



PRAHLADRAI DALMIA LIONS COLLEGE OF COMMERCE & ECONOMICS

ISO 9001: 2015 Certified
NOTICE

B.Sc.(I.T.)

ATKT Internal/Practical Examination April 2021

Semester I to IV 2021

INSTRUCTIONS FOR THE STUDENTS HAVING ATKT IN INTERNALS/PRACTICALS

- 1. Date of Submission of the Projects- 23 April 2021, by 12 Noon.**
- Project/ assignment has to be handwritten on A4 size paper or Foolscap paper. On top of every page student should write his name, Seat No. and Subject.
- Practical submission must be handwritten with proper output drawn.
- Students are expected to write the question followed by the answer.
- 5. Student has to scan the ATKT fee payment receipt as well as all the pages of his project answer sheets and upload the same on the following google form link.**
<https://forms.gle/PfAtqivGn6TrV9ka9>
- On the date of submission there may be a viva voce on the given questions. If the student fails to submit the project on or before the given date and time he will be marked **ABSENT for the said subject.**
- Any submission after the above mentioned date and time will not be accepted and entertained under any circumstance.**
- Those students who had FILLED THE FORM & PAID THE FEES and still have NOT been allocated questions in the following list, please send a mail along with attachment of fee receipt to rupali.m@dalmialionscollege.ac.in on or before 12.00 noon, 19th April, 2021 (Monday).**

Prof. Rupali Mishra

Co-ordinator

Prof. Durgesh Kenkre

Exam Convener

Prof. Subhashini N.

Vice Principal SFC

Dr. Kiran Name

I/C Principal

16th April 2021

DI/N-STD/GEN/00

Semester I

Subject : Operating System (Internal)

Roll No	Name of the Student
161	JAGDALE RAHUL 1) Define Operating System. Explain functions of OS. 2) Explain the concept of Swapping with suitable examples. 3) Explain different types of hypervisor. 4) What is virtualization? Explain

Subject : Operating System Practical

Roll No	Name of the Student
109	GARADKAR ROHIT MAHADEV 1) Perform the following DOS commands i) cd ii) fdisk iii) date iv) ver v) copy 2) Explain any 5 tools of paint application.
122	LAD OMKAR 1) Perform the following DOS commands i) md ii) prompt iii) date iv) time v)xcopy 2) Explain the buttons on the taskbar..
169	PAL RAHUL 1) Perform the following DOS commands i) find ii)rename iii) type iv) ver v) rd 2) Write a short note on Notepad and create one file in it using different options..
168	SHAIKH AWEZ 1) Perform the following DOS commands i) format ii) del iii) path iv) date v) copy 2) Explain any 3 web browsers..
150	SINGH ABHINAV 3) Perform the following DOS commands i) move ii) defrag iii) cd iv) mkdir v) rename 4) Write a short note on Wordpad and create one file in it using different options.
163	SINGH ABHISHEK DHARMENDRA 1) Perform the following DOS commands i) md ii) prompt iii) date iv) time v)xcopy 2) Explain any 4 tools of paint application.
155	VISHWAKARMA SATYENDRA RAMMILAN 1) Perform the following DOS commands i) fc ii) edit iii) find iv) set v) echo 2) Write the steps to adjust display resolution of your computer screen.
162	YADAV ANOOP 1) Perform the following DOS commands i) format ii) del iii) path iv) date v) copy 2) Write a short note on Wordpad and create one file in it using different options.

Subject : Digital Electronics Practical

Roll No	Name of the Student
---------	---------------------

155	VISHWAKARMA SATYENDRA RAMMILAN 1) Design and implement Half adder 2) Implement the given Boolean expressions using minimum number of gates for De Morgan's Theorem
153	YADAV RAJAN JITENDRA 1) Design and implement 4:1 multiplexer 2) Implement AND, OR, NOT, XOR, XNOR using NOR gates.

