



PRAHLADRAI DALMIA LIONS COLLEGE  
OF COMMERCE & ECONOMICS  
ISO 9001 : 2015 Certified

Semester II



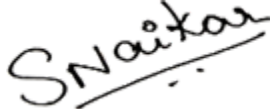

Date: 11<sup>th</sup> Sept, 2023

**B.Sc. (Information Technology)**  
**ATKT Internal Examination Semester II September, 2023**

**INSTRUCTIONS FOR THE STUDENTS HAVING ATKT IN INTERNALS**

1. Date of Submission of the Projects- 16<sup>th</sup> September, 2023.
2. Timings 9:00 am to 10:00 am. Reporting time for students: at least 10 minutes before the mentioned time. Venue: Third floor staffroom.
3. Students have to be present in person for the submission.
4. Internal project topics are also uploaded on the college website.
5. Submission of projects or assignments to be done on proper A4 size paper, handwritten by the candidate himself only. The Front page should contain details of Roll no, Name of the student, Semester, Subject.
6. Print out of the questions uploaded should be attached along with the project.
7. Students should also enclose a photocopy of the ATKT fee paid receipt along with each of his projects.
8. On the date of submission there will be a viva voce on the given questions/topics.
9. If the student fails to present himself on the given date and time he will be marked ABSENT for the said subject.
10. Any Submissions after the above mentioned date and time will not be accepted and entertained under any circumstances.

NOTE - Students who has paid ATKT fees for internal / practical but has not been allotted questions is requested to contact Ms. Rupali Mishra on or before 12th September, 2023 by mailing on [bscit@dalmialionscollege.ac.in](mailto:bscit@dalmialionscollege.ac.in)

			
<u>Ms. Rupali Mishra</u>	<u>CA. Durgesh Kenkre</u>	<u>Ms. Subhashini Naikar</u>	<u>Prof. (Dr.) D. N. Ganjewar</u>
<u>(Coordinator)</u>	<u>Exam Convener</u>	<u>Vice- Principal, SFC</u>	<u>(Principal)</u>

**Subject :Web Programming (Practical)**

**Note : Write the answer with Aim, Code, and Output screenshot.**

Roll No	
124	<ol style="list-style-type: none"><li>1. Using JavaScript design, a web page that prints factorial/Fibonacci series/any given series.</li><li>2. Write a PHP code to find the greater of 2 numbers. Accept the no. from the user.</li></ol>
125	<ol style="list-style-type: none"><li>1. Write a PHP Program to accept a number from the user and print it factorial.</li><li>2. Write a PHP program to accept a number from the user and print whether it is prime or not.</li></ol>
148	<ol style="list-style-type: none"><li>1. Design a web page using different text formatting tags.</li><li>2. Design a web page with Imagemaps.</li></ol>
164	<ol style="list-style-type: none"><li>1. Design a form and validate all the controls placed on the form using Java Script.</li><li>2. Write a JavaScript program to accept a number from the user and display the sum of its digits.</li></ol>
171	<ol style="list-style-type: none"><li>1. Write a PHP code to find the greater of 2 numbers. Accept the no. from the user.</li><li>2. Using JavaScript design, a web page that prints factorial/Fibonacci series/any given series.</li></ol>

**Subject :Web Programming (Internal)**

Roll No	
164	<ol style="list-style-type: none"><li>1. Write the difference between GET and POST methods in PHP.</li><li>2. Explain different types of arrays available in PHP.</li><li>3. Write a PHP program to demonstrate the use of different string functions.</li><li>4. Explain error handling in PHP.</li></ol>
171	<ol style="list-style-type: none"><li>1. What is a cookie? How to store and retrieve the values in a cookie in PHP?</li><li>2. Explain any five PHP/MYSQL functions with examples.</li><li>3. Write a PHP program to send email with attachment.</li><li>4. How to start and destroy a session and how to store a session variable in PHP? Explain.</li></ol>

**Subject :Fundamentals of Microprocessor MicroController (Internal)**

Roll No	
171	<ol style="list-style-type: none"><li>1. Explain Tristate device logic and Buffer.</li><li>2. Write a short note on classification of memory.</li><li>3. Draw a neat label functional block diagram of 8085 microprocessor and explain the flags of the flag register.</li><li>4. Explain the timing diagram of the Memory Read Cycle.</li></ol>

