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GF—24—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper BCS-504-B

(Basics of Linux)

(Wednesday, 26-4-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three 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 OS.

(*b*) Explain history of Linux.

(*c*) Explain Unix.

P.T.O.

(*d*) Explain Boot Loaders.

(*e*) Explain Features of VI.

(*f*) Explain & DU Commands.

(*g*) Explain GNOME.

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

(*a*) Explain in detail Linux Standard Directories.

(*b*) Explain in detail Printing Files.

(*c*) Explain in detail Free Command and Top Utility.

(*d*) Explain in detail types of Process and PS Command.

(*e*) Explain in detail GUI with KDE.

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

(*a*) Explain in detail history and Development of Linux.

(*b*) Explain in detail Linux and Windows.

(*c*) Difference between Linux and Unix.

(*d*) Explain in detail Locating Unused Files.

(*e*) Explain in detail Setting System Clock.

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

(*a*) Explain in detail Communication Utilities.

(*b*) Explain in detail Additional Free Disk Space.

(*c*) Explain in detail Hardware Requirement for Linux.

(*d*) Explain in detail File Processing Commands.

(*e*) Explain in detail Input Mode.

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

(*a*) login

(*b*) rc.sysinit & rc

(*c*) Remote Login

(*d*) Sending Files to Printer

(*e*) Distribution of Linux.

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GF—32—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

(Data Science)

(Friday, 28-4-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three Hours *Maximum Marks*—75

N.B. :— (*i*) *All* questions carry equal marks.

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

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

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

(*b*) Explain descriptive and inferential statistics.

(*c*) Explain data analysis and its Hypothesis techniques.

(*d*) Explain predictive analysis and segmentation using clustering.

(*e*) Explain importance of data science in future.

(*f*) Explain project deployment tools.

(*g*) Explain data computational techniques conventional and modern.

P.T.O.

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

(*a*) Explain artificial intelligence.

(*b*) Explain machine learning big data.

(*c*) Explain data scientist roles and responsibilities.

(*d*) Explain data mining.

(*e*) Explain data warehousing.

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

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

(*b*) Explain use of statistics methods and technique.

(*c*) Write difference between data mining and data science.

(*d*) Explain regression.

(*e*) Explain data visualization.

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

(*a*) Explain data structure.

(*b*) Explain research methodology basics and importance.

(*c*) Explain optimization of data science.

(*d*) Explain basic introduction to data science.

(*e*) Explain software engineering trends and technique.

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

(*a*) Classification

(*b*) Big data fundamentals

(*c*) Parallel computing and algorithms

(*d*) Data acquisition and data science life cycle

(*e*) Experimentation.

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

GF—15—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper CS-502

(Python)

(Monday, 24-4-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three Hours *Maximum Marks*—75

N.B. :— (*i*) Attempt *all* questions.

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

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

(*a*) Explain the step of installing Python on windows.

(*b*) Write a program in Python to find the sum of natural numbers.

(*c*) Explain mathematical function with examples.

(*d*) Write a program in Python to print the element of an array in reverse order.

(*e*) Explain web using flask.

(*f*) Write a Python program to convert a list to string method.

(*g*) Explain error processing in Python.

P.T.O.

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

(*a*) Explain features of Python.

(*b*) Write a program in Python function to display calander.

(*c*) Explain data types in Python.

(*d*) Differentiate between list and tuple.

(*e*) Explain loops with example.

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

(*a*) What is Modules ? Explain packages ?

(*b*) Define function. Explain function and arguments.

(*c*) Explain the concept of CSU/Excel file in Python.

(*d*) Write a program in Python to demonstrate the use of default argument.

(*e*) How to create dictionary in Python ?

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

(*a*) What is inheritance ? Explain types of inheritance.

(*b*) Explain data structure in array.

(*c*) Write a program in Python to check whether a number is even or not.

(*d*) Explain the concept of mysql for Python.

(*e*) Explain variable with an example.

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

(*a*) Polymorphism

(*b*) Correcting with database

(*c*) OOPs

(*d*) Exception Raising

(*e*) Set.

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

GF—23—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

(Software Testing)

(Wednesday, 26-4-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three 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 concept of quality.

(*b*) Explain software reliability.

(*c*) Explain cost of quality.

P.T.O.

(*d*) Explain black box testing.

(*e*) Explain validation testing.

(*f*) Explain quality control.

(*g*) Explain basic path testing.

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

(*a*) Explain McCall's quality factors in detail.

(*b*) Explain an overview of the Testing Process.

(*c*) Explain software review and its types.

(*d*) Explain control structural testing.

(*e*) Explain testing concepts for WebApps.

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

(*a*) Explain validation testing.

(*b*) Explain internal and external views of testing.

(*c*) Describe software quality assurance plan.

(*d*) Explain navigation testing.

(*e*) Explain targeted quality factors.

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

(*a*) Explain a framework for product metrics.

(*b*) Explain strategic approach to software testing.

(*c*) Explain formal technical reviews.

(*d*) Explain system testing in detail.

(*e*) Describe software testing fundamentals in detail.

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

(*a*) Write a note on metrics for requirements mode.

(*b*) Write a note on art of debugging.

(*c*) Write a note on user interface testing.

(*d*) Write a note on ISO9126 quality factors.

(*e*) Write a note on content testing.

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GF—06—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper AF-06

(Windows Programming)

(Thursday, 20-4-2023) **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three 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 visual studio and IDE components in detail.

(*b*) Explain intelligense in Visual Studio IDE.

(*c*) Explain textbox and label control with properties.

(*d*) Explain String class and its methods.

(*e*) Explain properties in detail.

(*f*) Explain finally block in detail.

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

P.T.O.

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

(*a*) Explain Common Language Runtime (CLR) in detail.

(*b*) Explain .Net architecture in detail.

(*c*) Explain Listbox and Combobox controls.

(*d*) Explain Array and Array List class.

(*e*) Explain indexers with example.

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

(*a*) What is interface ? Explain creating and using interfaces.

(*b*) What is exception handling ? Explain in detail.

(*c*) Explain how to connect SQL Server using ADO.Net.

(*d*) Explain jagged array in detail.

(*e*) Explain disconnected data access in detail.

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

(*a*) Explain creating and using name spaces.

(*b*) Explain different types of dialog boxes in detail.

(*c*) Explain Out parameter in detail.

(*d*) Explain multicast delegates with example.

(*e*) Explain how to retrieve and update data stored in database server.

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

(*a*) Explain Common Type System (CTS).

(*b*) Explain call by value in detail.

(*c*) Explain different project types.

(*d*) Explain differences between Java and C#.

(*e*) Explain button, check boxes and radio button.