Subject : Imperative Programming Practical

Roll No	Name of the Student
109	GARADKAR ROHIT MAHADEV 1) Write a program to check whether the number is positive, negative or zero. 2) Write a program to find the factorial of a number.
169	PAL RAHUL 1) Write a program to check whether the entered number is prime or not. 2) Write a program to find the largest of three numbers.
150	SINGH ABHINAV 1) Write a program to find the sum of numbers from 1 to 100. 2) Write a program to print the Fibonacci series.
155	VISHWAKARMA SATYENDRA RAMMILAN 1) Write a program to find the reverse of a number. 2) Write a program to find whether a given number is palindrome or not.
162	YADAV ANOOP 1) Write a program to find the factorial of a number using recursive function. 2) Write a program to find the sum of natural numbers using a recursive function.

Subject : Communication Skills Practical

Roll No	Name of the Student
150	SINGH ABHINAV 1) Draft a job application letter to Reliance for the position of a sales representative. Use a word processor to write the application. 2) Critically analyze the link provided http://google.com website. Give your comments on the following using feedback technique. Home page, headings, use of color, navigating to hyperlinks, highlighting techniques and reader friendliness.

155	<p>VISHWAKARMA SATYENDRA RAMMILAN</p> <ol style="list-style-type: none"> 1) Explain the Use of presentation tools for communication. 2) Draft a letter to the secretary of the society, to complain about the misuse of water in the society. Use a word processor to write the application. 3)
-----	--

Subject : Discrete Mathematics Practical

Roll No	Name of the Student
155	<p>VISHWAKARMA SATYENDRA RAMMILAN</p> <ol style="list-style-type: none"> 1) Write a Scilab program for Sum rule principle. 2) Write a Scilab program to calculate the factorial of a given number.

Semester II

Subject :Object Oriented Programming (Internal)

Roll No	Name of the Student
112	KHADKA SAGAR RAMESH 1) What are the characteristics of OOP? Explain. 2) Define Inheritance. What are the different types of Inheritance? 3) Explain Operator Overloading in C++. 4) Explain Friend Function in C++ with example.

Subject :Microprocessor Architecture (Internal)

Roll No	Name of the Student
112	KHADKA SAGAR RAMESH 1) Explain Microprocessor Instruction Set. 2) Define Microprocessor Architecture and its operations. 3) Explain Basic interfacing concepts. 4) Explain 8085 Interrupt, 8085 Vectored Interrupts,
161	TIWARI SHWETA 1) What are the various addressing modes of 8085 microprocessors? 2) Explain the instructions LHLD, XCHG and POP. 3) Explain program counter, stack pointer and increment-decrement latch of 8085 microprocessor. 4) List and describe the special Pentium registers.

Subject : Numerical and Statistical Methods (Internal)

Roll No	Name of the Student
112	KHADKA SAGAR RAMESH 1) List and explain different types of errors. 2) What are the different application of Linear Programming 3) Explain Floating point of numbers and Errors. 4) What is the Interpolation method? Give an example.

Semester III

Subject : Python Programming Theory

Roll No	Name of the Student
236	SONI ISHANK 1. A. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements. 2. B. Write a Python program to clone or copy a list
247	TIWARI PRAFUL JITENDRAKUMAR 1. A. A pangram is a sentence that contains all the letters of the English alphabet at least once. For example: The quick brown fox jumps over the lazy dog. Write a function to check a sentence to see if it is a pangram or not. 2. B. Take a list, say for example this one: a=[1,1,2,3,5,8,13,21,34,55,89] and write a program that prints out all the elements of the list that are less than 5.

Subject : Python Programming Practical

Roll No	Name of the Student
264	DAYAMA PRAMOD 1. Write a Python program to create an array of 5 integers and display the array items. Access individual element through indexes. 2. Write a Python program to append a new item to the end of the array.
225	GHANSHYAM VISHNUPRASAD SADHU 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.
252	HASAN ZEESHAN JAVED 1. A. A pangram is a sentence that contains all the letters of the English alphabet at least once. a. For example: The quick brown fox jumps over the lazy dog. b. Write a function to check a sentence to see if it is a pangram or not. 2. B. Take a list, say for example this one: a. a=[1,1,2,3,5,8,13,21,34,55,89] and write a program that prints out all the elements of the list that are less than 5.
232	SHARMA SACHIN 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.

