



BRAINWARE UNIVERSITY

Programme – Master of Arts in Multimedia & Web Development

Course Name - OOPs Programming with Java

Course Code - MMW301B

(Semester – 3)

Time allotted: 3 Hours

Full Marks: 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question)

10 x 1 = 10

1. *Choose the correct alternative from the following*

(i) Java is a _____ language.

- | | |
|-------------------|-------------------|
| a. weakly typed | b. strongly typed |
| c. moderate typed | d. None |

(ii) Programs in java are compiled using the byte code with the help of

- | | |
|--------------|----------|
| a. java.lang | b. javac |
| c. java.util | d. none |

(iii) OOP's concept the approach is

- | | |
|----------------|--------------|
| a. Top Down | b. Bottom Up |
| c. Middle Left | d. None |

(iv) The term used to data hiding is

- | | |
|------------------|-------------|
| a. Encapsulation | b. Encoding |
| c. Encryption | d. None |

(v) Size of int in java is

- | | |
|-----------|-----------|
| a. 16 bit | b. 32 bit |
| c. 64 bit | d. None |

- (vi) Which of the following are invalid variable name
- a. Minimum
 - b. 5thcolumn
 - c. n1+n2
 - d. none
- (vii) In java the word true is
- a. A Java keyword
 - b. A Boolean literal
 - c. Same as value 1
 - d. Same as value 0
- (viii) Which of the following arithmetic expressions are valid?
- a. $\text{Area} = r^2 + 2rh$
 - b. $\text{Torque} = 2m_1 m_2 m_3$
 - c. $\text{Energy} = \text{mass} * (\text{acceleration} * \text{high} + \text{velocity}^2 / 2)$
 - d. None
- (ix) A constructor is a special :-
- a. keyword
 - b. variable
 - c. class
 - d. none of the above
- (x) Binding data and function together is :
- a. Inheritance
 - b. Encapsulation
 - c. Polymorphism
 - d. None of the above.

Group – B

(Short Answer Type Questions)

3 x 5 = 15

Answer any *three* from the following

2. Write about the features of OOPS. 5
3. i) What is a garbage collector? 2
 ii) Explain it with an example 3
4. Explain with example the use of super keyword in java. 5
5. Explain final, finally and finalize () in java. 5
6. Write a program in Java to add 2 nos. using command line argument. 5

Group – C

(Long Answer Type Questions)

3 x 15 = 45

Answer any *three* from the following

- | | | |
|-----|---|----|
| 7. | (a) Write a program in Java to calculate the factorial of number. The number will be supplied by the user externally. | 8 |
| | (b) Write a program in Java to reverse a number. The number will be supplied by the user externally. | 7 |
| 8. | Write a program in java to create a class employee which will have name, age, salary as a data member. The class will contain default constructor, parameterized constructor and also copy constructor. The class will also have a member function show () which will display the details of the employee. Create 3 different types of objects demonstrating the use of each type of constructor. | 15 |
| 9. | (a) Write a program in java to calculate the sum of 1+2+3+...+n. | 7 |
| | (b) Write a program in java to check whether a number is prime or not. | 8 |
| 10. | (a) What are the importance of interface in Java? | 2 |
| | (b) Explain with a suitable example? | 7 |
| | (c) Explain function overloading with a suitable example? | 6 |
| 11. | (a) What is a byte code? | 2 |
| | (b) How will you compile a java file? | 4 |
| | (c) What is a Thread? | 2 |
| | (d) Write a program in java to demonstrate the use of function overloading? | 7 |