**Subject :Microprocessor Architecture (Practical)**

Roll No	
124	<ol style="list-style-type: none"><li>1. Store the data byte 32H into memory location 4000H.</li><li>2. Exchange the contents of memory locations 2000H and 4000H</li></ol>
125	<ol style="list-style-type: none"><li>1. Subtract two 8-bit numbers</li><li>2. Add two 16-bit numbers</li></ol>
129	<ol style="list-style-type: none"><li>1. Program to shift 16-bit data 1 bit left. Assume data is in the HL register pair</li><li>2. Calculate the sum of a series of numbers. The length of the series is in memory location 4200H and the series begins from memory location 4201H.</li></ol>
170	<ol style="list-style-type: none"><li>1. Find the 1's complement of the number stored at memory location 4400H and store the complemented number at memory location 4300H.</li><li>2. Find the 2's complement of the number stored at memory location 4200H and store the complemented number at memory location 4300H.</li></ol>
171	<ol style="list-style-type: none"><li>1. Write a program to shift an eight bit data four bits right. Assume that data is in register C.</li><li>2. Program to shift 16-bit data 1 bit left. Assume data is in the HL register pair</li></ol>

**Subject :Object Oriented Programming (Internal)**

Roll No	
116	<ol style="list-style-type: none"><li>1 Explain the characteristics of Procedural Oriented Programming.</li><li>2 Write short note on Object Oriented Programming.</li><li>3 What are the benefits of Object Oriented Programming?</li><li>4 Write a program in C++ to accept a number from the user and print its multiplication table.</li></ol>
119	<ol style="list-style-type: none"><li>1 Explain the characteristics of Object Oriented Programming.</li><li>2 What are the limitations of Procedure Oriented Programming?</li><li>3 What are the applications of Object Oriented Programming?</li><li>4 Write a program in C++ to accept a number from the user and calculate its factorial.</li></ol>
164	<ol style="list-style-type: none"><li>1 What are the applications of Object Oriented Programming?</li><li>2 Write a program in C++ to accept a number from the user and calculate its factorial.</li><li>3 Distinguish between procedure Oriented Programming and Object Oriented Programming.</li><li>4 Explain the concepts- Object, Inheritance and Polymorphism.</li></ol>
171	<ol style="list-style-type: none"><li>1. What are the characteristics of Procedure Oriented Programming? Explain</li><li>2. What is friend function? Write a friend function to display “Hello World” message on the screen</li><li>3. Write a short note on operator overloading</li><li>4. Define the term generic programming. Give its advantages</li></ol>

**Subject :Object Oriented Programming (Practical)**

Roll No	
124	<ol style="list-style-type: none"><li>1) Write a program to arrange 10 numbers in ascending and descending order</li><li>2) Write a program to perform the Matrix addition, Multiplication and Transpose Operation.</li></ol>
125	<ol style="list-style-type: none"><li>1) Write a program to find the factorial of a number.</li><li>2) Write a program program to search a number in a given array.</li></ol>
163	<ol style="list-style-type: none"><li>1. Write a program to demonstrate function definition outside class and accessing class members in function definition.</li><li>2. Write a friend function for adding the two different distances and display its sum, using two classes.</li></ol>
166	<ol style="list-style-type: none"><li>1. Write a friend function for adding the two matrix from two different classes and display its sum</li><li>2. Design a class Complex for adding the two complex numbers and also show the use of constructor</li></ol>
171	<ol style="list-style-type: none"><li>1. Design a class Geometry containing the methods area() and volume() and also overload the area() function</li><li>2. Overload the operator unary(-) for demonstrating operator overloading</li></ol>

**Subject :Green Computing (Internal)**

Roll No	
116	<ol style="list-style-type: none"><li>1. Explain the features and hardware specification of Excito.</li><li>2. How you can minimize excessive power output from wireless devices</li><li>3. Write a note on cooling optimization by data center design.</li><li>4. What is Microsoft Office SharePoint Server 2007.</li></ol>
119	<ol style="list-style-type: none"><li>1. List and explain the various toxins present in computer systems.</li><li>2. Discuss cost saving in power consumption by desktop and data centers.</li><li>3. Write a short note on Basel Action Network</li><li>4. List the tips to keep water usage under control.</li></ol>
156	<ol style="list-style-type: none"><li>1. What is the carbon footprint? Explain the ways to compute carbon footprint.</li><li>2. Write a note on StEP.</li><li>3. Explain the ways of reducing power consumption in storage.</li><li>4. Write a short note on intranet</li></ol>
164	<ol style="list-style-type: none"><li>1. What are the steps involved for Measuring of carbon footprint?</li><li>2. How hardware deployments can affect the environment?</li><li>3. Write a note on Equipment Disposal.</li><li>4. What are the steps taken by JAPAN for managing their own e-waste problem?</li></ol>

