11534(New)

B.Sc V Semester Degree Examination, Oct./Nov. - 2018

COMPUTER SCIENCE

Data Base Management System

Paper - B.Sc 503 CS 5.1

(New)

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

ALL sections are compulsory.

PART - A

Answer any **TEN** of the following. **(10×2=20)**

1. What is an entity?
2. What is Data Base?
3. Explain DML and DDL.
4. Define Domain.
5. What is Key?
6. Name any two Data types in SQL.
7. Expand ACID.
8. What is SQL?
9. Define functional dependency.
10. Write the syntax for update command.
11. Write any four advantages of DBMS.
12. Define Tuple.

PART - B

Answer any **SIX** of the following: **(6×5=30)**

1. What is normalization? Explain 1 NF.
2. Explain any two actors on the scene.

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3. Explain three Schema Architecture of DBMS.
4. What is Attribute and explain its types?
5. Explain ACID properties.
6. Explain create and alter command with syntax.
7. Explain various mapping cardinality ratio for Binary Relationship.
8. What is ER diagram? Explain ER diagram notations.

PART - C

Answer any **THREE** of the following: **(3×10=30)**

1. Explain the characteristics of Data Base approach.
2. Write various DML statements in SQL with examples.
3. Create a table Employee having attributes Emp-no, Emp-name, Salary, Date of Birth, Designation and use the constraints primary key and Date and varchar 2.
   a) Insert 5 Records in to a table Employee.
   b) Delete any one tuple in the table Employee.
4. What is lock? Describe different types of lock for control of transaction.
5. Explain following relational algebra operations with example
   a) Select.
   b) Projection.
   c) Cartesian (or) Cross.

11534(New)

B.Sc. V - Semester Degree Examination, Oct./Nov. - 2019

COMPUTER SCIENCE

Data Base Management System

Paper : CS-5.1

(New)

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates: All Sections are compulsory.

SECTION-A

I. Answer any **TEN** of the following: **(10×2=20)**

1) Define DBMS.

2) What is Primary Key?

3) What is physical Data Independence?

4) Expand ACID.

5) List the different types of attributes?

6) What is SQL?

7) Define functional Dependency?

8) What is Record?

9) What is Relational Data Model?

10) Define Entity Set.

11) List any four examples of Database applications.

12) Write the Syntax for Drop Command.

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SECTION-B

II. Answer any **SIX** of the following: **(6×5=30)**

1) What is Normalisation? Explain 1NF.
2) What is E-R diagram? Explain E-R diagram Notation.
3) Explain any two factors on the Scene?
4) Explain Insert and Delete commands with example.
5) Explain Hierarchical Data Models with an example.
6) Explain different types of Key.
7) Explain ACID properties.
8) Explain the Implication of Database approach.

SECTION-C

III. Answer any **THREE** of the following: **(3×10=30)**

1) Explain the characteristics of Database approach.
2) Explain DML statements in SOL with example.
3) Explain the following relational algebriac operations with examples.
   a) Selut
   b) Project
   c) Carterian product.
4) What is Database Interface and explain it types?
5) Explain types of relationship constraint and explain cardinality ratio with examples.

27534(New)

B.Sc. V Semester Degree Examination, March - 2021

COMPUTER SCIENCE

Data Structure Using C

Paper : (5.1) CS

(New)

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

All Sections are compulsory.

SECTION-A

Answer any **Ten** of the following. **(10×2=20)**

1. Define structure.
2. Define Array.
3. Define Queue.
4. Define sorting.
5. Define pointer to pointer.
6. What is the use of calloc () function?
7. Define Node.
8. Define prefix Expression.
9. What is the use of fopen () function?
10. Define primitive Data structure.
11. Define linked list.
12. Expand LIFO.

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SECTION-B

Answer any **Six** of the following. **(6×5=30)**

1. Write a short note on Dynamic Memory Allocation.
2. Write a C program to find 'n' Fibonacci series using Recursion.
3. Write a function to insert an element at rear end of simple Queue.
4. Explain Binary search.
5. Explain pointer and Arrays concept.
6. Explain any one operations on single linked list.
7. Explain the operations on primitive Data structure.
8. Explain prefix and Infix Expression.

SECTION-C

Answer any **Three** of the following. **(3×10=30)**

1. Explain double linked list.
2. Explain the operations on stack.
3. Explain Double Ended Queue.
4. Explain Merge Sort.
5. Write a program to search an element in an array using sequential search.

