UNIVERSITY OF NORTH BENGAL

BCA Honours 4th Semester Examination, 2021

SEC1 (P2)-BACHELOR OF COMPUTER APPLICATION (45)

Full Marks: 60

ASSIGNMENT

The figures in the margin indicate full marks.

The question paper contains SEC45:E1 and SEC45:E2 and SEC45:E3
The candidates are required to answer any *one* from *three* courses.
Candidates should mention it clearly on the Answer Book.

SEC45:E1

ANDROID PROGRAMMING

Answer any *three* questions from the following　　　　20×3 = 60

1. Describe Android application Architecture. 　　20

2. Briefly discuss about inheritance. Polymorphism, Interface , Abstract class with suitable examples. 　　20

3. (a) Discuss about different Android Development Tools. 　　10

　 (b) Discuss about Overloading and Overriding with examples. 　　10

4. Briefly discuss the history of android and evolution of versions from android 1.0 to android 10. 　　20

5. Explain the types of android application. Create any small application for android. Explain the steps involved. 　　20

SEC45:E2

PROGRAMMING IN MATLAB

Answer any *three* questions from the following　　　　20×3 = 60

1. Explain Machine code. Draw the diagram of Software hierarchy. Discuss each node of the hierarchy in detail. 　　20

2.	Discuss Graph Plots by giving examples. Explain built in functions with help of examples.	10+10
3.	Write a program in MATLAB to add two 3X3 order matrix. Write a program in MATLAB to find out the transpose of a matrix.	10+10
4.	Discuss expressions, variables, assignment statements and arrays in MATLAB.	20
5.	How do you convert octal numbers into their hexadecimal equivalent and vice-versa. Explain by giving examples.	20

SEC45:E3

VB.NET PROGRAMMING

Answer any *three* questions from the following   20×3 = 60

1. (a)	Explain Common Language Runtime (CLR) in detail.	10
(b)	Discuss the differences between Interface-based polymorphism and Inheritance based polymorphism.	10
2. (a)	Discuss the garbage collection in VB.NET.	10
(b)	Write a program in VB. NET to implement RGB colour combination using scroll bars.	10
3. (a)	Explain the while loop syntax in VB. NET with an example.	10
(b)	Discuss the architectural framework of NET.	10
4. (a)	Explain the structure of ADO.NET.	10
(b)	Describe error handling mechanisms in VB. NET.	10
5. (a)	What is MS-DL? Discuss the characteristics of .NET framework.	15
(b)	What is class library with reference to .NET framework?	5

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