

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSE 335 & Multimedia System Design**

**Course Teacher: Subhra Prosun Paul (01675932517, subhra.paul@royal.edu.bd)**

Assignment

Assignment Topic:

Give the concept on watermarking. Explain watermarking principles and requirements. How can you apply watermarking technologies in text, audio and video information?

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSE 311 & Database Management System**

**Course Teacher: Subhra Prosun Paul (01675932517, subhra.paul@royal.edu.bd)**

Assignment

Assignment Topic:

Explain Codd's Rule of relational database management system. Classify different types of attribute with proper examples.

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSE 133 & Data Structure and Algorithm**

**Course Teacher: Subhra Prosun Paul (01675932517, subhra.paul@royal.edu.bd)**

Assignment

Assignment Topic:

'Pre-order, In-order and Post-order are the three main techniques to traverse a binary tree'- Explain the statement. Give the concept of circular linked list with figure. Suppose the numbers 7, 5, 1, 8, 3, 6, 0, 9, 4, 2 are inserted in that order into an initially empty binary search tree. The binary search tree uses the usual ordering on natural numbers. What is the in-order traversal sequence of the resultant tree?

ROYAL UNIVERSITY OF DHAKA  
Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: CSE 135 & Discrete Mathematics**  
**Course Teacher: Subhra Prosun Paul (01675932517, subhra.paul@royal.edu.bd)**

Assignment

Assignment Topic:

Explain different algebraic laws of propositional logic. Give the concept on simple proposition and compound proposition with examples. Given that  $S$  is a set such that  $S = \{x \in \mathbb{R} : x > 0\}$ , explain why  $S$  is NOT a field.

ROYAL UNIVERSITY OF DHAKA  
Program: MSCSE  
**Course Code & Title: MS 593 & Discrete Mathematics**  
**Course Teacher: Subhra Prosun Paul (01675932517, subhra.paul@royal.edu.bd)**

Assignment

Assignment Topic:

Explain algebraic structure and abelian group with proper examples. Explain why  $Z$  is ring. State and prove Associative laws of propositional logic.

ROYAL UNIVERSITY OF DHAKA  
Program: MSCSE  
**Course Code & Title: MS 501 & Structured Programming Language**  
**Course Teacher: Subhra Prosun Paul (01675932517, subhra.paul@royal.edu.bd)**

Assignment

Assignment Topic:

Explain the concept on nesting of loop with example. 'Out of three loops in C programming language, for loop is the most famous'-Explain the statement. Describe conditional operator and logical operator in C programming language. What are the different features of switch statement in C programming language?

ROYAL UNIVERSITY OF DHAKA  
 Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: EEE 131-Digital Electronics**  
**Course Teacher: Ahmed Abdullah (01680076500, ahmed.abdullah@royal.edu.bd)**

## Assignment

Assignment Topic:

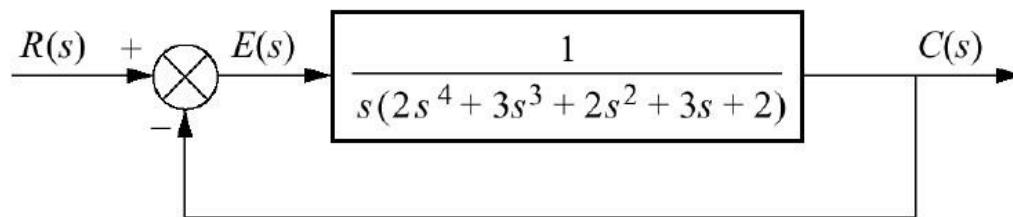
Explain the process of Analog to Digital conversion. Draw Simplified block diagram of a digital cellular phone.

ROYAL UNIVERSITY OF DHAKA  
 Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: EEE 109 & Microcontroller**  
**Course Teacher: Ahmed Abdullah 01680076500, ahmed.abdullah@royal.edu.bd**

## Assignment

Assignment Topic:

Draw the feedback control signal from the following system:



ROYAL UNIVERSITY OF DHAKA  
 Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: EEE 103: Electronics Engineering**  
**Course Teacher: Ahmed Abdullah 01680076500, ahmed.abdullah@royal.edu.bd**

## Assignment

Assignment Topic:

What is Zener diode? Explain the temperature affect on diode.

ROYAL UNIVERSITY OF DHAKA

Program: MSCSE

**Course Code & Title: MS 592 & System Analysis & Design**

**Course Teacher: Rowjatul Zannat Eshita**

**(Contact No: 01675742407, Mail: [rowjatul.eshita@royal.edu.bd](mailto:rowjatul.eshita@royal.edu.bd) )**

Assignment Topic:

What is competitive strategy? Write down the Benefits of Top-Down Planning. How can you find Net Benefit and Net Present Value in feasibility study? Describe different characteristics of distributed systems. What functions Good Documentation should have?

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSIT 215 - Computer Organization & Architecture (Evening)**

**Course Teacher: Rowjatul Zannat Eshita**

**(Contact No: 01675742407, Mail: [rowjatul.eshita@royal.edu.bd](mailto:rowjatul.eshita@royal.edu.bd) )**

Assignment Topic:

Differentia Internal and External memory. Show the Memory Hierarchy of computer organization. Show the steps of Four-segment Instruction CPU pipelining. Describe the major difficulties that cause the instruction pipeline.

