NOTICE

30th August, 2024

ATKT Internal Examination
B.Sc.I.T. (SEMESTER-II)

INSTRUCTIONS FOR THE STUDENTS HAVING ATKT IN INTERNALS / PRACTICALS

1. Date of Submission of the Projects- 04 September, 2024
2. Timings 1:30 PM to 2:30 PM. Reporting time for students: at least 10 minutes before the mentioned time. Venue: Computer Lab.
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.
   Students should enclose a photocopy of the ATKT fee paid receipt along with each of his projects.
7. On the date of submission there will be a viva voce on the given questions/topics.
8. If the student fails to present himself on the given date and time he will be marked ABSENT for the said subject.
9. Any Submissions after the above mentioned date and time will not be accepted and entertained under any circumstances.

   NOTE - Student who has paid ATKT fees for internal component but has not been allotted questions or has any query is requested to contact Ms. Rupali Mishra on or before, 31 August 2024 by mailing on bscit@dalmialionscollege.ac.in

Ms. Rupali Mishra   **CA. Durgesh Kenkre**   **Ms. Subhashini Naikar**   **Prof. (Dr.) D. N. Ganjewar**

(Coordinator - BSc IT)   **Exam Convener**   **Vice- Principal, SFC**   **(Principal)**

DI/N-STD/GEN/00

INTERNAL EXAM QUESTIONS

USIT201 Object Oriented Programming with C++	103	**BAIT KALAYANI KESHAV** 1. What is a variable? How to declare and initialize a variable? Give an example. 2. Explain the object-oriented programming language. State two examples. 3. Explain the switch case with an example. 4. Write a short note on an arrays in cpp. **5.** Describe the importance of Type Conversion.
USIT201 Object Oriented Programming with C++	129	**MISHRA SHREYA HITENDRA** 1. What are loops? Explain while and do while loop with an example. 2. Write a program in CPP to swap 2 numbers. 3. Write a short note on multidimensional arrays. 4. Explain hierarchical inheritance with help of a suitable example. 5. Explain class and objects in cpp with examples.
USIT201 Object Oriented Programming with C++	140	**PATIL JIGNESH SUDHAKAR** 1. Explain continue statement with an example 2. What is a function? Explain overloaded function. 3. Write the different advantages and various applications of OOPS. 4. Write a short note on abstraction and encapsulation in OOPs. 5. Write a short note on formatted Input / Output in C++.
USIT201 Object Oriented Programming with C++	141	**PAUL NIKITA DILIP** 1. What is constructor and destructor in cpp. 2. Explain relational operators in cpp by giving an example? 3. What is virtual function? Explain with help of an example. 4. Explain the implementation of class in cpp. 5. Explain exception handling mechanism in C++ with suitable examples.
USIT201 Object Oriented Programming with C++	160	**SINGH NITESH MANOJ** 1. Define constructor. Enlist and explain types of constructor in C++. 2. Write a short note on formatted Input / Output in C++. 3. Write short note on base class and derived class. How is the derived class defined? Give its syntax. 4. Explain the concept of string concatenation with suitable example program. 5. Write down the rules for operator overloading .
Object Oriented Programming with C++ USIT201	165	**RAJPUT VIJAY BHAWAR SINGH** 1. Explain the concept of this pointer with example? 2. Discuss structure of C++ program with appropriate examples. 3. Write a C++ program to find the sum of the first 10 even numbers. 4. Explain with example multilevel inheritance in C++. 5. What is the difference between protected and private members?