166	<ol style="list-style-type: none"> <li>1. Write a note on Data De-Duplication and Virtualization.</li> <li>2. Explain MAID and RAID.</li> <li>3. What is polling? Give an example.</li> <li>4. List and explain the issues regarding power consumption and cooling costs.</li> </ol>
171	<ol style="list-style-type: none"> <li>1. List and explain the decision making pyramid with its levels.</li> <li>2. Which things are necessary for an environmentally preferable purchasing plan?</li> <li>3. How to find out which products have low levels of toxins?</li> <li>4. Which things are needed to go paperless in organization?</li> </ol>

**Subject :PL/SQL (Practical)**

Roll No	
111	1. Demonstrate PL/SQL IF-THEN-ELSE statement with the help of any two examples with Aim, Code, and output.
124	2. Demonstrate PL/SQL SWITCH statements with the help of any two examples with Aim, Code, and output.
125	3. Demonstrate Any 10 PL/SQL STRING functions with the help of examples with Aim, Code, and output.
132	4. Demonstrate PL/SQL WHILE statement with the help of any two examples with Aim, Code, and output.
163	5. Demonstrate PL/SQL FOR statement with the help of any two examples with Aim, Code, and output.
164	6. Demonstrate PL/SQL CURSOR statement with the help of any two examples with Aim, Code, and output.
171	7. Demonstrate PL/SQL TRIGGER statement with the help of any two examples with Aim, Code, and output.

**Subject : Numerical Statistical Methods (Practical)**

**Note : Write the answer with Aim, Code, and Output screenshot.**

124	<ol style="list-style-type: none"> <li>Q1. Write a Scilab program to solve algebraic and transcendental equations by bisection method.</li> <li>Q2. Write a Scilab program for Newton's forward interpolation.</li> <li>Q3. Write a Scilab program for solving linear systems of equations using Gauss Jordan method.</li> </ol>
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125	<p>Q1. Write a Scilab program to solve algebraic and transcendental equations by false position method.</p> <p>Q2. Write a Scilab program for numerical integration using Simpson's 1/3rd rule.</p> <p>Q3. Write a Scilab program to solve differential equation using Euler's method</p>
171	<p>Q1. Write a Scilab program to solve algebraic and transcendental equations by Secant method.</p> <p>Q2. Write a Scilab program for Newton's backward interpolation.</p> <p>Q3. Write a Scilab program for numerical integration using Simpson's 3/8th rule</p>
<b>113</b>	<p>Q3. Write a Scilab program for solving linear systems of equations using Gauss Jordan method.</p> <p>Q3. Write a Scilab program to solve differential equation using Euler's method</p> <p>Q3. Write a Scilab program for numerical integration using Simpson's 3/8th rule</p>

<p>171</p>	<ol style="list-style-type: none"><li>1. Compute <math>x = \frac{1}{3}</math> Where <math>x</math> value is rounded upto 4 decimal places, find the absolute and relative errors in <math>x</math>. Consider Correct value of <math>x</math> upto 6 decimal places.</li><li>2. Find the error value of <math>e^{0.7}</math> of the Taylor series for the first five terms.</li><li>3. Obtain the root of <math>f(x) = xe^x = 1</math> using the Bisection method.</li><li>4. <b>Solve Graphically</b> Max <math>Z = 20x + 40y</math> Subject to <math>5x + 8y \leq 40</math> <math>x \leq 4</math> <math>y \leq 3</math> <math>x, y \geq 0</math></li><li>5. For random variable <math>X</math>, the number of heads appears when an unbiased coin is tossed thrice. Find the following.<ol style="list-style-type: none"><li>1. Probability mass function</li><li>2. Expected value</li><li>3. Variance</li></ol>If <math>P(X=0)=0.125</math>, <math>P(X=2) = 0.375</math>, <math>P(X=3) = p</math></li></ol>
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