

ROYAL UNIVERSITY OF DHAKA

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

Course Code & Title: CSIT 107: Optical Fiber Communication (Eve)**Course Teacher: Ahmed Abdullah (01680076500, ahmed.abdullah@royal.edu.bd)**

Assignment

Assignment Topic:

Sketch the following equations:

- I. $X(n) = U_r(n) - U_r(n-3) - 4U$
- II. $X(n) = U(n) - U(n+4) + \partial(n-3)$
- III. $X(n) = 2^n [U(n) - U(n-6)]$

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA

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

Course Code & Title: CSE 231: Computer Algorithm (Day)**Course Teacher: Ahmed Abdullah 01680076500, ahmed.abdullah@royal.edu.bd**

Assignment

Assignment Topic:

Solve the following dataset using linear regression.

Dataset: https://www.fhfa.gov/HPI_master.csvSubmission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA

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

Course Code & Title: MS 611: Computer Graphics & Animation (M.Sc.)**Course Teacher: Ahmed Abdullah 01680076500, ahmed.abdullah@royal.edu.bd**

Assignment

Assignment Topic:

Describe quadtree, k-d-trees, BSP trees with example. Explain gray scale buffer.

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA

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

Course Code & Title: MS 671: Object Oriented Programming (M.Sc.)**Course Teacher: Ahmed Abdullah 01680076500, ahmed.abdullah@royal.edu.bd**

Assignment

Assignment Topic:

Write a python code for design a 2D calculator.

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: GED 102: Research Project Proposal
Course Teacher: Ahmed Abdullah, (01680076500, ahmed.abdullah@royal.edu.bd)

Assignment

Assignment Topic:

Define research project proposal. Discuss the structure of a research proposal.

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: EEE 103 - Electronics Engineering
Course Teacher: Kanti Bhusan Roy Kawshik (01924008069, kanti.kawshik@royal.edu.bd)

Assignment

Explain Junction Diode Symbol and Static I-V Characteristics. Explain Forward Biased PN Junction Diode and its characteristics.

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSIT 211 - Digital Logic Design
Course Teacher: Kanti Bhusan Roy Kawshik (01924008069, kanti.kawshik@royal.edu.bd)

Assignment

Make NAND and NOR Gate Equivalent circuits and also write down Truth table of both circuits. Make a circuit of 2-input Transistor OR Gate.

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: EEE 101 - Electrical Engineering
Course Teacher: Kanti Bhusan Roy Kawshik (01924008069, kanti.kawshik@royal.edu.bd)

Assignment

1. Solve these two circuits by using ohm's law. For the first circuit, consider $I = 2A$.

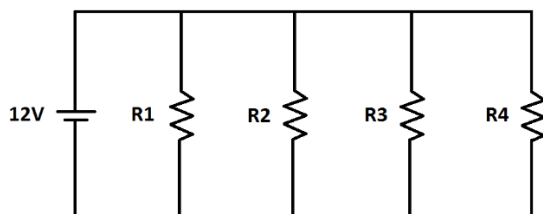


Fig 1

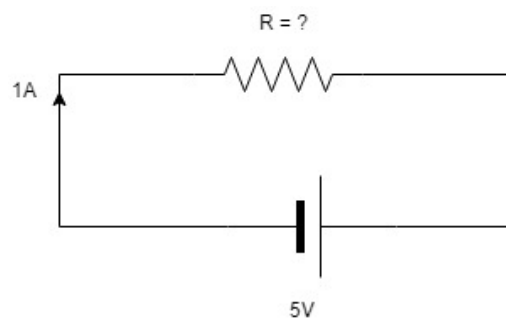


Fig 2

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA

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

Course Code: CSE-111, Course Name: Computer Fundamentals**Course Teacher: Shaikh Afnan Birahim (01711027668, afnan.birahim@royal.edu.bd)****Assignment for Mid-Term****Assignment Topic:**

Differentiate between data and information. Draw a block diagram to illustrate basic organization of a computer system and explain the functions of various units.

Convert the following numbers to decimal numbers: (i) 2573_6 (ii) 1234_9

Why BCD code was extended to EBCDIC?

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA

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

Course Code: CSIT-325, Course Name: Management Information System**Course Teacher: Shaikh Afnan Birahim (01711027668, afnan.birahim@royal.edu.bd)****Assignment for Mid-Term**

Briefly describe about cloud computing. Explain Porter's value chain. How can information technology support a company's business processes and decision making and give it a competitive advantage? Give examples to illustrate your answer. What are your major concerns about computer crime and privacy on the Internet? What can you do about it?

Submission deadline: 21st October, 2021.