230	<p>SHAIKH NOMAN</p> <ol style="list-style-type: none"> 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.
215	<p>MEHTE SAYLI RAVINDRA</p> <ol style="list-style-type: none"> 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.
247	<p>TIWARI PRAFUL JITENDRAKUMAR</p> <ol style="list-style-type: none"> 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.
254	<p>VISHWAKARMA ZIGNESH</p> <ol style="list-style-type: none"> 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.
257	<p>YADAV AAYUSH PRADEEP</p> <ol style="list-style-type: none"> 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.
245	<p>YADAV DINESH</p> <ol style="list-style-type: none"> 1. A. Write a program that takes two lists and returns True if they have at least one common member. 2. B. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th elements.

Subject : Data Structures Theory

Roll No	Name of the Student
236	<p>SONI ISHANK</p> <ol style="list-style-type: none"> 1. (a) Explain different types of queues in data structures. 3 2. (b) How does binary search different from linear search? 3 3. (c) Explain Doubly Linked List. 3 4. (d) Define graph and list any three applications of graph

247	<p>TIWARI PRAFUL JITENDRAKUMAR</p> <p>Write short notes on:</p> <ol style="list-style-type: none"> 1. a) Asymptotic notations 2. b) Double Ended Queue(De-Queue) 3. c) Insertion Sort 4. d) DFS and BFS
245	<p>YADAV DINESH</p> <ol style="list-style-type: none"> 1. (a) Explain different types of queues in data structures. 3 2. (b) How does binary search different from linear search? 3 3. (c) Explain Doubly Linked List. 3 4. (d) Define graph and list any three applications of graph

Subject : Data Structure Practical

Roll No	Name of the Student
264	<p>DAYAMA PRAMOD</p> <p>Write a program to store the elements in 1-D array and perform the operations like searching, sorting and reversing the elements.</p> <p>Read the two arrays from the user and merge them and display the elements in sorted order.</p>
230	<p>SHAIKH NOMAN</p> <p>Write a program to implement the concept of Stack with Push, Pop, Display and Exit operations.</p> <p>Write a program to perform the Matrix addition, Multiplication and Transpose Operation.</p>
247	<p>TIWARI PRAFUL JITENDRAKUMAR</p> <p>Read the two arrays from the user and merge them and display the elements in sorted order.</p> <p>Write a program to store the elements in 1-D array and perform the operations like searching, sorting and reversing the elements.</p>
245	<p>YADAV DINESH</p> <p>Write a program to perform the Matrix addition, Multiplication and Transpose Operation.</p> <p>Write a program to implement the concept of Stack with Push, Pop, Display and Exit operations.</p>
245	<p>YADAV RAJAN JITENDRA</p> <p>Write a program to store the elements in 1-D array and perform the operations like searching, sorting and reversing the elements.</p> <p>Read the two arrays from the user and merge them and display the elements in sorted order.</p>

Subject : Computer Network Theory

Roll No	Name of the Student
264	<p>DAYAMA PRAMOD</p> <p>Discuss and compare various types of networks. The size option field of an IP datagram is 20 bytes. What is the value of HLEN? What is the value in binary? Compare connection less and connection-oriented services. What is routing in a network? Explain the shortest path routing protocol</p>
236	<p>SONI ISHANK</p> <p>What is routing in a network? Explain the shortest path routing protocol Explain the different transmission media in networking Explain OSI reference model and the services and functions of each layer Explain TCP segment header format in detail.</p>
245	<p>YADAV DINESH</p> <p>Compare connection less and connection-oriented services. What is routing in a network? Explain the shortest path routing protocol Discuss and compare various types of networks. The size option field of an IP datagram is 20 bytes. What is the value of HLEN? What is the value in binary?</p>

Subject : Computer Network Practical

Roll No	Name of the Student
264	<p>DAYAMA PRAMOD</p> <p>Construct Huffman code for the given symbols $\{x_1, x_2, \dots, x_8\}$ with probabilities $P(x) = \{0.07, 0.08, 0.04, 0.26, 0.14, 0.09, 0.07, 0.25\}$. Find the coding efficiency. The received string of bits is 110011001100. Is it acceptable? If so, what is the data bit sequence? Consider the divisor is 10101.</p>

Subject : DBMS Theory

Roll No	Name of the Student
236	<p>SONI ISHANK</p> <p>Construct an E-R diagram for a Library Management System. Convert the E-R Diagram to Tables. Explain types of integrity constraints with example. What is Normalization? Explain 1NF, 2NF, 3NF, and BCNF. Describe the overall architecture of DBMS with suitable diagram.</p>

