

**FIRST ASSIGNMENT
JUNE SEMESTER 2021**

**BACHELOR OF COMPUTER SCIENCE (HONS.)
(IN COLLABORATION WITH IUKL)**

**DATA STRUCTURE AND ALGORITHM
(CSC 2516)**

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GENERAL INSTRUCTIONS

1. This question booklet consists of 2 pages including this page.
2. There is one **SECTION** in this question booklet.
3. Please submit assignment solution in **SOFT COPY (PDF FORMAT)**.
4. **The Deadline for Submission of Assignment is on 13th July.**



SECTION A

(30 Marks)

There are THREE (3) Questions in this section. Answer all of them.

1. Briefly explain the following terms:-

a. Abstract Data Type (ADT)

(2 marks)

b. Data Structure

(2 marks)

c. Array

(2 marks)

d. Stack

(2 marks)

e. Queue

(2 marks)

2.

a) Write an algorithm for Binary search.

(4 marks)

b) Write a C program to implement Binary search.

(4 marks)

c) Explain the best case and worst case efficiency of binary search algorithms.

(2 marks)

3. With proper diagram, explain the following:

a) Concept of hashed list search.

(5 marks)

b) Technique to resolve collisions in hashed list search.

(5 marks)

*****END OF QUESTIONS*****