

Name: _____

University ID: _____

INSTRUCTIONS

- Make sure to write your name and ID in the first page and every page thereafter.
- The question booklet consists of **4 pages**. Make sure you have all of them.
- Keep quite during the exam. For assistance, raise your hand and an invigilator will come to see you
- Answer the questions in the spaces provided after each question. If you run out of room for an answer, continue on the back of the page.
- The mark of each question is printed next to it.
- Keep in mind that possession or use of mobile phones or any other unauthorized electronic devices in the exam room is strictly prohibited.
- Make sure you read and sign the **Declaration Of Academic Integrity** shown below.

Question:	1	2	3	4	5	6	Total
Points:	9	9	10	6	8	8	50
Score:							

Declaration of Academic Integrity

By signing below, I pledge that the answers of this exam are my own work without the assistance of others or the usage of unauthorized material or information.

Signature:

1. Answer the following

(a) Choose the correct answer of the following

1

(a) If $x = 2$ and $y = 5$, then $x + y$

A. 2 B. 7 C. 21 D. 1

1

(b) If $x = 12$ and $y = 5$, then $x + y$

A. 17

B. 7

C. 21

D. 1

2

(c) Who invented the pencil Me You They Him
 Socrates

2

(d) If $f(x) = \sin(x)$, then $f'(x) =$ _____.

(e) True or False

2

(a) ___ The world is all that is the case.

1

(b) ___ My favorite color is blue.

2. Let $f(x) = \sin(x) + x^2$

4

(a) Compute $\frac{df}{dx}$.

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5

(b) Compute $\int_0^1 f(x) dx$.

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10 3. Describe the effect of error propagation on numerical results.

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3 4. (a) What do you do with $f(x) = x$?

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3 (b) Is your answer different if $f(x) = \tan(x)$?

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8 5. In no more than one paragraph, explain why the earth is round.

6. Answer the following

1 (a) find $f(2.25)$.

(a) _____

1 (b) Approximate $f'(0)$.

(b) _____

1 (c) Approximate $\int_1^5 f(x) dx$.

(c) _____

5 (d) Redo questions (a), (b) and (c) with $f(1) = 4$ and $f(2) = 5$.

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Hope you all the best!

Dr. X Y Z, Dr. M N T