

CBCS SCHEME

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18AI63

Sixth Semester B.E. Degree Examination, June/July 2024

Java for Mobile Applications

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What are enumerations? With example code, demonstrate how varieties of mangoes can be represented through enumeration. (08 Marks)
- b. Justify why wrapper classes are required when compared to primitive types. (07 Marks)
- c. Write a Java program to demonstrate use of Values() and ValueOf() methods. (05 Marks)

OR

- 2 a. Demonstrate with a Java code, how Autoboxing / Unboxing occurs in Expressions. (10 Marks)
- b. How default values can be used in Annotations? Explain with an example of Java code. (06 Marks)
- c. How errors can be prevented using Autoboxing / Unboxing? (04 Marks)

Module-2

- 3 a. List and explain the Collection Framework in developing generic Java programs. (10 Marks)
- b. Briefly discuss the various Collection Framework interfaces with the methods declared in it. (10 Marks)

OR

- 4 a. Develop Phone Contact application by using Map class. (10 Marks)
- b. With an example code, discuss the various algorithms supported in Collections. (10 Marks)

Module-3

- 5 a. Write a Java program to instantiate different constructors supported by String Class. (06 Marks)
- b. Demonstrate the following string operations:
i) String literals ii) String concatenation iii) String conversion
iv) String concatenation with other data types. (08 Marks)
- c. How following methods can be used in character extraction?
i) charAT() ii) getChar() iii) getBytes iv) toCharArray() (06 Marks)

OR

- 6 a. How strings can be compared with the following methods?
i) equals and equalsIgnoreCase() ii) regionMatches
iii) start with endsWith() (10 Marks)
- b. With relevant examples explain String Buffer methods.
i) ensureCapacity() ii) setLength() iii) getChar()
iv) append() v) insert() (10 Marks)

Module-4

- 7 a. Explain the Architecture of Android with a neat diagram. (08 Marks)
- b. What is an Activity? With a neat diagram explain the Activity life cycle. (06 Marks)
- c. What are intents? With a Java code demonstrate how intents can be used to
i) Switch between activities. ii) To start an Activity for result. (06 Marks)

OR

- 8 a. Which are the states, a fragment goes through after its creation. List the different methods that are called as fragment transits from one state to another. (10 Marks)
- b. Write a Java code to
- i) Pass data using Intent object ii) Display a Progress dialog. (10 Marks)

Module-5

- 9 a. What are the different layouts available in design user interface of an Android application? Justify the use of each layout. (10 Marks)
- b. Write a Java code to build a QUIZ application by using RadioGroup class. Consider a suitable view for designing a front end. (10 Marks)

OR

- 10 a. With a relevant code snippet, explain the use of following views:
i) Checkbox ii) Toggle Button iii) ImageButton iv) EditText (10 Marks)
- b. Demonstrate how CRUD operations can be performed programmatically in Android applications. (10 Marks)

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