#### SC025

Computer Science Semester II Session 2024/2025 2 hours SC025 Sains Komputer Semester I I Sesi 2024/2025 2 jam

Name	Matric No					Class				

(Sila isi maklumat dengan jelas dan lengkap)



### **KOLEJ MATRIKULASI LABUAN**

LABUAN MATRICULATION COLLEGE

# PRA-PEPERIKSAAN SEMESTER PROGRAM MATRIKULASI

MATRICULATION PROGRAMME TRIAL EXAMINATION

## SAINS KOMPUTER

(SET 1) 2 jam

### JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO.

Untuk Kegunaan Pemeriksa				
No	Ma	rk		
-	Pemeriksa	KP / KKP		
1 (6 M)				
2 (10 M)				
3 (20 M)				
4 (8M)				
5 (11 M)				
6 (15 M)				
70 M				

Kertas soalan ini mengandungi 7 halaman bercetak This question paper consist of 7 printed pages

SUL	IT	Matrik:	 No. Kad Pengenalan:	
2)	a) E	coCare wants to	 alculate the monthly water bill. The system is used. The rate is RM0.002 per liter.	stem marks]
		INPUT		
		PROCESS		
		OUTPUT		

SULIT

SC025

	3.6 .3		~~~~=
SULIT	Matrik:	No. Kad Pengenalan:	SCO25

b) The Ministry of Health wants to build a system that records hourly air quality index (AQI) over 24 hours. If the AQI exceeds 100, a warning is issued; otherwise, it displays "Safe".

	[6 marks]
INPUT	
PROCESS	
1110 0200	
OUTPUT	
001101	

- 3) Algorithms help solve problems efficiently.
  - a) AgroSmart monitors livestock feeding that has different feed requirements for each type of animal. The amount of feed required per animal depends on the type of animal. The feed requirements are as follows:

<b>Animal Code</b>	Animal	Feed per Animal (kg)
C1	Cow	25
G1	Goat	5
S1	Sheep	8

Write a pseudocode to calculate and display the total feed required. The pseudocode should ask the user for the type of animal and the number of animals of that type. Based on the animal type entered, the program should calculate the total feed required and display it.

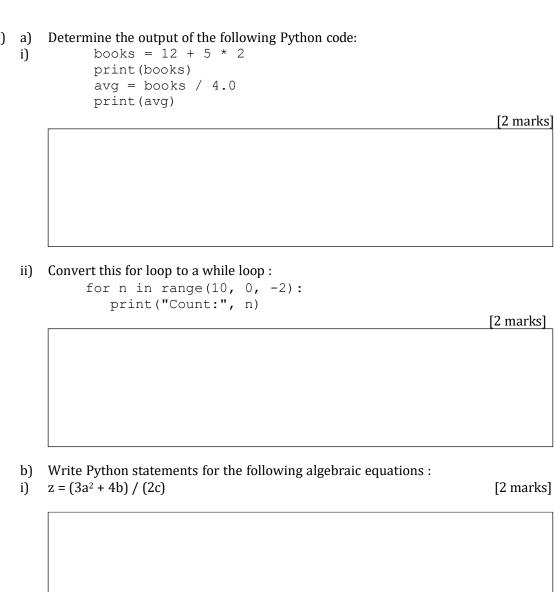
[6 marks]

SULIT	Matrik:	No. Kad Pengenalan:	SCO25

Total Purchase (RM)	Customer Type	Discount (%)
> 300	Premium	25%
> 300	Regular	10%
≤ 300	Premium	15%
≤ 300	Regular	No discount

	≤ 300	Regular	No discount	
Desi	ign a flowchart to ca	alculate and display discou	int and final payment. [	[14 marks]

SULIT	Matrik:	No. Kad Pengenalan:	SC025
4) a)	Determine the output of the following	Puthon code:	



ii)	$v = sqrt(u^2 + 2as)$	[2 marks]

			gives 10% bonus f	
				to marks
.1	C 11 .			
ema uses tr	ne following	ticket pricing :		
	Code	Category	Price (RM)	
	A01	Adult	18.00	
	A02 A03	Teenager Child	12.00 8.00	_
orogram re Write a Pyt	eads code an	ld quantity, adds I for this question	s 6% entertainme	nt tax, and displays
write aryt	mon program	rior tins question		[5 marks]

SULIT Matrik: No. Kad Pengenalan: SCO25

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