ROYAL UNIVERSITY OF DHAKA

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

Course Code: MAT-105, Course Name: Statistics and Probability**Course Teacher: Shaikh Afnan Birahim (01711027668, afnan.birahim@royal.edu.bd)****Assignment for Mid-Term**

Write down the disadvantages of geometric and harmonic mean. According to you which is the best measures of central tendency and why? Explain. Find the appropriate measures of central tendency with justification from the following data:

20000, 25, 16, 7, 256, 9, 7, 0, -25, 7

Draw a frequency curve using the data of no. of miscalls of a mobile service provider's office per hour

Class Interval	0-5	5-10	10-15	15-20	20-25
Frequency	11	25	44	32	23

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSE 339: Simulation & Modeling (Eve)
Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)

Assignment

Assignment Topic:

What is simulation and system? Explain different types of simulation models. Find the area of an irregular figure using Monte Carlo method. Determine the value of pi (π) using Monte Carlo method.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSIT-333: Computer Graphics [Eve]
Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)

Assignment

Assignment Topic:

What are the steps of a simple computer animation? Briefly explain Raster animation with its advantages and disadvantages? Why is morphing used in animation? What's the difference between LED and LCD in computer graphics?

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSE-323: E Commerce [Eve]
Course Teacher: Hasan Abdullah (01681523656, hasan.abdullah@royal.edu.bd)

Assignment

Assignment Topic:

Briefly explain E-commerce with its advantages and disadvantages? What is B2C, C2B and C2C business model? Why do we use WAP? What is supply chain management and why is it important?

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSE 323: E-Commerce (DAY)
Course Teacher: Nazia Nuzhat (01705829945, nazia.nuzhat@royal.edu.bd)

Assignment

Assignment Topic:

Answer the following questions:

- What revenue model does Facebook use? Describe about it. What other revenue models might be appropriate for Facebook and why?
- What are the eight unique features of E-commerce Technology? Write a short summary for any 3.

- c) What are the differences between Business Plan and Business Model?

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSE 121- Structured Programming Language (EVE)
Course Teacher: Nazia Nuzhat (01705829945, nazia.nuzhat@royal.edu.bd)

Assignment

Assignment Topic:

1. Answer the following questions:

- What is function? Describe about Input and output functions in C language with proper example.
- Describe = vs == in boolean expressions with an example.
- Write the output for the following program:

```
#include <stdio.h>
int main ( void )
{
    int a, b, c ;
    a = 5 ;
    b = 7 ;
    c = a + b ;
    a = 6 ;
    printf ("a = %d , b = %d ,c = %d \n " , a , b , c ) ;
    return 0 ;
}
```

Submission deadline: 21st October, 2021

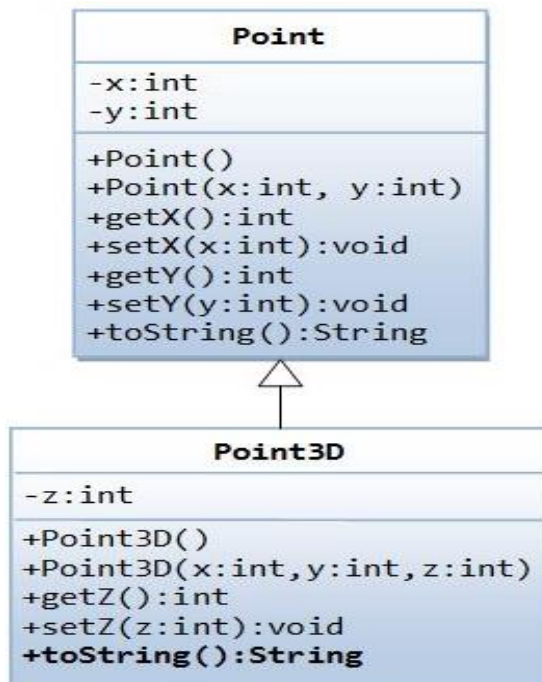
ROYAL UNIVERSITY OF DHAKA
Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSE 213- Object Oriented Programming Language (EVE)
Course Teacher: Nazia Nuzhat (01705829945, nazia.nuzhat@royal.edu.bd)

Assignment

Assignment Topic:

1. Answer the following questions:

- What is Runtime Polymorphism?
- Describe about Data types in Java programming.
- Convert UML to Java code:



Submission deadline: 21st October, 2021

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

Assignment Topic:

1. Define Operating System? Give a conceptual view of a computer system. Differentiate between Multitasking & Multiprogramming. What is Process? Explain Process Control Block (PCB). What are the differences between User Level & Kernel Level Thread? Explain logical versus physical address Space. Explain paging. What are the file operations? Explain different file allocation methods.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code & Title: CSE 133 - Data Structure & Algorithm (Eve)
Course Teacher: Md. Nur-E-Arefin (01675025549, nur.arefin@royal.edu.bd)
 Assignment

Assignment Topic:

1. What is data structure? What are the classifications of data structure? What is array? What are the types of arrays? Explain every operation of array with appropriate algorithm. Give short notes on stack and queue.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA

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

Course Code & Title: CSE 321 - Computer Peripheral & Interfacing (Eve)
Course Teacher: Md. Nur-E-Arefin (01675025549, nur.arefin@royal.edu.bd)

Assignment

Assignment Topic:

1. What is computer peripheral device? Explain different input and output devices with appropriate picture. Describe memory and I/O interfacing. Explain with diagram: 8255, 8257 and 8259 interfacing chips.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA

