on different types of Applets?
10. Describe the significance of AWT in building GUI.
11. What is a socket?
12. What do you meant by State Diagrams?

(12 x 1 = 12 Weightage)

**Part B**

*Answer any six questions*

*Each question carries 2 weightages.*

13. Explain about arrays in Java.
14. Describe about Keywords and Literals.
15. What is a Constructor? Can a class have different Constructors? Explain.
16. Summarize the Visibility provided by various Access Modifiers.
17. Explain about Thread Synchronization.
18. Explain about Byte Streams and Character Streams.
19. Explain about Delegation Event Model.
20. With a suitable example explain passing of parameters to applets.
21. Discuss about Object Interaction Diagram in UML. When to use them?

(6 x 2 = 12 Weightage)



FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester M.Sc Degree Examination, November 2018

MCS3E04(6) - Data Ware Housing and Data Mining

(2016 Admission onwards)

Max. Time: 3 hours

Max. Weightage: 36

**Part A***Answer all questions*

1. Define Data Warehouse.
2. What is Snowflake schema?
3. What is a data reduction?
4. Why Correlation Analysis is used in Association rule mining?
5. Define Confidence in data mining.
6. What is an Recall in Data mining?
7. What are Lazy Learners?
8. What is meant Clustering of data?
9. What is Multimedia Mining?
10. Define Prediction?
11. What is Graph Mining?
12. What is Outlier Analysis?

**(12 x 1 = 12 weightage)****Part B***Answer any six questions**Each question carries 2 weightge*

13. With a neat diagram explain the steps involved in Knowledge Discovery Process.
14. Describe various OLAP operations that can be performed in multidimensional data.
15. How ETL Process helps to create a good data warehouse?
16. Give a detailed account of different methods for data pre-processing.
17. With a neat diagram explain the architecture of a Data warehouse..
18. Explain different Hierarchical Clustering methods.
19. Explain data reduction with its advantages.
20. Discuss different Data Mining Functionalities.
21. Explain Mining in the World Wide Web.

**(6 x 2 = 12 weightage)**

**Part C**

**Answer any three questions**

**Each question carries 4 weightge**

22. Explain major issues in Data Mining.
23. How the accuracy of a classifier can be evaluated?
24. Explain Apriori algorithm for generating Frequent Item set in Association Mining.
25. Explain various Model based Clustering Methods.
26. Explain classification by back propagation.
27. Discuss Outlier Analysis..

**(3 x 4 = 12 weightage)**



M3N18162

(Pages : 2)

Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Third Semester M.Sc Degree Examination, November 2018  
MCS3E05(5) - Fundamentals of Big Data  
(2016 Admission onwards)

Max. Time: 3 hours

Max. Weightage: 36

**PART A**

Answer **ALL** questions. Each question carries 1 weightage.

1. What is Reducer class?
2. What are the four dimensions of *Bigdata*?
3. What do you mean by *Bigdata Analysis*?
4. What is NoSQL?
5. What is HDFS?
6. Define Google Prediction API
7. What is Mapper Class?
8. Define `_id` Field.
9. What is meant by slicing and dicing?
10. What is Hive?
11. Define Pig?
12. What is the use of `$elemMatch`?

(12 x 1 =12 Marks)

**PART B**

Answer any **SIX** questions. Each question carries 2 weightage.

13. Explain Record reader and Record writer.
14. What are the features *Bigdata*? Explain.
15. Differentiate structured and unstructured data in detail.
16. How distributed computing is related to Big Data? Explain.
17. Give any four features of MongoDB.
18. Explain how to create a collection in MongoDB.
19. Illustrate the role of a CMS in big data management.
20. Explain text analytics tools for Big Data.
21. Distinguish between relational databases and non-relational databases.

(6 x 2 =12 Marks)



## PART C

Answer any **THREE** questions. Each question carries 4 weightage.

22. What is meant by MapReduce? With a suitable example explain map-reduce flow-chart.
23. Explain Big Data Technology Stack and its various layers.
24. Discuss Characteristics of a Big Data Analysis Framework.
25. What you understand by aggregation? Give a detailed account of aggregation commands in MongoDB.
26. Write notes on:
  - a. Relational databases
  - b. Non-relational databases.
  - c. Apache Avro
  - d. Apache Lucene

(3 x 4=12 Marks)