

**Goa Vidyaprasarak Mandal's  
GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE AND ECONOMICS  
FARMAGUDI, PONDA - GOA**

**B.C.A. UGC-CCFUP (SEMESTER-IV) REGULAR EXAMINATION APRIL 2025**

**CSA-223 – ADVANCED JAVASCRIPT**

**Duration: 2 HOUR**

**Total Marks: 60**

1. All questions are compulsory and figures to the right indicate full marks.
2. Questions of 2 marks to be answered in not more than 40 words.
3. Questions of 3 marks to be answered in not more than 60 words.
4. Questions of 4 marks to be answered in not more than 80 words.

Q.1) Write a short note on following: 4 X 3 marks = 12 marks (BL 1, CO1)  
a) ECMA script  
b) REPL  
c) Rounding errors in JavaScript  
d) type of operator in JavaScript

Q.2 A) i) Explain JavaScript Array map() method using Example. 3 marks (BL 2, CO1)  
ii) Explain Global Objects in JavaScript. 2 marks (BL 2, CO1)

**OR**

Q.2 A) i) Explain JavaScript Array filter() method using example. 3 marks (BL 2, CO1)  
ii) Explain multidimensional array using example. 2 marks (BL 2, CO1)

Q.2 B) i) Explain any 4 Ways to Convert an Object to a Map in JavaScript. 5 marks (BL 2, CO1)  
ii) Explain JavaScript delete Operator using example. 2 marks (BL 2, CO1)

Q.3 A) i) Construct a JavaScript to show Array IndexOf() and lastIndexOf() method. 3 marks (BL 3, CO 2)  
ii) Develop JavaScript code to Use anonymous functions as arguments. 2 marks (BL 3, CO 2)

**OR**

Q.3 A) i) Construct a JavaScript to show hasOwnProperty() Method. 3 marks (BL 3, CO 2)  
ii) Develop JavaScript code Access and Process Nested Objects or Arrays 2 marks (BL 3, CO 2)

**P.T.O.**



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**BCA UGC – CCFUP (SEMESTER – IV) END EXAMINATION, APRIL/MAY 2025**  
**HIN-252 - HINDI (SAMBHASHAN KALA)**

Duration-1 hr

Max Marks- 40

No. of Pages- 01

**प्र. 1. अ. निम्नलिखित प्रश्नों में से किन्हीं चार प्रश्नों के लघु उत्तर लिखिए।**

(Marks) (CO) (BL)

1. संभाषण में उच्चारण की क्या महत्ता है? (2) (CO1) (BL1)
2. वार्तालाप से क्या अभिप्राय है? (2) (CO1) (BL1)
3. लिखित संभाषण से आप क्या समझते हैं? (2) (CO1) (BL2)
4. संभाषण के लिए कौनसे डिजिटल प्लेटफॉर्म का प्रयोग किया जाता है? (2) (CO1) (BL1)
5. संभाषण में अंतराल ध्वनि क्यों महत्वपूर्ण है? (2) (CO1) (BL1)

**प्र. 2. अ. रोजगार के क्षेत्र में संभाषण कला का क्या महत्व है?**

(8) (CO2) (BL3)

**अथवा**

**आ. टिप्पणियाँ लिखिए :**

1. सूत्र संचालक के गुण। (4) (CO2) (BL1)
2. एकालाप। (4) (CO2) (BL1)

**प्र. 3. अ. वाद – विवाद के प्रकारों को उदाहरण सहित स्पष्ट कीजिए।**

(8) (CO3) (BL2)

**अथवा**

**आ. टिप्पणियाँ लिखिए :**

1. जन संबोधन के कोई चार उदाहरण। (4) (CO3) (BL1)
2. व्याख्यान के उद्देश्य। (4) (CO3) (BL1)

**प्र. 4. अ. खेल कमेंटेटर में कौन कौन से गुण होने आवश्यक हैं?**

(8) (CO1) (BL3)

**अथवा**

**आ. टिप्पणियाँ लिखिए :**

1. संभाषण में भाषा पर प्रभुत्व। (4) (CO1) (BL1)
2. अवाचिक अभिव्यक्ति। (4) (CO1) (BL1)