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSE 235 - Software Engineering (Day+Evening)**

**Course Teacher: Rowjatul Zannat Eshita**

**(Contact No: 01675742407, Mail: [rowjatul.eshita@royal.edu.bd](mailto:rowjatul.eshita@royal.edu.bd) )**

Assignment Topic:

How to design a software project for tracking? What is earned value analysis in software engineering? How to calculate it? Write down the roles and guidelines of formal technical review of a software project.

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSE 109: Computer Application (BBA)**

**Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)**

Assignment

Assignment Topic:

Briefly describe operating systems software and applications software with examples.

Convert hexadecimal number  $(1A8B)_{16}$  to binary number. Briefly describe MAN and WAN in computer networks. Explain ring topology and mesh topology.

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSIT 325: Management Information System (Eve)**

**Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)**

Assignment

Assignment Topic:

Why enterprise resource planning (ERP) and customer relationship management (CRM) are required? Briefly describe C2B, B2G and G2B business models. Explain switching system (SS) and base station system (BSS).

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSE 337: Pattern Recognition (Eve)**

**Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)**

Assignment

Assignment Topic:

Explain details about supervised learning, unsupervised learning and OCR. Briefly describe about joint probability. Write down advantages and disadvantages of Bayesian approach. What is Bayes theorem? Prove Bayes' theorem.

ROYAL UNIVERSITY OF DHAKA

Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: MS 602: Visual & Internet Programming****Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)**

## Assignment

Assignment Topic:

Briefly describe Web Documents with example. Explain details about POP3, IMAP4 and MIME. What are threats, vulnerabilities, attack and control? Define DNS, domain name, primary server and secondary server.

ROYAL UNIVERSITY OF DHAKA

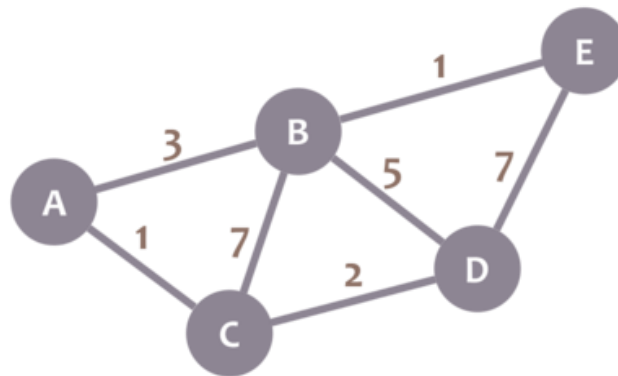
Program: B.Sc. (HON'S) in CSE/CSIT

**Course Code & Title: CSE 231: Computer Algorithm (Day)****Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)**

## Assignment

Assignment Topic:

Evaluate the postfix notation of  $4\ 4\ +\ 2\ /\ 3\ 2\ -\ 1\ 0\ +\ /\ +$ . How does breadth first search (BFS) work? Explain it with an example. Sort the array  $8\ 4\ 6\ 9\ 2\ 3\ 1$  using bubble sort. Find the minimum spanning tree (MST) of below graph using the Dijkstra algorithm.



ROYAL UNIVERSITY OF DHAKA  
Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: CSIT 331, Advance Computer Network (Eve)**  
**Course Teacher: Md. Nur-E-Arefin (01675025549, nur.arefin@royal.edu.bd)**

Assignment

**Assignment Topic:**

What is application layer? What are the protocols of application layer? Write down the differences between TCP and UDP. Discuss about network layer functionalities and features. Discuss transmission Impairment.

ROYAL UNIVERSITY OF DHAKA  
Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: CSE 233, Operating System (Day)**  
**Course Teacher: Md. Nur-E-Arefin (01675025549, nur.arefin@royal.edu.bd)**

Assignment

**Assignment Topic:**

Explain the resource allocation graph. Write a note on safe state. Explain how deadlocks are detected and corrected. Which hardware is required for paging? compare demand paging and segmentation.

ROYAL UNIVERSITY OF DHAKA  
Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: CSE 323, E-Commerce (Eve)**  
**Course Teacher: Md. Nur-E-Arefin (01675025549, nur.arefin@royal.edu.bd)**

Assignment

**Assignment Topic:**

Analyze the following E-Commerce websites: shebaxyz, banglashoppers, and adyan mart (include SWOT analysis). Explain B2C, C2C and C2B E-Commerce system. Explain the applications of E-Commerce.

ROYAL UNIVERSITY OF DHAKA  
Program: B.Sc. (HON'S) in CSE/CSIT  
**Course Code & Title: CSE 121, Structured Programming Language (Eve)**  
**Course Teacher: Md. Nur-E-Arefin (01675025549, nur.arefin@royal.edu.bd)**

Assignment

**Assignment Topic:**

With the example of C codes explain the concept of if, for, while, do-while and switch statement. Write down the differences between break and continue statement. What do you understand by nested if? Give an example of nested if.