USIT201 Object Oriented Programming with C++	170	SHAIKH AYAAN IQBAL 1. Write a program in CPP to find the factorial of a number using for loop. 2. Explain the difference between keywords and identifiers with example. 3. How we call Private data member in C++? 4. Explain unary operators in cpp with examples. 5. What is a recursive function? Explain the concept with an example program.
USIT202 MICROPROCESSOR ARCHITECTURE	160	SINGH NITESH MANOJ 1. What are external peripherals and its characteristics. 2. Explain POP instruction in detail with an example. 3. Explain in detail functions of 8051 ports. 4. Explain any five Arithmetic Group Instructions. 5. Write a short note on:- a.) Register addressing mode b.) Immediate addressing mode
USIT202 MICROPROCESSOR ARCHITECTURE	170	SHAIKH AYAAN IQBAL 1. Draw a neat label functional block diagram of 8085 microprocessor and explain the flags of the flag register. 2. Explain the timing diagram of the Memory Read Cycle. 3. Write a short note on:- a.) Register indirect addressing mode b.) Implied or implicit addressing mode. 4. Write a short note on classification of memory.. 5. Distinguish between Memory-Map I/O and I/O Map I/O.
USIT203 WEB PROGRAMMING	140	PATIL JIGNESH SUDHAKAR 1. Explain inline CSS with the help of an example. 2. Write short note on URL. 3. Write javascript code to demonstrate the use of document.write method. 4. Explain PHP arithmetic operators in brief. 5. Explain PHP function with 2 parameters.
USIT204 NUMERICAL AND STATISTICAL METHODS	153	VISHWAKARMA PRIYANSHU RAJESH 1. Solve the following simultaneous equations using Gauss-Jordan method. 2x + 4y − 6z = −8 x + 3y + z = 10 2x − 4y − 2z = −12 2. Construct Forward Difference table for y = $x2$ in x = 1(2)13 3. Solve equation x3 − 5x − 7 = 0, using Newton-Raphson method. (x0 = 2.). 4. Evaluate $0 - 7\int$ (x + 12)dx using Simpson's 1/3 rule, take h = 1. 5. Discuss applications of Regression analysis

USIT204 NUMERICAL AND STATISTICAL METHODS	170	SHAIKH AYAAN IQBAL 1. Truncate given numbers to two decimal places: a) 334.032 b) 56.3768 2. Solve the following simultaneous equations using Gauss-Jordan method. $2x + 6y - z = -14$ $5x - y + 2z = 29$ $-3x - 4y + z = 4$ 3. Explain Absolute error, Relative error and Percentage error using suitable formulas. 4. Minimize $Z = 2x + 3y$ Subject to, $3x + 10y \geq 150$ $4x + 5y \geq 150$ $x, y \geq 0$. Solve Graphically. 5. Explain Round off error and Truncation error with one example for each.
USIT205 GREEN IT	170	SHAIKH AYAAN IQBAL 1. What is intranet? What makes up an intranet? 2. Explain the role of Chief green officer. 3. Explain the various methods to clean hard drives. 4. Explain in brief low power computers. 5. List any 8 functions of green IT based applications.

PRACTICAL EXAM QUESTIONS

	OBJECT ORIENTED PROGRAMMING WITH C++ (PRACTICAL)	
USIT2P 1		
	129 1. Define Constructor and its types 2. Write a C++ Program to allocate memory dynamically for an object of a given class using the class's constructor. 3. Explain Friend () with one example.	MISHRA SHREYA HITENDRA
	130 1. OOAD Model with explanation 2. Difference between method overloading and method overriding 3. A. Write a C++ program to find the greatest of three numbers.	MISHRA SHREYANSH AJAYKUMAR