**प्र. 5. अ. जनसंपर्क में वाक्कला की उपयोगिता पर प्रकाश डालिए।**

(8) (CO4) (BL3)

**अथवा**

**आ. टिप्पणियाँ लिखिए :**

1. श्रवण कौशल का महत्व। (4) (CO4) (BL1)
2. कहानी वाचन में चुनौतियाँ। (4) (CO4) (BL1)

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**ECONOMICS PONDA- GOA**  
**B.C.A. UGC-CCFUP (SEMESTER-IV) REGULAR EXAMINATION, APRIL 2025**  
**CSA-204 OBJECT ORIENTED CONCEPTS**

**Duration: 2 hours**

**Total Marks: 60**

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**Instructions:**

- i) All questions are compulsory.*
- ii) Figures to the right indicate full marks.*
- iii) Draw diagrams wherever necessary.*

- |                   |   |                          |
|-------------------|---|--------------------------|
| <b>Q.1)</b>       | Answer <b>each of</b> the following.  | <b>(Marks) (CO) (BL)</b> |
| i.                | Name the four pillars of OOP.   | (2) (CO 2) (BL 1)        |
| ii.               | State any two reasons why UML is used.  | (2) (CO 2) (BL 1)        |
| iii.              | List any two advantages of OOP.   | (2) (CO 1) (BL 1)        |
| iv.               | Define encapsulation.   | (2) (CO 2) (BL 1)        |
| v.                | Name the two types of polymorphism.   | (2) (CO 2) (BL 1)        |
| vi.               | Define the term object-oriented programming.  | (2) (CO 1) (BL 1)        |
| <b>Q.2 A) i)</b>  | Discuss the differences between procedure-oriented and object-oriented programming. | (3) (CO 1) (BL 2)        |
| ii)               | Illustrate any two scopes of variables used in classes.                             | (2) (CO 2) (BL2)         |
| <b>OR</b>         |   |                          |
| <b>Q.2A) iii)</b> | List and explain any three features of object-oriented programming.                 | (3) (CO 1) (BL 2)        |
| iv)               | Explain the concept of object in OOP with an example.                               | (2) (CO 2) (BL 2)        |
| <b>Q.2 B) i)</b>  | Draw a class diagram to represent an online banking system.                         | (5) (CO 1) (BL 2)        |
| ii)               | Explain the use of this keyword.  | (2) (CO 2) (BL 2)        |

**P.T.O.**

- Q.3 A) i)** Explain with an example how compile time polymorphism works in Java. (3) (CO 3) (BL 3)
- ii) Demonstrate the use of a base class and a derived class in Java. (2) (CO 3) (BL 3)

**OR**

- Q.3 A) iii)** Illustrate the concept of hierarchical inheritance with an example. (3) (CO 3) (BL 3)
- iv) Explain the use of garbage collection in Java. (2) (CO 3) (BL 3)

- Q.3 B) i)** Write a Java program to demonstrate the use of a copy constructor. (5) (CO 3) (BL 3)
- ii) Determine any two rules for defining a constructor. (2) (CO 3) (BL 3)

- Q.4 A) i)** Analyse the differences between abstract classes and interfaces in Java. In what situations would you prefer one over the other? (3) (CO 4) (BL 4)

- ii) Find the output of the below given code: (2) (CO 4) (BL 5)

```
public class MyClass
{
    MyClass()
    {
        System.out.println("Constructor called!");
    }
    public static void main(String[] args)
    {
        MyClass obj = new MyClass();
    }
}
```

**OR**

- Q.4 A) iii)** Explain the exception handling mechanism with a neat diagram. (3) (CO 4) (BL 4)

- iv) Find the output of the below given code: (2) (CO 4) (BL 5)

```
public class MethodDemo
{
    public static void greet()
    {
        System.out.println("Welcome!");
    }

    public static void main(String[] args) {
        greet();
    }
}
```

