Notice No.: 1181   Date: 14/03/2024

NOTICE

All the Students of F.Y.B.Sc.CS SEM II are hereby informed that, the last date of submission of Internal Assignment is on or before **Wednesday, 20th March 2024**. No Assignment will be accepted after mentioned date.

Note:

1. The topics for the Assignment are available on the college website.
2. The assignment should be handwritten and submitted offline to the respective class teacher.
3. Assignment should be of minimum 10 pages.

Principal

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1. Hon. Secretary / C.E.O., Saket Gyanpeeth
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Subject: Design & Analysis of Algorithms

1. Write a note on Asymptotic Notation.
2. Types of Analysis.
3. Difference between Iteration & Recursion.
4. Explain Bubble sort Algorithm

Subject: Advanced Python Programming

1. What is regular expression?
2. What are the types of regular expression?
3. What is error and its type in python?
4. Explain exception Handling

Subject: Introduction to OOPs using C++

1. Explain the structure of C++ program.
2. Write a C++ program to demonstrate the class & object?
3. Write a C++ program to demonstrate for loop & while loop?
4. Write a short note on object oriented concepts.

Subject: Database Systems

1. Explain the term data independence & its type?
2. Explain the features of DBMS?
3. What is data model? Explain various type of data model.
4. Write a note on key attributes.

Subject: Calculus

1. Evaluate $\int x \cos x \, dx$
2. Find $\frac{dy}{dx}$ is y is defined implicitly as function of x by the following equation –
   $x^2 + xy - y^2 + 7x - 3y - 26 = 0$
3. Using Simpson's rule with n = 4 to approximate $\int_1^3 \frac{1}{x} \, dx$
4. Solve the differential equation $x + y \frac{dy}{dx} = x^2 + y^2$

Subject: Statistical Methods

1. A card is drawn from a pack of 52 cards, given that it is a red card, what is the probability that it is a face card?
2. The p. d. f. of a continuous random variable x is

   $f(x) = k, \ 0 < x < 5$

   $\quad = 0,$ otherwise

   Find k and $P[X < 2]$

3. The mean lifetime of a sample of 100 fluorescent light bulbs produced by a company is found to be 1570 hours with a standard deviation 120 hour test the hypothesis that the mean lifetime bulbs produced by the company is 1600 hours the alternative hypothesis that it is less than 1 at 5 % level or significance.
4. A Quiz consists of 10 MCQ. Each question has 5 possible answers, only one of which is correct. Candidate plans to guess the answer to each question. Find the probability that candidate
    a. Gets one answer correct
    b. All 10answers correct.

Subject: E-Commerce & Digital Marketing1.

1. What is Search engine Optimization? Explain techniques Of SEO?
2. What is Web Analytics process to optimize the website? Write importance of web analytics.
3. What is Google adwords? What are the features of a strong Ad.
4. What is content marketing? What are the different types of contents?