

# [Decimal and marks remarks](https://assignbuster.com/decimal-and-marks-remarks/)

BMATH1101/BIE1123/BIE1124 ? MATHS FOR COMPUTING/
BIT1113/BIT1114? DIGITAL DESIGN & FUNDAMENTALS

Department: Faculty of Information &CommunicationTechnologyCourse Name: BSEM/BMC/BICT/BBIT/BIT/BGT

Semester: 01
Commence Date: Week 6
Deadline Date: Week 8
Unit Controller / Examiner: Hossein Babaei
Contact Number: 03-8317 8333 ext 8403
E-mail:[email protected]

Objective:

To provide student the basic discretemathematicsconcept that has applications in computerscience. To provide student expose in application of binary numbers.

Learning Outcome:

Upon completion of the assignment, student will be able to:
Apply binary number system.
Apply the principle of mathematical induction.

ANSWER ALL THE QuestionS. [60 marks]

1.
Convert each binary number to its decimal equivalent:
a) 111001012
b) 11011. 101012

[6 marks]

2.
Convert to its binary equivalent:
a) 421. 39062510
b) 231. 62510

[10 marks]

3.
Find the binary answer for the following :
a) (2548 × 558) – (110001012 + 110101012) - FFA16 = b) 110. 0012 - 11. 1112
c) 11. 1012 x 11. 012
d) 100. 00012 ÷ 10. 12

[10 marks]

4.
Find the following difference using complements:
a) 4563610 - 453910
b) 111001112 -110011002
[6 marks]

5.
a) Add 673. 6248 with 74D. 1F316 in octal form.
b) Add 2A5C. EB16 with 4271. 458 in hexadecimal form.
c) Encode the decimal number 34510 using
8-4-2-1 BCD code, d) Encode the numbers 25410, -25410 and +25410 to EBCDIC
codes using
i) Zoned decimal format, ii) Packed decimal format
[10 marks]

6.
a) Find the internal representation of 23510 and -53110 if the computer uses a 32-bit memory location to store the number. b) Find the internal representation of real number
R = - 231. 312510 assuming computer uses 32-bits memory location to store the number.
c) ) Find the internal representation of real number
R = 378. 714310 assuming computer uses 32-bits memory
location to store the number.

[25 marks]

SuBmission information
Student who submits this assignment later than the deadline date stated above will only get 0. 5%. You must submit the work with an assignment cover page stapled together as submission.

Specific Information
The assignment must be hand written with NO cancellation.
This assignment is an individual work and it contributes 15% assignment coursework.

marking criteria
The following is the marks deduction for this assignment:

Late submission = 0. 5% is given regardless of errors/mistakes. Not following question requirements = -0. 5% is given as long as student never follow any of the question requirements. Plagiarism = 0% is awarded immediately.

Let others copy your work = 0% is awarded immediately.
Off topic work = 0% is awarded immediately.

rules and regulations
You are to complete this assignment individually.
You are NOT allowed to work with any other students.
You must write all the step and the solution.
It is reasonable to discuss with others possible general approaches to the given problems. You are NOT allowed to work together to get a detailed solution, to copy a solution, or to give away a solution. If there is too
much collaboration from your common discussion by looking at the solutions, in such instances ofacademicdishonesty may result in you getting zero marks for this piece of assignment. Do NOT let others see your solution.

Do NOT e-mail your solution to anyone.
If someone cheats by using your work, you will be penalized.

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ASSESSMENT BMATH1101/BIE1123/BIE1124 MATHEMATICS FOR COMPUTING BIT1113/BIT1113 DIGITAL DESIGN & FUNDAMENTALS
INDIVIDUAL ASSIGNMENT

No
Criteria
Total
Marks
Marks
Remarks

Question 1
6

Question 2
10

Question 3
10

Question 4
6

Question 5
10

Question 6
25

Format/Punctuality
8

Neatness
5

Total

80

TOTAL MARKS: ( /80)

: \_\_\_\_\_\_\_\_ (15%)
Remarks : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_