

Jadavpur University

MASTER OF LIBRARY & INFORMATION SCIENCE
(DIGITAL LIBRARY) EXAMINATION, 2024 (Supplementary)
(SECOND YEAR FIRST SEMESTER)

Subject: INFORMATION TECHNOLOGY-III

Paper: MLDL-12

Full Marks : 50

Time : Two Hours

Answer all questions

- Q. 1 A) What is a scripting language? Are Java and JavaScript the same? What are the needs of scripting language in web development? Mention advantages and disadvantages of using Scripting Languages? $2 + 2 + 2 + 4$

OR

- Q.1 B) What is OOPs concept in JavaScript? How can you create an object in JavaScript? What is DOM in JavaScript? Build a program to print the current date on the browser's window. $2 + 2 + 2 + 4$

- Q.2 A) In how many ways a JavaScript code can be involved in an HTML file? Explain with a suitable example of each. How to change the background colour of HTML document using JavaScript? $3 + 3 + 4$

OR

- Q.2 B) Explain about Function definition, Function calling, Function parameter with suitable examples in JavaScript. What is the output of $10 + 20 + "30"$ and $"10" + 20 + 30$ in JavaScript with reasons? $8 + 2$

- Q. 3 a) Write java codes for the following problems (4 out of 8): $5 \times 4 = 20$

i) Check Whether a Number or a string is Palindrome or Not? Take input from the keyboard during execution of the program.

ii) Calculate Income Tax according to the following logic. Income should be taken during run time.

The tax rates are

0-3 lakh - nil

3-6 lakh - 5%

6-9 lakh- 10%

9-12 lakh - 15%

12-15 lakh - 20%

above 15 lakh- 30%

iii) Write java code to print the following pattern:

5 4 3 2 1

5 4 3 2

5 4 3

5 4

5

iv) Write java code to display the members of Fibonacci series below 100

Clue: The members are

0, 1, 1, 2, 3, 5, 8, 13, 21

v) Write java code to print the following pattern:

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

vi) Convert time given in seconds into hour, minutes and seconds

vii) Convert temperature given in Centigrade into Fahrenheit

viii) Write a Java Program to demonstrate the working of a Library system where we insert books with three variables (id, title and price) and display books from the stock. Create a Book class which has insert() and display() methods.

Q. 4) Write Short Notes (Any two) : 5x2

- 2) JavaScript Variable
- 3) JavaScript Control Structures
- 4) Input/output system in Java
- 5) "Classes", "Objects" and "Methods" in Java