245	<p>YADAV DINESH</p> <p>Explain Log based recovery.</p> <p>Construct an E-R diagram for a Library Management System. Convert the E-R Diagram to Tables.</p> <p>Explain types of integrity constraints with example.</p> <p>What is Normalization? Explain 1NF, 2NF, 3NF, and BCNF.</p>
-----	---

Subject : DBMS Practical

Roll No	Name of the Student
264	<p>DAYAMA PRAMOD</p> <p>Write SQL queries for the given database.</p> <p>Employee(eid, emp-name, street, city)</p> <p>Works(eid, cid, salary)</p> <p>Company(cid, comp-name, city)</p> <p>Manager(eid, manager-name)</p> <p>Write a query to create the above database and table and solve the following</p> <ul style="list-style-type: none"> ● (i) Find the names of all the employees having 'S' as first letter in their names. ● (ii) Display the annual salary of all the employees. ● (iii) Find the name, street and city of all employees who work for "Accenture" and earn more than 30,000. ● (iv) Give total number of employees.
247	<p>TIWARI PRAFUL JITENDRAKUMAR</p> <p>Write SQL queries for the given database.</p> <p>Employee(eid, emp-name, street, city)</p> <p>Works(eid, cid, salary)</p> <p>Company(cid, comp-name, city)</p> <p>Manager(eid, manager-name)</p> <p>Write a query to create the above database and table and solve the following</p> <ul style="list-style-type: none"> ● (i) Find the names of all the employees having 'S' as the first letter in their names. ● (ii) Display the annual salary of all the employees. ● (iii) Find the name, street and city of all employees who work for "Accenture" and earn more than 30,000. ● (iv) Give total number of employees.

Subject : Applied Maths Theory

Roll No	Name of the Student
---------	---------------------

233	SINGH ANKIT SANTOSH Explain the concept of Triple integration with the help of any 5 examples.
236	SONI ISHANK Explain the concept of Double integration with the help of any 5 examples.
247	TIWARI PRAFUL JITENDRAKUMAR Explain the concept of Triple integration with the help of any 5 examples.
254	VISHWAKARMA ZIGNESH Explain the concept of Double integration with the help of any 5 examples.

Subject : Mobile Programming Practical

Roll No	Name of the Student
264	DAYAMA PRAMOD creating and building sample "hello world" app using cordova. creating and using functions design in cordova app to convert currency and temperature.
252	HASAN ZEESHAN JAVED using events design a cordova app for basic calculator Installing and using camera plugin.
232	SHARMA SACHIN creating and building sample "hello world" app using cordova. creating and using functions design in cordova app to convert currency and temperature.
236	SONI ISHANK using events design a cordova app for basic calculator Installing and using camera plugin.

247	<p>TIWARI PRAFUL JITENDRAKUMAR creating and building sample "hello world" app using cordova. creating and using functions design in cordova app to convert currency and temperature.</p>
254	<p>VISHWAKARMA ZIGNESH using events design a cordova app for basic calculator Installing and using camera plugin.</p>
257	<p>YADAV AAYUSH PRADEEP creating and building sample "hello world" app using cordova. creating and using functions design in cordova app to convert currency and temperature.</p>
245	<p>YADAV DINESH using events design a cordova app for basic calculator Installing and using camera plugin.</p>

Semester IV

Subject : Core Java Practical

Roll No	Name of the Student
245	Yadav Rajan 1. Write a Java program to implement the vectors. 2. Write a Java program to implement thread life cycle.
241	Vajpayi Gaurav 1. Write a Java program to implement multithreading. 2. Create a package, add the necessary and import the package in java class.

