

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code

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Sixth Semester B.E. Degree Examinations, September/October 2024

JAVA FOR MOBILE APPLICATION DEVELOPMENT**(Artificial Intelligence & Machine Learning)**

Duration: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions choosing ONE full Question from each Module.

2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTLCO:PI)</u>
<u>Module-1</u>			
1.	a. Explain values() and valueOf() methods of enumeration with an example program.	10	(2:1:1.2.1)
	b. Explain the following methods of Java.lang.Enum with example program. (i) ordinal() (ii) compareTo() (iii) equals()	10	(3:1:1.2.1)
(OR)			
2.	a. What is auto-boxing? Write a Java program that demonstrates auto-boxing/un-boxing occurs inside expressions.	10	(2:1:1.2.1)
	b. What are annotations? Explain built-in annotations with an example.	10	(3:1:1.2.1)
<u>Module-2</u>			
3.	a. What are Java strings? Write a Java program that demonstrates any four constructors of the string class.	10	(2:2:1.2.1)
	b. Illustrate the following String Buffer methods with an example: (i) insert() (ii) append() (iii) replace() (iv) substring() (v) ensureCapacity()	10	(3:2:1.2.1)
(OR)			
4.	Explain additional String and StringBuffer methods with a suitable examples.	20	(3:2:1.2.1)
<u>Module-3</u>			
5.	a. Illustrate the architecture of Android with a neat diagram	10	(2:3:1.2.1)
	b. List and explain the features of Android.	10	(3:3:1.2.1)
(OR)			
6.	a. Explain and draw the Activity Life Cycle with an example.	10	(2:3:1.2.1)
	b. Implement a sample Android Activity and utilize various call back methods from the Activity lifecycle, including relevant code snippets, to illustrate how these methods manage the state of the Activity.	10	(3:3:1.2.1)

Module-4

7. a. Analyze and compare the following Android layouts. Provide examples for each layout: **10** **(2:4:1.2.1)**
(i) FrameLayout (ii) LinearLayout (Horizontal)
(iii) LinearLayout (Vertical) (iv) TableLayout (v) RelativeLayout
- b. Analyze the functionality and usage of the following views by including relevant code snippets: **10** **(3:4:1.2.1)**
(i) CheckBox (ii) EditText (iii) ImageButton
(iv) ToggleButton (v) RadioButton
- (OR)**
8. a. Analyze the process of implementing a SQLite database in an Android application with an example. **10** **(2:4:1.2.1)**
- b. Analyze how CRUD (Create, Read, Update, Delete) operations are performed programmatically in an Android application using SQLite. Demonstrate each operation with code snippets and discuss the impact of each operation on the database. **10** **(3:4:1.2.1)**

Module-5

9. Evaluate the effectiveness of different methods for sending SMS messages and emails programmatically in Android. Provide relevant code snippets for each method. **20** **(3:5:1.2.1)**
- (OR)**
- 10 a. Evaluate the effectiveness of different methods for programmatically zooming in or out on a map. Provide a code snippet that demonstrates how to implement zoom functionalities. **10** **(2:5:1.2.1)**
- b. Evaluate the role and impact of the Google Maps API components in developing a mobile application. **10** **(3:5:1.2.1)**
(i) CameraUpdateFactory (ii) GoogleMap
(iii) OnMapReadyCallback (iv) SupportMapFragment
(v) LatLng (vi) MarkerOptions

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