Program: MSCSE

Course Code: MS 691 and Course Title: Data Mining & Warehousing**Course Teacher: Rowjatul Zannat Eshita****(Contact No: 01675742407, Mail: rowjatul.eshita@royal.edu.bd)**

Assignment

Assignment Topic:

Define data mining. Discuss about different challenges while implementation of data mining. What is OLTP and OLAP? Show the steps to implement a Data Warehouse. Write down the advantages and disadvantages of data mining and data warehousing.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA

Program: MSCSE

Course Code: MS 615 and Course Title: Digital Signal Processing**Course Teacher: Rowjatul Zannat Eshita****(Contact No: 01675742407, Mail: rowjatul.eshita@royal.edu.bd)**

Assignment

Assignment Topic:

- What is signal? Describe basic operations on signals.
- Draw a signal to describe the following Unit Impulse Function: $x[n] = \delta[n] - 2\delta[n-2] + 3\delta[n-3] - 4\delta[n+4]$ and draw a signal using Power Function, $x[n] = (-0.5)^n$.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA

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

Course Code: EEE 109 and Course Title: Microcontroller (DAY & EVENING)**Course Teacher: Rowjatul Zannat Eshita****(Contact No: 01675742407, Mail: rowjatul.eshita@royal.edu.bd)**

Assignment

Assignment Topic:

- Distinguish between microprocessor and microcontroller. Discuss about different special feature registers of 8051. Draw a circuit for simple 3-bit counter and a timing diagram for 8-bit registers for the input 11001010.

- Explain the following instructions:

- i. SJMP LABEL_X, where Offset is 5.
- ii. MOV DPTR, #0F22Ch
- iii. MOVX B, @DPTR
- iv. XCH R3, @R0
- v. XRL R4, 5Ah
- vi. PUSH 0Ah
- vii. MOVC B, @A+DPTR
- viii. ORL A, @R6
- ix. XRL R4, 0Bh
- x. MUL AB

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code: CSE 321 and Course Title: Computer Peripheral & Interfacing (DAY)
Course Teacher: Rowjatul Zannat Eshita
 (Contact No: 01675742407, Mail: rowjatul.eshita@royal.edu.bd)

Assignment

Assignment Topic:

- a) What is OMR, OCR and MICR? Describe the layout of hard disk. Discuss the working principle of Membrane keyboard.
- b) Determine the transfer rate, in Mbytes/m, for a hard disk drive, given Rotational speed = 9000 rpm, Sectors per track = 30 and Data per sector = 1024 bytes. Show 3:1 Interleaving for magnetic disk.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code: CSE-231, Course Name: Computer Algorithm
Course Teacher: Md Khirul Islam Badal (01748864767, Khirul.badal@royal.edu.bd)
Assignment for Mid (EVE)

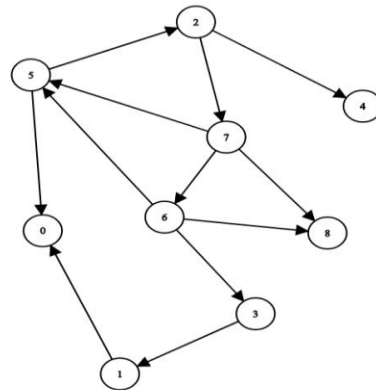
Assignment

Assignment Topic:

- a) Write down the difference between algorithm and pseudocode. Write down the necessary steps of Binary Search Algorithm and Search the 56 in the following array.

23	29	34	50	53	56	60	68	70
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b) What is Graph? Write down the algorithm of Depth First Search Algorithm and traverse the following graph. Source node is '0'.



Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT/HMT/BBA
Course Code: CSE-135, Couse Name: Discreate Mathematics
Course Teacher: Md Khirul Islam Badal (01748864767, Khirul.badal@royal.edu.bd)
Assignment for Mid (EVE)
 Assignment

Assignment Topic:

a) Define quantifiers, universal quantifiers and existential quantifiers by giving an example. What type of sentence is $5+x = 9$? For what value of x it will become a true statement.

b) Define power set and find the power set of $A = \{1, 2, \{ \} \}$ Define the following terms with appropriate truth table (i) Conjunction (ii) Disjunction (iii) conditional (iv) Negation. Define truth table of a statement of two variables which is always true.

Submission deadline: 21st October, 2021

ROYAL UNIVERSITY OF DHAKA
 Program: B.Sc. (HON'S) in CSE/CSIT
Course Code: CSE-221, Couse Name: Microprocessor & Assembly Language
Course Teacher: Md Khirul Islam Badal (01748864767, Khirul.badal@royal.edu.bd)
Assignment for Mid (EVE)
 Assignment

Assignment Topic:

a) What is the difference between Address and Content. What is Bus? Describe the different types of buses with figure. Draw the structure of 8086 microprocessor.

b) What is computer level hierarchy? Describe every level of the computer level hierarchy.

Find the summation of following math

SET A

i. $3F09h + AB2 = ?$

ii. $11001101 + 111011 = ?$

Submission deadline: 21st October, 2021