

For Candidates Admitted From 2018

2018 MCS 23C

ROLL NO.....

**M.SC. DEGREE EXAMINATIONS, APRIL 2019
SEMESTER - II COMPUTER SCIENCE
ADVANCED JAVA PROGRAMMING**

Time: 3 Hrs

Max. Marks: 75

PART - A (10 X 2 = 20)

ANSWER ALL THE QUESTIONS

1. What is meant by Array?
2. What is Abstract Class?
3. Define: Exception.
4. Write the syntax of nested try statement.
5. What is meant by Synchronization?
6. What do you mean by Utility Classes?
7. List out any four AWT Classes.
8. How will you creating a database in MYSQL?
9. What is JavaScript variable?
10. What is meant by Event Handlers in JavaScript?

PART-B (5 X 5 =25)

ANSWER ALL THE QUESTION

11. a. Describe about the data types with an example.
(or)
b. Illustrate the Method Overloading with an example.
12. a. Discuss about the importing package with an example.
(or)
b. Summarize the java built-in exceptions.
13. a. How will you creating Multiple Threads? Give an example.
(or)
b. Describe substring () and replace() string functions with an example.
14. a. Explain about the window fundamentals in detail.
(or)
b. Illustrate about drawing rectangle and polygons with example.

15. a. Explain about Popup boxes in JavaScript.
(or)
b. Elucidate Date and Time functions in JavaScript.

PART-C (3 X 10 = 30)

ANSWER ANY THREE QUESTIONS

16. Explain various types of operators with an example.
17. Discuss about implementing interface with an example program.
18. Explain the following:
(i) Byte Stream [3 marks]
(ii) Character Stream [4 marks]
(iii) Pre-defined Stream [3 marks]
19. Explain about working with fonts in detail.
20. Analyze the looping structures in JavaScript with suitable examples.

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2018 MCS 22C

ROLL NO.....

M.SC. DEGREE EXAMINATIONS, APRIL 2019

SEMESTER - II COMPUTER SCIENCE

ADVANCED OPERATING SYSTEM

Time: 3 Hrs

Max. Marks: 75

PART - A (10 X 2 = 20)

ANSWER ALL THE QUESTIONS

1. What is Real-Time Operating System?
2. Define: Interrupts.
3. What is meant by Critical Section?
4. What is Semaphore?
5. What do you mean by paging?
6. What is Thrashing?
7. What is meant by file?
8. What do you mean by I/O Buffering?
9. What is meant by UNIX?
10. What is meant by swapping?

PART - B (5 X 5 = 25)

ANSWER ALL THE QUESTIONS

- 11.a) Explain about structure of Operating System.
(or)
b) Discuss Process Creation and Termination.
- 12.a) Comment on the Mutual Exclusion.
(or)
b) Elucidate the Sleeping Barber Problems.
- 13.a) Elucidate about Dynamic Partitioning.
(or)
b) Describe in detail about Demand Segmentation.
- 14.a) Illustrate about File Sharing in detail.
(or)

b) Write a note on Disk Cache.

15. a) Explain about the algorithm for Init process.

(or)

b) Describe about fork and exec commands in UNIX.

PART - C (3 X 10=30)

ANSWER ANY THREE QUESTIONS

16. Explain about types of Thread in detail.
17. Explain about the Dinner Philosopher Problem.
18. Discuss briefly about Page Fault Handling.
19. Explain about File System Architecture in detail.
20. Discuss about the process scheduling in UNIX Operating System.

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ROLL NO.....

M.SC. DEGREE EXAMINATIONS, APRIL 2019

SEMESTER - II COMPUTER SCIENCE

DATA MINING WITH R PROGRAMMING

Time: 3 Hrs

Max. Marks: 75

PART - A (10 X 2 = 20)

ANSWER ALL THE QUESTIONS

1. What is data mining query language?
2. What is meant by cluster-based binning?
3. What are Bayesian Classifiers?
4. List out the types of data in cluster analysis?
5. List out the industry examples of Big Data.
6. What is the value of Data?
7. How will you creating vectors? Give an example.
8. What is meant by data frames?
9. What is meant by lazy evaluation?
10. What do you mean by Rprof()?

PART-B (5 X 5 =25)

ANSWER ALL QUESTION

- 11.a) Explain about classification of Data Mining systems.
(or)
b) Elucidate about Mining Multilevel Association rules.
- 12.a) Describe Agglomerative and Divisive Hierarchical Clustering.
(or)
b) Elucidate about the data mining for the Telecommunication.
- 13.a) Explain about the description of Big Data.
(or)
b) Discuss Big Data Analytics methodology.
- 14.a) What is file connection? How will you reading lines of a text file?
(or)
b) Describe about vectorized operations.

