



NORTHERN COLLEGE

B A N G L A D E S H

CSE 2nd YEAR 4th SEMESTER EXAMINATION, 2020

Database Management System

Subject code: CSE-223

Time----- 1.50 hours

Mid-term Examination-I

Full Marks---30

[N.B. ---- The figures in the right margin indicate full marks. You need to answer **three** questions]

1. a) Define Database. 1
- b) What are the applications of database system? 4
- c) Define with examples 5
- i) Entity
- ii) Entity Sets
- iii) Primary key
- iv) Super key
- v) Candidate key
2. a) Explain E-R model with example. 5
- c) Explain the components of database system structure. 5
3. a) Describe the relational data model with example. 6
- b) Briefly explain the different types of database language. 4
4. a) What are the significant difference between a file processing system and a DBMS. 5
- b) Briefly explain the different types of database language. 4

All the Best

CSE 2nd Batch

19.01.2020



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B A N G L A D E S H

CSE SECOND YEAR FOURTH SEMESTER EXAMINATION, 2020

Microprocessor & Assembly Language

Subject code: 520210

Time----- 1.50 hours

Mid-term Examination-I

Full Marks---30

[N.B. ---- The figures in the right margin indicate full marks. Answer All question properly]

1. a) What is Microprocessor ? 2
- b) Write down the features of 8, 16 and 32 bit microprocessor. 4
- c) Describe the general architecture system of micro computer system. 4
2. a) What is Bus ? 2
- b) What is microcontroller ? 2
- c) Explain the pin diagram of Intel 8085. 6
3. a) Write down the differences between register based and accumulator based microprocessor. 3
- b) Explain the block diagram of Intel 8086 microprocessor. 6
- c) What is a flag register ? 1

All the Best

CSE 10th Batch



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CSE SECOND YEAR FOURTH SEMESTER EXAMINATION, 2020

Design & Analysis of Algorithms

Subject code: 520212

Time----- 1.50 hours

Mid-term Examination-I

Full Marks---30

[N.B. ---- The figures in the right margin indicate full marks. Answer All question properly]

1. a) What is Algorithm ? 2
- b) Define the concept of Algorithm. What is pseudocode ? Write the pseudocode structure for Looping and Conditional statements. 5
- c) What is asymptotic notation ? Explain the time space complexity of an algorithm. 3
2. a) Define Big "O" notation. 2
- b) Distinguish between best-case, average-case and worst-case of an algorithm. 3
- c) Write down an algorithm for adding and deleting item from Stack. 5
3. a) Write down the algorithm of data insertion and deletion from Queue. 4
- b) Write the recursive process of Binary Search algorithm 6

All the Best

CSE 10th Batch



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CSE 2th YEAR 4th SEMESTER EXAMINATION, 2020

Numerical Analysis

Subject code: CSE-417

Time----- 1.50 hours

Mid-term Examination-I

Full Marks---30

[N.B. ---- The figures in the right margin indicate full marks. You need to answer **Three** questions]

1. a) What is numerical analysis? 2
b) Construct bi-section method. 8
2. a) Define algebraic and transcendental equation? 3
b) If $f(x) = x^3 - x^2 + 2 = 0$ find out the root with Newton Rapson Method. 7
3. a) What is false position method? 2
b) Find the polynomial satisfying the relation $y = f(x)$ by $(-1,9), (0,5), (2,3), (5,15)$. Calculate the degree of the poly-nominal directly from the difference table also find $f(3)$. 8
4. a) Write down the different between bi-section and false position method. 4
b) Construct Newton Rapson Method by prove $f(x) = 0$. 6