Subject : Embedded Systems Practical

Roll No	Name of the Student
245	Yadav Rajan 1. Demonstrate Working with μ vision 2. Demonstrate 8051 microcontroller
241	Vajpayi Gaurav 1. Demonstrate Timer0 and Timer1 operation 2. Demonstrate TK Based Trainer kit

Subject : Computer Oriented Statistical Techniques - Internal

Roll No	Name of the Student
245	Yadav Rajan 1. Using R Execute the basic commands, array, list and other forms. 2. Using R execute statistical function :- Mean, Median, Mode, Range, Standard Deviation, Variance, summary 3. Enter the following data sets in Excel: a) 12, 6, 7, 3, 15, 10, 18, 5 b) 9, 3, 8, 8, 9, 8, 9, 18. Import the data in R and find standard deviation and variance of the data sets using R.
241	Vajpayi Gaurav 1. Many casinos use card-dealing machines to deal cards at random. Occasionally, the machine is tested to ensure an equal likelihood of dealing for each suit. To conduct the test, 1,500 cards are dealt from the machine, while the number of cards in each suit is counted. Theoretically, 375 cards should be dealt from each suit. But this is not the case as shown in the following table: Spades Diamonds Clubs Hearts Observed 402 358 273 467 Enter the data in Excel. Import the data in R and write a program using chi-square test to determine if the discrepancies are significant. If the discrepancies

	<p>are significant, then the game would not be fair.</p> <p>2. A business owner had been working to improve employee relations in his company. He predicted that he met his goal of increasing employee satisfaction from 65% to 80%. Employees from four departments were asked if they were satisfied with the working conditions of the company. The results are shown in the following table:</p> <p>Finance Sales HR Technology Satisfied 12 38 5 8 Dissatisfied 7 19 3 1</p> <p>Enter the data in Excel. Import the data from Excel to R and write a program using chi-square test to determine whether the results support or reject the business owner's prediction.</p>
--	--

Subject : Computer Oriented Statistical Techniques - Practical

Roll No	Name of the Student
245	<p>Yadav Rajan</p> <p>1. Suppose the number of games in which major league baseball players play during their careers is normally distributed with mean equal to 1500 games and standard deviation equal to 350 games. Use R to solve the following problems. (a) What percentage play in fewer than 750 games? (b) What percentage play in more than 2000 games? (c) Find the 90th percentile for the number of games played during a career.</p> <p>2. Enter the total agricultural exports in millions of dollars in Excel: Year 2000 2001 2002 2003 2004 2005 Total 51246 53659 53115 59364 61383 62958 Value Import the data in R and perform the following: (a) Graph the data and show the least-squares regression line. (b) Find and plot the trend line for the data. (c) Estimate the value of total agricultural exports in the year 2006.</p>
241	<p>Vajpayi Gaurav</p> <p>1. Enter the following table which shows the heights(H) to the nearest inch (in) And the weights(W) to the nearest pound (lb) of a sample of 12 male students drawn at random from the first-year students at College. H 70 63 72 60 66 70 74 65 62 67 65 68 W 155 150 180 135 156 168 178 160 132 145 139 152 Import the data in R and write a program to fit a least squares line using a) H as the independent variable b) H as dependent variable</p> <p>2. Enter the total agricultural exports in millions of dollars in Excel: Year 2000 2001 2002 2003 2004 2005 Total 51246 53659 53115 59364 61383 62958 Value Import the data in R and perform the following: (a) Graph the data and show the least-squares regression line. (b) Find and plot the trend line for the data. (c) Estimate the value of total agricultural exports in the year 2006.</p>

Subject : Software Engineering - Internal

Roll No	Name of the Student
245	Yadav Rajan <ol style="list-style-type: none">1. Write fundamental test process2. Write short note on any 5 types of Software Development models

Subject : Software Engineering Practical

Roll No	Name of the Student
245	Yadav Rajan <ol style="list-style-type: none">1. Draw and Explain Use case diagram with the help of any project2. Draw and Explain any 2 sequence diagrams with the help of any project
241	Vajpayi Gaurav <ol style="list-style-type: none">1. Draw and explain Data Flow Diagram with the help of any project2. Draw and explain ER diagram with the help of any project

Subject : Computer Graphics Practical

Roll No	Name of the Student
245	Yadav Rajan <ol style="list-style-type: none">1. Demonstrate Bresenham's line drawing algorithm with 1 example2. Demonstrate flood fill algorithm with 1 example3. Demonstrate 2D Translation Transformation
241	Vajpayi Gaurav <ol style="list-style-type: none">1. Demonstrate Bresenham's circle drawing algorithm with 1 example2. Demonstrate Boundary fill algorithm with 1 example3. Demonstrate 2D Rotation algorithm

