Faculty of Science

End Sem (Odd) Examination Dec-2022

BC3EC01 Programming in JAVA

Programme: B.Sc.   Branch/Specialisation: Computer Science
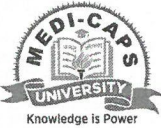
Duration: 3 Hrs.   **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1   i.   % operator is-   **1**
(a) Arithmetic (b) Relational (c) Bitwise (d) Logical

ii.   Is for each loop used to traverse arrays?   **1**
(a) True (b) False (c) Cant't say (d) None of these

iii.   When a class is final-   **1**
(a) We can't create objects of it
(b) We can't inherit it
(b) We can't have member variables in it
(d) All of these

iv.   Private members can be accessible in the-   **1**
(a) Whole Package (b) Only in the class
(c) Both (a) and (b) (d) None of these

v.   Multithreading is more efficient than multitasking-   **1**
(a) True (b) False (c) Cant't say (d) None of these

vi.   Parent class of Exception class is-   **1**
(a) Throwable (b) ArithmeticException
(c) NullPointer (d) None of these

vii.   X – AXIS and Y- AXIS exist in BoxLayout-   **1**
(a) True (b) False (c) Cant't say (d) None of these

viii.   Control that is not used for picking a specific value-   **1**
(a) RadioButton (b) CheckBox
(c) Menu (d) Frame

P.T.O.

ix.   Parent class of JLabel is-   **1**
(a) JContainer (b) JComponent
(c) Window (d) None of these

x.   JButton resides in the package-   **1**
(a) javax.swing (b) java.util
(c) java.lang (d) None of these

Q.2   i.   Explain two jump statements with example.   **4**

ii.   Write a program to check the number is Armstrong or not.   **6**

OR   iii.   Write a program to find maximum between three numbers using logical operators.   **6**

Q.3   i.   Explain inheritance and its types.   **4**

ii.   Write a program to search an element in an array.   **6**

OR   iii.   Write a program to demonstrate class and object.   **6**

Q.4   i.   Explain life cycle of a thread with diagram.   **3**

ii.   Write a complete java program for thread implements runnable interface.   **7**

OR   iii.   Write a program to create your own exception.   **7**

Q.5   i.   Explain the use of label, textarea, button and checkbox in brief.   **4**

ii.   Explain any three layouts with example.   **6**

OR   iii.   Write a program of flowlayout. Design output screen also.   **6**

Q.6   Attempt any two:

i.   Explain event delegation model with diagram.   **5**

ii.   Write down five differences of AWT and swing.   **5**

iii.   Write a program to show and hide the buttons alternatively.   **5**

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Scheme of Marking

		Faculty of Science	
		End Sem (Odd) Examination Dec-2022	
		Programming in JAVA (T) - BC3EC01 (T)	
	Programme: B.Sc.		Branch/Specialisation:

Note: The Paper Setter should provide the answer wise splitting of the marks in the scheme below.

Q.1	i)	% operator is (a) Arithmetic	1
	ii)	Is for each loop used to traverse arrays? (a) True	1
	iii)	When a class is final (b) We can't inherit it	1
	iv)	Private members can be accessible in the (b) Only in the class	1
	v)	Multithreading is more efficient than multitasking (a) True	1
	vi)	Parent class of Exception class is (a) Throwable	1
	vii)	X – AXIS and Y- AXIS exist in BoxLayout (a) True	1
	viii)	Control that is not used for picking a specific value. (d) Frame	1
	ix)	Parent class of JLabel is (b) JComponent	1
	x)	JButton resides in the package (a) javax.swing	1
Q.2	i.	Explain two jump statements with example. 1 Jump statement – 2 Marks – 2* 2 Marks – 4 Marks	4
	ii.	Write a program to check the number is Armstrong or not. Input – 1 Mark Main Logic using loop– 4 Marks Output – 1 Mark	6
	iii.	Write a program to find maximum between 3 numbers using logical operators.	6

		Input – 1 Mark Main Logic using logical operator– 4 Marks Output – 1 Mark	
Q.3	i.	Explain inheritance and its types. Inheritance – 1 Mark Types – 3 Marks	4
	ii.	Write a program to search an element in an array. Array Declaration and input – 2 Marks Searching using loop – 3 Marks Element found or not – 1 Mark	6
OR	iii.	Write a program to demonstrate class and object. Class does not have main method - 3 Marks Class have main method - 3 Marks	6
Q.4	i.	Explain life cycle of a thread with diagram. Explaination – 1.5 Marks Diagram – 1.5 Marks	3
	ii.	Write a complete java program for thread implements runnable interface. Program – 7 Marks	7
OR	iii.	Write a program to create your own exception. Program – 7 Marks	7
Q.5	i.	Explain the use of Label, TextArea, Button and CheckBox in brief. Label – 1 Mark TextArea – 1 Mark Button – 1 Mark CheckBox – 1 Mark	4
	ii.	Explain any 3 layouts with example. 1 Layout – 2 Marks – 3* 2 Marks – 6 Marks	6
OR	iii.	Write a program of FlowLayout. Design Output Screen also. Program -4 Marks Output – 2 Marks	6
Q.6		Attempt any two:	
	i.	Explain Event Delegation Model with diagram. Event Delegation Model – 2.5 Marks Diagram – 2.5 Marks	5
	ii.	Write down 5 differences of AWT and swing.	5

| | | 1 Difference - 1 Mark Each
5 Differences - 5 Marks | |
| | iii. | Write a program to show and hide the buttons alternatively.
Design – 1 mark
Coding – 5 Marks | **5** |

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