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VD—24—2024

FACULTY OF COMPUTER STUDIES

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

NOVEMBER/DECEMBER, 2024

COMPUTER SCIENCE

Paper BCS-504

(Basics of Linux)

(Tuesday, 3-12-2024) **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three 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*) Explain features of Linux.

(*b*) Explain who and whoami commands.

(*c*) Write a note on GNOME.

(*d*) Explain shells in Linux.

P.T.O.

(*e*) Write a note on text editors.

(*f*) Explain/var directory.

(*g*) Explain Mail command.

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

(*a*) Explain installation steps of Linux.

(*b*) Explain user management.

(*c*) Explain grep command.

(*d*) Explain features of vi.

(*e*) Explain creating groups in Linux.

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

(*a*) Explain free and du commands.

(*b*) Explain printing commands in Linux.

(*c*) Explain at and batch commands.

(*d*) Explain zip and unzip commands.

(*e*) Explain KDE in detail.

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

(*a*) Explain cat and cp commands.

(*b*) Explain difference between Linux and Windows O.S.

(*c*) Explain Linux distributions.

(*d*) Explain inittab command.

(*e*) Explain passwd commands.

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

(*a*) Input mode of vi

(*b*) Remote login

(*c*) Advantages of Linux

(*d*) rc.sysinit.rc

(*e*) Cal and date commands.

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VD—28—2024

FACULTY OF SCIENCE AND TECHNOLOGY

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

NOVEMBER/DECEMBER, 2024

(CBCS/Revised Pattern)

COMPUTER SCIENCE

(Data Science)

(Wednesday, 4-12-2024) **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 different roles of data scientist.

(*b*) Differentiate structured and unstructured data.

P.T.O.

(*c*) Explain hypothesis technique in detail.

(*d*) Explain machine learning.

(*e*) Explain Research Methodology.

(*f*) Explain role of Data Science in future.

(*g*) Explain programming paradigm.

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

(*a*) What is data acquisition ?

(*b*) What is data structure ? Explain importance of data structure.

(*c*) Explain descriptive and inferential statistics.

(*d*) Explain statistical technique in detail.

(*e*) What is ANN ? Explain ANN in detail.

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

(*a*) Explain importance of Research Methodology.

(*b*) Explain project deployment tools.

(*c*) Explain the fundamental of big data.

(*d*) What is data warehouse ? Explain in detail.

(*e*) Explain scalable and non-scalable data in detail.

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

(*a*) Explain Data Mining *Vs*. Data Science.

(*b*) Explain Data Science life cycle.

(*c*) Explain the parallel computing.

(*d*) Explain Data Science applications.

(*e*) Explain big data management techniques.

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

(*a*) Hadoop integration with R

(*b*) Software Engineering trends

(*c*) Machine learning

(*d*) Data acquisition

(*e*) Roles and responsibilities of data scientist.

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VD—19—2024

FACULTY OF COMPUTER SCIENCE

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

NOVEMBER/DECEMBER, 2024

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper BCS-502

(Python)

(Monday, 2-12-2024) **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 necessary.

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

(*a*) Python Interpreter

(*b*) Polymorphism

(*c*) Error Processing

P.T.O.

(*d*) Packages

(*e*) Functions

(*f*) Dictionary

(*g*) List.

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

(*a*) Explain features of Python.

(*b*) Explain how to install Python on windows.

(*c*) Explain variables in brief.

(*d*) Explain exception handling in detail.

(*e*) Define classes.

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

(*a*) Define Operators.

(*b*) Explain Tuple and Set in detail.

(*c*) Write a program in Python to check the number is Even or Odd.

(*d*) Explain Casting data types in detail.

(*e*) Explain data structure in brief.

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

(*a*) Explain standard modules.

(*b*) Define inheritance with their types.

(*c*) Write a program in Python to check the string is palindrome or not.

(*d*) Define function and arguments in detail.

(*e*) Explain reading and writing files in Python.

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

(*a*) Explain Math functions in detail.

(*b*) Explain exception raising.

(*c*) Explain Programming types in Python.

(*d*) Explain Web using flask.

(*e*) Explain MySQL for Python.

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VD—23—2024

FACULTY OF SCIENCE AND TECHNOLOGY

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

NOVEMBER/DECEMBER, 2024

(CBCS/Revised Pattern)

COMPUTER APPLICATION

Paper BCS-504A

(Software Testing)

Tuesday, 3-12-2024) **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three Hours *Maximum Marks*—75

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

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

(*iii*) 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*) What is Software Quality ? Explain.

(*b*) Explain Testing Process of Web Apps.

P.T.O.

(*c*) What is Cost of Quality ? Explain

(*d*) What is Integration Testing ?

(*e*) Discuss Software Testing Fundamentals.

(*f*) What is Navigation Testing ?

(*g*) Explain Metrics for source code.

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

(*a*) What is Targeted Quality Factors ? Explain.

(*b*) Explain Quality Control and Quality Assurance.

(*c*) Discuss the concept of Software Reliability.

(*d*) Explain Unit Testing in detail.

(*e*) What is White-Box Testing ? Explain.

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

(*a*) Explain in detail Control Structural Testing.

(*b*) Explain in brief Content Testing.

(*c*) Describe the framework for Product Metrics.

(*d*) Explain ISO 9126 Quality Factors.

(*e*) What is Software Reviews ? Explain.

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

(*a*) Explain System Testing.

(*b*) Describe the concept of Art of Debugging.

(*c*) What is Security Testing ? Describe in brief.

(*d*) Explain Metrics for the requirements mode.

(*e*) Discuss the concept Quality and Security.

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

(*a*) Software Quality Assurance

(*b*) A Strategic Approach to Software Testing

(*c*) Basic Path Testing

(*d*) Black Box Testing

(*e*) User interface Testing.

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VD—12—2024

FACULTY OF SCIENCE AND TECHNOLOGY

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

NOVEMBER/DECEMBER, 2024

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper BCS-501

(Windows Programming)

(Friday, 29-11-2024) **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 necessary.

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

(*a*) Explain the CLR.

(*b*) Explain the .Net Architecture.

(*c*) Explain the Array.

(*d*) Explain the advantages of ADO.Net.

P.T.O.

(*e*) Explain the .Net Technology.

(*f*) Explain the TextBox and Label Control.

(*g*) Explain the Project Types.

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

(*a*) Differentiate between Java vs C#.

(*b*) Explain in detail Customizing Windows Form.

(*c*) Explain in detail Radio Button with example.

(*d*) Explain in detail combobox control with example.

(*e*) Explain in detail Creating interface with example.

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

(*a*) Explain in detail Array list class methods.

(*b*) Explain in detail Checkbox with example.

(*c*) Explain in detail call by value with example.

(*d*) Explain in detail Multicast Delegates with example.

(*e*) Write an android application to demonstrate on TextBox and Button Control.

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

(*a*) Explain in detail call by reference with example.

(*b*) Explain in detail Out parameter with example.

(*c*) Explain in detail indexers with example.

(*d*) Explain in detail Delegates with example.

(*e*) Explain in detail Properties with example.

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

(*a*) Explain in detail jagged array with example.

(*b*) Explain in detail StringBuffer class methods.

(*c*) Explain in detail Try and Catch Block.

(*d*) Explain in detail Customs events with example.

(*e*) Developing a simple ADO.NET based application.