SCHOOL OF DISTANCE EDUCATION

UNIVERSITY OF KERALA

First Semester BCA/ B.Sc.CS(2020 Admission)

Assignment Topics and Case Analysis

ASSIGNMENT TOPICS

Speaking and listening skills (EN 1111.4)

1. Write about classifications of English vowels and importance of cardinal vowels. Include vowel diagram
2. Write dialogues for the following situations about 100 words each:
   a.Dialogue between a teacher and a studentabout his/her studies.
   b. Between two passengers in a bus regarding the price of petrol and diesel
   c.Career counseling of a student by a counselor.
   d. Discussion between mother and father regarding their son's online gaming
3. Differentiate listening and hearing in detail.
4. Write an essay about the current pandemic condition of the world. How is covid 19 affecting your life and what are the precautions are to be taken against covid 19.
5. Explain in detail all the classifications of English consonants with diagrams.

Mathematics I (MM 1131.10 /MM 1131.9)

1. Find the Differential equation that describes the family of circles passing through the Origin.
2. Solve the following
   a) $(D^3 - D^2 - 6D)y = x^2 + 1$
   b) $(D + 4)y = Cos2x$
3. Form the differential equation by eliminating the constraints h and k from
   $$z^2 + (x - h)^2 + (y - k)^2 = C^2$$
4. State the following
   a) Mean Value theorem
   b) Rolle`s theorem
   c) Wilson`s theorem
   d) Euclidean algorithm

5. Solve by the Method of Laplace transform the equation

$$y''' + 2y'' - y' - 2y = 0 \text{given} y(0) = y'(0) = 0 \text{ and } y'''(0) = 6.$$

Introduction to IT(CS 1121/CP 1121)

1. Explain the classification of computer.
2. What is Latex. Explain.
3. Write a note on open source software and free software. Compare it and give few examples for each.
4. Write a detail note on secondary storage devices.
5. What are the requirements needed for a network? Explain.

Digital Electronics (CS 1131/CP 1131)

1. What is race around condition?How it overcomes?
2. Differentiate between SOP and POS?
3. What are the characteristic equations of flip-flop?
4. Explain Digital ICs?
5. Compare different Logic families.

Introduction to Programming (CS 1141/CP 1141)

1. Write an algorithm to find the largest of three numbers. And draw is flowchart.
2. Discuss various data types used in C.
3. Explain about arrays and its types with example.
4. Differentiate Call by value and Call by reference with example.
5. Write a program to create a file having 20 natural numbers. And separate odd and even numbers in different files.

CASE ANALYSIS

Speaking and Listening skills (EN 1111.4)

1. What are the major problems faced by non native speakers when trying to communicate in English.
2. Suggest a few methods to improve English speaking skills.

Mathematics I (MM 1131.10 /MM 1131.9)

1. a) Find the smallest number with 24 divisors.
   c) Show that $n(n+1)(2n+1)$ is divisible by 6.
2. a) Form the differential equation by eliminating the constraints h and k from

$$z^2 + (x-h)^2 + (y-k)^2 = C^2$$

b)Find $L^{-1}[\frac{S^2}{(S^2+a^2)\ (S^2+b^2)}]$

Introduction to IT(CS 1121/CP 1121)

1. Write a detail note on Computer Viruses & Protection
2. Explain about various browsers with example.

Digital Electronics (CS 1131/CP 1131)

1. Explain about
    a) BCD
    b) ASCII
    c) Floating Point Representation
2. Determine the range of numbers in 1`s complement and 2`s complement for word length of 8bit and 16 bit.

Introduction to Programming (CS 1141/CP 1141)

1. What is an operator? Explain the arithmetic, relational, logical, and assignment operators in C language.
2. Explain any five string manipulation library functions with examples.

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