27534

B.Sc. V Semester Degree Examination, February/March 2022
COMPUTER SCIENCE
Paper – I : 5.1 : Data Structure Using C (New)

Time : 3 Hours Max. Marks : 80

***Instruction** : **All** Sections are **compulsory**.*

SECTION – A

I. Answer **any ten** of the following : **(10×2=20)**

1) What is dynamic memory allocation ?
2) What is File in C ?
3) Define pointer.
4) What is sorting ?
5) Define pointer to pointer.
6) What is the use of fclose( ) function ?
7) List the operations performed on queue.
8) Define node.
9) What is double ended queue ?
10) What is binary search ?
11) What are the components of linked list ?
12) Define FIFO.

SECTION – B

II. Answer **any six** of the following : **(6×5=30)**

13) Explain the classification of data structure.
14) Explain pointer declaration and initialization with example.
15) Write a C program to find factorial of a number using recursion.

P.T.O.

16) Explain calloc ( ) and malloc ( ) functions.

17) Explain deletion operation of an element in a queue.

18) Explain Quick sort.

19) Give the technique of linear search.

20) List the advantages and disadvantages of linked list.

SECTION – C

III. Answer **any three** of the following : (3×10=30)

21) Explain binary search with example.

22) Write a C program to implement stack using arrays.

23) Explain the concepts of infix, prefix and postfix with example.

24) Explain double linked list.

25) Write a C program to implement Bubble sort.

27534

B.Sc. V Semester Degree Examination, February/March - 2023

COMPUTER SCIENCE

Data Structures Using C

Paper : BSC501CS

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates :

1) **Part-I:** Consists of **12** compulsory questions out of which **10** questions have to be answered. Each question carries **2** marks.
2) **Part-II:** Consists of **8** questions out of which **6** questions have to be answered. Each question carries **5** marks.
3) **Part-III:** Consists of **5** questions out of which **3** questions have to be answered. Each question carries **10** marks.

PART - I

I. Answer any **TEN** of the following. **(10×2=20)**

1. What is pointer?
2. What is file?
3. Define - prefix and postfix.
4. What are non-linear data structure?
5. What is Recursion?
6. Give an example for STACK.
7. What is sequential search?
8. What is queue?
9. What is merge sort?
10. What is a linked list?
11. What is sorting?
12. Mention different notations of arithmetic expressions.

PART - II

II. Answer any **SIX** of the following. **(6×5=30)**

1. Write a C-program to demonstrate dynamic memory allocation functions.
2. What is STACK? Explain PUSH and POP operations on STACK.
3. Explain binary search using demonstrative program.
4. What is a double linked list? Explain insertion of a node at any position in the list.

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5. Write a C-program for selection sorting technique.
6. Write a C-program to find GCD and LCM of two numbers using recursive function.
7. What are the advantages and disadvantages of a linked list?
8. Why STACK is called as LIFO data structure? Explain.

PART - III

III. Answer any **THREE** of the following. **(3×10=30)**

1. Explain pointers with function using demonstrative program.
2. Explain the classification of data structure.
3. Explain the applications of linked list.
4. Write a short note on operations on stack.
5. Explain different types of operations on linked list.

11535(New)

B.Sc. V Semester Degree Examination, Oct./Nov. - 2019

COMPUTER SCIENCE

Oops With C++

Paper : 5.2

(New)

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

1) Answer according to the instruction given.
2) All the Sections are compulsory.

SECTION-A

I. Answer any **TEN** of the following: **(10×2=20)**

1) Differentiate between Procedure Oriented and Object Oriented Programming.
2) Define Encapsulation?
3) List the different access Specifiers used in C++.
4) Write the Syntax of template class.
5) What are the Input and Output statement in C++ program?
6) What are virtual functions?
7) What do you mean by default Arguments?
8) What is the need of this pointer?
9) What are Inline functions?
10) What are Streams in C++?
11) What are Parameter passing mechanisms in C++?
12) What is tell g ( )?

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SECTION-B

II. Answer any **SIX** of the following: **(6×5=30)**

1) Explain the Structure of C++ program with an example.
2) Write a note on Friend function with an example program?
3) Differentiate between Constructor and Distructors.
4) Explain a function overloading with an example.
5) Write a C++ program to compare two strings using equal to operator.
6) Differentiate between Static and Dynamic binding.
7) Write a note on Virtual functions with example.
8) Explain on Stream Class hierarchy.

