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NI—08—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Sixth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

(BCA 602)

(Python)

(Friday, 01-12-2023) **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 features of Python.

(*b*) Explain defining classes in Python.

(*c*) Explain packages in Python.

(*d*) What is exception in Python ?

P.T.O.

(*e*) Explain interpreter.

(*f*) Explain concept of sets.

(*g*) Explain connecting with databases.

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

(*a*) Explain Python data types with example.

(*b*) Explain Math module in brief.

(*c*) Explain exception roles.

(*d*) Explain concept of list with example.

(*e*) Explain graphical user interface in Python.

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

(*a*) Explain input and output statments in Python with example.

(*b*) Explain difference between Python and OOPs.

(*c*) Explain concept of inheritance with example.

(*d*) Explain exception handling in Python with suitable example.

(*e*) Explain tuples with example.

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

(*a*) Explain polymorphism in Python with example.

(*b*) Explain string operations in Python.

(*c*) Explain concept of looping with example.

(*d*) Explain tkinter module.

(*e*) Explain dictionaries with example.

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

(*a*) Defining and calling functions passing arguments to functions

(*b*) Variable with example

(*c*) Forming a query in MySQL

(*d*) Procedure for creating label, text, button in brief

(*e*) Decision control structure with example.

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NI—02—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Third Year) (Sixth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

Paper BCA-601

(Software Engineering)

(Wednesday, 29-11-2023) **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.

1. Write short notes on the following (any *five*) : 15

(*a*) Pseudo Code

(*b*) Output Design

(*c*) Data Dictionary

(*d*) Software Development Life Cycle (SDLC)

(*e*) Concept of Software Engineering

(*f*) Decision Tree

(*g*) Software Testing.

P.T.O.

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

(*a*) Describe the concept of software myths and reality.

(*b*) Describe the Waterfall model with suitable diagram.

(*c*) Explain Prototyping Model.

(*d*) Explain the various software applications in detail.

(*e*) Explain elements of data dictionary in detail.

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

(*a*) Explain the incremental process model.

(*b*) Explain black box testing.

(*c*) Explain Data Flow Diagrams (DFD).

(*d*) Explain the Verification and Validation process in testing.

(*e*) Describe the software crisis and horizon in short.

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

(*a*) Explain White-Box Testing.

(*b*) Explain the Spiral Model.

(*c*) Explain activities of SDLC in detail.

(*d*) Explain Incremental Process Models.

(*e*) Explain advantages of Data Dictionary in detail.

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

(*a*) Explain the Unit Testing.

(*b*) Define software engineering. Explain the software evolution in detail.

(*c*) Explain the software characteristics in detail.

(*d*) How the decision tree and decision table are useful in design tools ?

(*e*) Explain the Generic Process Model in detail.