

IMCA 6<sup>th</sup> Semester  
Examination, 2021

Sub: IT  
Paper- 6.1

Time-2hrs

Unit-I

Total Mark: 70

1. What is the use of keyword “this” in java? Write a java [14] program to create an abstract class **Product** having data fields **product\_id, name ,price and qty** of the product. The class should have an abstract method **int get\_gst()**. Inherit two classes Electronics and Kids from product class having data field **type\_of\_product**. Override the **get\_gst()** method in sub classes. Finally display total\_price of different types of product with gst value.

OR

Write down the advantages of ArrayList over Array. Write [14] down the use of **Iterator** interface with suitable example. Write a java program to create class Employee having data fields emp\_code, emp\_name, dept, designation. Store employee information of 5 employees into an arraylist and display their values.

Unit-II

2. a) What is the difference between **rowspan** and **colspan**? Write [10] an HTML code to draw a table as follows.

Regd No	Name		Percentage
	First	Last	
CS001	Ram	Sharma	85
CS002	Ravi	Sahoo	79

- b) What is an array in JavaScript? Write down the syntax to [4] create an array.

OR

What is the syntax to write a function in JavaScript? Write an [14] html code to create a registration form having information user name, password, email-id and mobile no and submit button. Write a function to validate the email-id and mobile number entered by a user in a form. The telephone number is always a number. And e-mail must be in the e-mail format.

### Unit-III

3. What is ResultSetMetadata ? Using JDBC , write a java program to print the marklist of a student from the table named as **Student\_mark(Regd\_ID,Stu\_name,dept,semester,mark\_percentage)** . [14]

OR

What is JDBC? Explain the terms JDBC driver, Connection, Statement and ResultSet . [14]

### Unit-IV

4. a) JSP is a servlet. Justify through the life cycle of JSP. [7]  
b) What is exception in JSP? Write a program in JSP to show the way errors are handled. [7]

OR

What is the difference between include directive tag and include action tag? Write a client-server program in JSP to convert Indian rupees to different currency. The Indian rupees must be entered through text field and types of currency must be entered through select –option field through an HTML form. [14]

### Unit-V

5. What is Java bean? How do you use a Java bean in a JSP program? Create a java bean to manage book information for a library. The book information are book\_code, book\_name, author, publisher, edition. Display all the book information in the browser. 14

Or

- a) What is a JAR file? Write down the steps to create a JAR file. 7  
b) What is MVC? Explain MVC model through a suitable diagram. 7