This question paper contains **3** printed pages]

ND—24—2023

FACULTY OF COMPUTER STUDIES

B.Sc. (CS) (Third Year) (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper–504B

(Basics of Linux)

(Wednesday, 6-12-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Assume suitable data, if necessary.

1. Attempt any *five* of the following : 15

(*a*) What are functions of Linux ?

(*b*) Explain cp, mv and ren commands.

(*c*) What is LILO ? Explain.

(*d*) Explain use of vi editor in Linux.

(*e*) Explain types of users in Linux.

(*f*) Explain PS and Kill commands.

(*g*) Explain memory handling commands in detail.

P.T.O.

2. Attempt any *three* of the following : 15

(*a*) Explain hardware requirements for Linux.

(*b*) Explain features of Linux.

(*c*) Explain chfn and finger commands.

(*d*) Explain any *four* vi movement commands.

(*e*) Explain top command in detail.

3. Attempt any *three* of the following : 15

(*a*) Explain passwd command with example.

(*b*) Explain grep in detail.

(*c*) Explain at & batch commands.

(*d*) What is desktop manager ? Explain.

(*e*) Explain Linux distributions.

4. Attempt any *three* of the following : 15

(*a*) Explain disk quotas.

(*b*) Explain write and wall commands.

(*c*) What are processes ? Explain PS command in detail.

(*d*) Explain printing commands in Linux.

(*e*) Explain wc and who commands.

5. Write short notes on (any *three*) : 15

(*a*) Login, Logout and Remote Login

(*b*) Head and tail commands

(*c*) /bin and /etc directories

(*d*) KDE and GNOME

(*e*) Su command.

This question paper contains **3** printed pages]

ND—28—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Reviseed Pattern)

COMPUTER SCIENCE

(Data Science)

(Thursday, 7-12-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

1. Attempt any *five* of the following : 15

(*a*) What is Data Science and its various applications ?

(*b*) What is Datamining and its classification ?

(*c*) What is Database and its explain ?

(*d*) Write difference between Datamining and Data Science.

(*e*) Explain use of statistics method and technique.

(*f*) Explain Data Analysis.

(*g*) Explain experimentation.

P.T.O.

2. Attempt any *three* of the following : 15

(*a*) Explain AI and ANN basic.

(*b*) Explain non-scalable and scalable data.

(*c*) Explain Artificial intelligence.

(*d*) Explain importance of Data Science in future.

(*e*) Explain managing Big data and different techniques.

3. Attempt any *three* of the following : 15

(*a*) Explain regression.

(*b*) Explain essential of algorithms and data structure.

(*c*) Explain evaluation.

(*d*) Explain optimization for data science.

(*e*) Explain Big data fundamental.

4. Attempt any *three* of the following : 15

(*a*) Explain project deployment tools.

(*b*) Explain data acquisition.

(*c*) Explain research methodology basics and its importance.

(*d*) Explain software engineering trends and techniques.

(*e*) Explain data science life cycle.

5. Write short notes on any *three* of the following : 15

(*a*) Data visualization

(*b*) Machine learning big data

(*c*) Parallel computing and algorithms

(*d*) Hadoop integration with R

(*e*) Data warehousing.

This question paper contains **3** printed pages]

ND—19—2023

FACULTY OF SCIENCE

B.Sc. (CS) (Third Year) (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

(Python)

(Tuesday, 5-12-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Write a short note on Python.

(*b*) Differentiate between List and tuples.

(*c*) Define Pickling in detail.

(*d*) What is Python Interpreter ? Explain in detail.

(*e*) Program to check whether a person is eligible to Vote or not.

(*f*) Program to find sum of all items in a Dictionary.

(*g*) Define functions and arguments with example.

P.T.O.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) What are the common built-in data types in Python.

(*b*) Write a program to print the largest of three numbers.

(*c*) Explain the data types in Python.

(*d*) Write a program to find the area of circle.

(*e*) Explain Dictionaries and sets collection in Python.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) What are the modules and packages in Python ?

(*b*) What are the CSV/Excel file in Python ?

(*c*) Write a program to create text file with a text "I am an IT professional".

(*d*) Explain exception handling concept with example.

(*e*) Write a program to sort the given list in ascending as well as descending order :

L1 = [58, 47, 99, 32, 18, 2, 46, 33, 18]

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain array and types of arrays with suitable example.

(*b*) Explain Inheritance and types of Inheritance in Python. How does inheritance work in Python ? Explain it with an example.

(*c*) Write a program to create a class 'Student' with member variable stu-ID, Stu_Name, Stu_marks.

(*d*) Explain Polymorphism in detail.

(*e*) Write and explain MySQL database query in Python.

5. Write short notes on any *three* of the following (**5** marks each) : 15

(*a*) Database connection in Python

(*b*) Web using flask

(*c*) Different loops in Python

(*d*) Mathematical functions and constants

(*e*) Exception Raising.

This question paper contains **3** printed pages]

ND—23—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc CS (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

(Software Testing)

(Wednesday, 6-12-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

(*iv*) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Explain McCall's five quality factors.

(*b*) Explain software quality assurance.

(*c*) What is system testing ?

P.T.O.

(*d*) Explain internal views of software testing.

(*e*) Explain in short security testing.

(*f*) Explain framework for product metrics.

(*g*) Explain bottom up approach.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain art of debugging.

(*b*) Explain top down approach in testing.

(*c*) Explain quality and security testing.

(*d*) Explain SQA plan.

(*e*) Explain validation testing in short.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain control structure testing.

(*b*) Explain user interface testing.

(*c*) Explain metrics for source code.

(*d*) Explain quality control in short.

(*e*) Explain software reliability.

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain unit testing.

(*b*) Explain black box testing.

(*c*) Explain overview of testing process.

(*d*) Explain metrics for design model.

(*e*) Explain ISO9126 quality factor.

5. Write short notes on any *three* of the following (**5** marks each) : 15

(*a*) Formal technical review

(*b*) Strategic approach to software testing

(*c*) Software testing fundamentals

(*d*) White box testing

(*e*) Content testing.

This question paper contains **3** printed pages]

ND—12—2023

FACULTY OF COMPUTER STUDIES

B.Sc. (CS) (Third Year) (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

BCS–501

(Windows Programming)

(Saturday, 2-12-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Assume suitable data, if required.

1. Attempt any *five* of the following (**3** marks each) : 15

(*a*) Explain advantages of ADO.Net.

(*b*) What is .NET ?

(*c*) Explain try and catch block.

(*d*) Explain ref and out keyword.

(*e*) Explain .Net frameworks types.

(*f*) Explain important classes used in windows programming.

(*g*) Explain intelligence features of Visual Studio IDE.

P.T.O.

2. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain .Net Architecture in detail.

(*b*) Explain difference between Java and C#.

(*c*) Explain array in C#. Net.

(*d*) Explain TextBox properties in detail.

(*e*) Explain form properties and event.

3. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Write a program for demonstration of finally block.

(*b*) Explain C# function.

(*c*) Explain ListBox control methods.

(*d*) What is delegate types of delegate ?

(*e*) Explain Dialog Boxes in C#.Net.

4. Attempt any *three* of the following (**5** marks each) : 15

(*a*) Explain concept of Indexers.

(*b*) Explain ArrayList class in C#.

(*c*) Explain connected data access.

(*d*) Explain creating and using interfaces.

(*e*) Explain CLR in detail.

5. Write short notes on any *three* of the following (**5** marks each) : 15

(*a*) Custom exception

(*b*) Namespace (DLL Library)

(*c*) Project types

(*d*) Custom events

(*e*) Dataset objects.