- 15.a. Illustrate if-else statement in R programming.

(or)

- b. Explain the following debugging tools in R: (i) traceback() (ii) recover()

PART - C (3 X 10 =30)

ANSWER ANY THREE QUESTIONS:

16. Explain about Data Mining functionalities in detail.
17. Elucidate briefly about constraint-based cluster analysis.
18. Summarize Architecture, Framework and Tools in Big Data Analytics.
19. Explain the following in dplyr Package:
(i) select() function [3 mark]
(ii) filter() function [3 mark]
(iii) mutate() function [4mark]
20. Explain about the looping on the command line in R programming.

For Candidates Admitted From 2015- 2018

2015-18 MCS 25E

ROLL NO.....

M.Sc. DEGREE EXAMINATIONS, APRIL 2019

SEMESTER - II COMPUTER SCIENCE

ELECTIVE : PRINCIPLES OF COMPILER DESIGN

Time: 3 Hrs

Max. Marks: 75

PART - A (10 X 2 = 20)

ANSWER ALL THE QUESTIONS

1. Write the compiler construction tools.
2. What is the role of lexical analyzer?
3. What is meant by ambiguous grammar?
4. Define: Handle.
5. List the different representations of Three address statements.
6. State the different types of LR Parsing methods.
7. Draw the syntax tree for 'b - 5 + c'.
8. List the different representations of three address statements.
9. List the data structures used in symbol table.
10. What are the characteristics of code optimization?

PART-B (5 X 5 =25)

ANSWER ALL THE QUESTIONS

11. a. Write the Procedure for minimizing the number of states of a DFA.
(or)
b. Describe the non- deterministic and deterministic finite automata.
12. a. What are the difficulties with top- down parser?
(or)
b. Describe the head of predicative parser with an example.
13. a. Write the algorithm for constructing SLR parsing Table.
(or)
b. Construct canonical LR(I) Parsing table for the following
 $S \rightarrow CC; C \rightarrow CC; C \rightarrow D$
14. a. Describe the concept of postfix notation with an example.

(or)

- b. Explain the method of Translating Boolean expressions.
15. a. What are the issues with design of code generator?

(or)

- b. What is DAG?

PART-C (3 X 10=30)

ANSWER ANY THREE QUESTIONS

16. Explain the Phases of a compiler.
17. Discuss the shift Reduce parsing mechanism with an example.
18. Explain the LR parsing algorithm.
19. a. What are the types of three address statements?
b. Explain its implementations.
20. Explain the concept of Code - Optimization.

For Candidates Admitted From 2018

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M.SC. DEGREE EXAMINATIONS, APRIL 2019

SEMESTER - II COMPUTER SCIENCE

SOFT COMPUTING

Time: 3 Hrs

Max. Marks: 75

PART - A (10 X 2 = 20)

ANSWER ALL THE QUESTIONS

1. What is Artificial Neural Network?
2. List out five basic types of Neuron Connection Architecture.
3. What is Perception Network?
4. What is meant by LVQ?
5. What is fuzzification?
6. What do you mean by fuzzy measures?
7. List out the constraints in Genetic Algorithm.
8. What are the advantages of Genetic Algorithm?
9. What is meant by Genetic Neuro-Hybrid Systems?
10. What do you mean by image fusion?

PART-B (5 X 5 =25 MARKS)

ANSWER ALL THE QUESTIONS

- 11.a) Explain about evolution of Neural Networks.
(or)
b) Elucidate about tolerance and equivalence relations.
- 12.a) Describe about linear separability in detail.
(or)
b) Elucidate about the data multiple adaptive linear neurons.
- 13.a) Explain about the features of the membership functions.
(or)
b) Discuss about fuzzy propositions in detail.
- 14.a) Illustrate mutation operations in Genetic Algorithm.
(or)
b) Describe about characteristic of Genetic Programming.

- 15.a) Illustrate the classifications of Neuro-Fuzzy Hybrid Systems.

(or)

- b) Explain optimization of travelling salesman problem using Genetic Algorithm Approach.

PART-C (3 X 10 =30)

ANSWER ANY THREE QUESTIONS

16. Explain about learning types in detail.
17. With neat architecture, explain the training algorithm of Kohonen self-organizing Feature maps.
18. Discuss about fuzzy reasoning in detail.
19. Explain the crossover operators in Genetic Algorithm.
20. Explain about the Genetic Fuzzy Hybrid and Fuzzy Genetic Hybrid Systems.