SECTION-C

III. Answer any **THREE** of the following: **(3×10=30)**

1) What is Inheritance? Explain the different forms of Inheritance.
2) Write a C++ program to add two matrices using operator overloading.
3) Explain an Exception handling with example.
4) Write a note on pure virtual functions.
5) Explain
   i) Polymorphism
   ii) Constructors with Parameters.

27535(New)

B.Sc. V Semester Degree Examination, March - 2021

COMPUTER SCIENCE

Programming in Java

Paper : 5.2 502 CS

(New)

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

All the Parts are compulsory.

PART-I

I. Answer any **Ten** of the following. **(10×2=20)**

1. Expand JVM and API.
2. List different Looping statement in Java.
3. What is Bytecode?
4. What is Java Token ? Give one example.
5. Write the syntax of class creation.
6. How do you declare array in Java.
7. Define Method Overriding.
8. What is an exception?
9. What is an Interface?
10. List the different types of Inheritance.
11. What is a File?
12. What is the First Name of Java?

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PART-II

II. Answer any **Six** of the following. **(6×5=30)**

1. Explain Java Development kit Environment.
2. Describe the structure of a Java program.
3. List the major difference between C and Java.
4. Explain constructor with example.
5. Explain any 3 Access specifiers in Java.
6. Briefly explain types of exceptions.
7. Write a Java program to illustrate Exception Handling.
8. Explain the creation of Interface in Java.

PART-III

III. Answer any **Three** of the following. **(3×10=30)**

1. Explain the features of Java.
2. Explain Decision making statements in Java.
3. Explain method overloading with simple program.
4. Explain the Life cycle of a thread.
5. Write a note on :
   a) Data Types
   b) String Methods.

27535

B.Sc. V Semester Degree Examination, Sept./Oct. 2022
COMPUTER SCIENCE (New)
Paper – 5.2 : Programming in Java

Time : 3 Hours Max. Marks : 80

Instruction : ***All*** *Parts are* ***compulsory.***

PART – I

Answer the following questions (**any ten**) : **(10×2=20)**

1. Define and expand JDK and JVM.
2. What is garbage collection ?
3. Define class and object.
4. Define wrapper class.
5. Define abstract method and class.
6. Define string tokenizer.
7. List different types of exceptions.
8. List java input/output statements.
9. What is method overriding ?
10. What do you mean by multithreading ?
11. What is thread ?
12. List the conditional statements of java.

PART – II

Answer **any six** of the following : **(6×5=30)**

1. Explain the history of java.
2. Differentiate between string buffer and string builder.

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3. Explain super class and sub class.
4. Write a note on user defined package.
5. What do you mean by up casting and down casting ? Explain in detail.
6. How do you create thread in java ?
7. Write a java program to find sum and average of n integers.
8. Write a java program to illustrate thread join.

PART – III

Answer **any three** of the following : **(3×10=30)**

1. Explain the features of java.
2. What do you mean by looping ? Explain the looping statements of java.
3. Write a java program to search an element using binary search.
4. Define array. Explain different types of array.
5. Explain inheritance in detail.

27535

B.Sc. V Semester Degree Examination, February/March - 2023

COMPUTER SCIENCE

Programming in Java

Paper : 5.2

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

All the Sections are Compulsory.

SECTION - A

I. Answer any TEN of the following. **(10×2=20)**

1. Expand API and AWT.
2. Define datatype. List different datatypes in Java.
3. Write the syntax to declares an array with examples.
4. What is method overloading?
5. How to access member of a class? Give one example.
6. What is static data?
7. Why we use Wrapper class in Java?
8. List any 3 types of Exceptions in Java.
9. Write any 3 classes of Java.util package.
10. Define file and stream.
11. What is multithreading in Java?
12. What is Inheritance? Write a syntax for Inheritance.

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SECTION - B

II. Answer any SIX of the following. **(6×5=30)**

1. Explain the structure of Java program.
2. Explain arrays and its methods in Java.
3. Explain the class and object creation in Java with examples.
4. What is Exception? Explain the syntax of Exception handling.
5. Define constructor. Write a Java program to illustrate constructor in Java.
6. Explain different types of Inheritance with example.
7. Write a Java program to find GCD and LCM of 2 Numbers.
8. Write the syntax and example for
   a) Accessing member of class
   b) Nested try block

SECTION - C

III. Answer any THREE of the following. **(3×10=30)**

1. Explain Java features in detail.
2. Write a Java program to illustrate method overloading.
3. Explain the Life cycle of a thread.
4. Describe the various forms of implementing interfaces with example.
5. Write a note on:
   a) JDK Environment
   b) Types of Exception