		B. Write a C++ program to find the sum of even and odd n natural numbers	
		134 1. Define basics concepts of OOPS 2. State about Inheritance and explain all the types of Inheritance 3. Write a C++ Program that illustrates multiple inheritance.	NAHARIA RUDRAKSHA DILIP
		140 1. Compare between POP and OOPS 2. Give the structure of C++ Program 3. Write C ++ program which show the use of function overloading	PATIL JIGNESH SUDHAKAR
		153 1. Features of OOPS. 2. Explain Polymorphism. Explain all types with examples. 3. Write C++ programs to create array of objects	VISHWAKARMA PRIYANSHU RAJESH
		162 1. Define Virtual function and give rules of Virtual Function 2. What is object slicing? 3. Write a C++ program illustrating the use of virtual functions in class.	SAHANI SUMEET CHANDRAMNI
		164 1. Explain Constructors and Destructors 2. Write a C++ program. Pointer to derived class in single inheritance. 3. Write a C ++ programs Pointer to derived class in multilevel inheritance	TRIPATHI KUSHAL SHAILESH
		170 1. Explain File Handling Functions 2. Explain Array 3D Array with Initialization and Declaration. 3. Write a C++ program to implement I/O operations on characters. I/O operations includes inputting a string, Calculating length of the string, Storing the String in a file, fetching the stored characters from it, etc.	SHAIKH AYAAN IQBAL
USIT2P 2	**FUNDAMENTALS OF MICROPROCESSOR AND MICROCONTROLLERS (PRACTICAL)**		
		140 1. Draw the architecture of 8085 Microprocessor 2. Write a program for simply subtract two 8 – bit numbers. 3. 8085 memory Segment	PATIL JIGNESH SUDHAKAR
		170 1. Draw the architecture of 8051 Microcontroller	SHAIKH AYAAN IQBAL

	2. Write a program to sort given 10 numbers from memory location 2200H in the ascending order. 3. Explain with a diagram of Memory map in Microcontroller.		
USIT2P3	**WEB APPLICATIONS DEVELOPMENT (PRACTICAL)**		
	124 1. Create a Webpage for text formatting tags. 2. Explain types of CSS with examples. 3. Difference between HTML and HTML5	KANOJIA SUNNY ARVIND	
	140 1. Explain table tag with all its attributes and properties. 2. Selectors in CSS give an example. 3. Describe DOM Properties and Methods.	PATIL JIGNESH SUDHAKAR	
	153 1. Using JavaScript, design a web page to accept a number from the user and print its Factorial. 2. Give the information in brief about Operators. 3. Explain form tag with all its attributes.	VISHWAKARMA PRIYANSHU RAJESH	
	160 1. What is WWW and types of URLs? 2. Explain HTML layouts with examples. 3. Explain PHP data types and Variables.	SINGH NITESH MANOJ	
	164 1. Write a JavaScript program to display all the prime numbers between 1 and 100. 2. Explain Event handling in Javascript. 3. Write a PHP program to display the following Binary Pyramid: 1 0 1 1 0 1 0 1 0 1 1 0 1 0 1	TRIPATHI KUSHAL SHAILESH	
	170 1. Explain Image tag with all its attributes and properties. 2. What is Form tag ? Design a web page with a form that uses all types of controls. 3. What are Cookies ? Explain BOM.	SHAIKH AYAAN IQBAL	
	138 1. Explain void keyword in Java Script? 2. Create a webpage for all controls of form tags . 3. Design a web page embedding image, audio and video.	PANDEY PRADEEPKUMAR VIJAYKUMAR	
USIT2P4	**NUMERICAL METHODS (PRACTICAL)**		

	140 1. Program to evaluate ex using infinite series 2. Program for solving linear systems of equations using Gauss Seidel method. 3. Program to find solution of Laplace's equation.	PATIL JIGNESH SUDHAKAR
	170 1. Program for multiple linear regression. 2. Program for numerical integration using Simpson's 1/3rd rule. 3. Program to solve algebraic and transcendental equation by Newton Raphson method.	SHAIKH AYAAN IQBAL
USIT2P5	**GREEN IT (PRACTICAL)**	
	129 1. Explain Green Cloud Computing in detail. 2. Define the terms - a. Refurbishing b. Recycling C. Disposal 3. Explain EDI in detail.	MISHRA SHREYA HITENDRA
	140 1. Define virtualization and Data Deduplication. 2. State the use of Power Cost. Explain Causes of Costs 3. Explain in detail about Green software.	PATIL JIGNESH SUDHAKAR
	170 1. Give the PROS and CONS for each Recycling method in Green IT. 2. Explain the various SMART Goals for staying Green. 3. Define the terms - EPEAT, RoHS, Energy Star, Evolution, HP's Solution, Low Power Computers.	SHAIKH AYAAN IQBAL