- Q.4 B) i)** Compare checked and unchecked exceptions in Java with example. (5) (CO 4) (BL 4)
- ii) Examine the use of the finally block in exception handling. (2) (CO 4) (BL 4)
- Q.5 A) i)** Analyse the use of try, throw and throws statement in Java. (3) (CO 4) (BL 4)
- ii) Explain the significance of interfaces in Java. (3) (CO 4) (BL 4)
- OR**
- Q.5 A) iii)** Compare compile time and run time errors with example. (3) (CO 4) (BL 4)
- iv) Explain the three types of errors in Java. (3) (CO 4) (BL 4)
- Q.5 B) i)** Write a Java program to demonstrate run time polymorphism. (3) (CO 4) (BL 3)
- ii) Illustrate the concept of single level inheritance. (3) (CO 4) (BL 3)

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**B.C.A. UGC-CCFUP(SEMESTER – IV) END EXAMINATION, APRIL 2025**  
**WEB TECHNOLOGY (CSA-205)**

Duration: **1 hour**

Marks: 40

**Instructions:** *i) All questions are compulsory and figures to the right indicate full marks.*

*ii) Questions of 2 marks to be answered in approximately 40 words.*

*iii) Questions of 4 marks to be answered in approximately 80 words.*

**Q.1A.** Define the following terms

**(4x2 =08 Marks) (BL-1,CO-1)**

- i. Web 2.0
- ii. Cookie
- iii. DNS
- iv. HTTPS

**Q2. A. i.** List & explain any three protocols used in web communication.

**(4 marks) (BL-1,CO-1)**

**OR**

**Q2. A.i.** Describe the difference between TCP and UDP protocols.

**(4 marks) (BL-1,CO-1)**

**Q2. B. i.** Describe the role of SMTP in email transmission

**(2 marks) (BL-1,CO-1)**

ii. Mention any two functions of a web server.

**(2 marks) (BL-1,CO-1)**

**Q3. A. i.** Apply your knowledge of JavaScript to implement control structures in a program. **(4 marks) (BL-3,CO-1)**

Explain how different control structures (such as if-else, loops) are used to solve specific problems in a given scenario.

**OR**

**Q3. A.i.** Demonstrate how JavaScript can be used to dynamically modify HTML elements **(4 marks) (BL-3,CO-1)**

in a web page. Provide an example where JavaScript interacts with HTML elements to perform tasks like changing content, styles, or handling user events.

**Q3. B. i.** Apply your understanding of web servers and web browsers by explaining how each function in the process of retrieving and displaying a web page. **(2 marks) (BL-3,CO-1)**

Provide a brief example of how a user interacts with both a web server and a web browser.

ii. Demonstrate the use of two control structures in JavaScript by providing examples of how they can be applied to solve a real-world problem, such as managing user input or handling loops in a program.

**(2 marks) (BL-3,CO-1)**

- Q4. A. i.** Analyze the Client/Server model by breaking down the roles of the client and the server.  
Explain how communication occurs between them. **(4 marks) (BL-4,CO-2)**
- OR**
- Q4. A.i.** Analyze the Document Object Model (DOM) and explain how it enables manipulation of web content. Discuss how various DOM methods are used to interact with HTML elements. **(4 marks) (BL-4,CO-2)**
- Q4. B. i.** Analyze the basic syntax of PHP, breaking down key elements such as variables, control structures, and functions. Explain how these elements interact to create a dynamic web application. **(2 marks) (BL-4,CO-3)**
- ii. Analyze the steps involved in hosting a website, from domain registration and selecting a hosting provider to uploading website files and configuring server settings. **(2 marks) (BL-4,CO-4)**  
Discuss the factors that influence the choice of hosting solutions.
- Q5. A. i.** Analyze the process of writing a JavaScript function that dynamically changes the background color of a web page upon a button click. Explain how event handling works in this context and discuss the impact of using different methods (e.g., inline event handlers, event listeners). **(4 marks) (BL-4,CO-3)**
- OR**
- Q5. A.i.** Analyze how user input can be captured and processed in JavaScript by writing a script that calculates the sum of two numbers entered by the user. **(4 marks) (BL-4,CO-3)**  
Explain the flow of data from input to output, and discuss how input validation and error handling can improve the reliability of the script.
- Q5. B. i.** Apply your knowledge of PHP decision-making statements to write a script that checks whether a given number is even or odd. **(2 mark) (BL-3,CO-3)**
- ii. Apply the MVC model to design a login system. **(2 marks) (BL-3,CO-4)**
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