

DCI1013: PROBLEM SOLVING

Tutorial 1

by

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Question 1

Identify data types

Incorrect Variable Name	Problem
Address_Client_from_Pahang	Too long
Phone Number	
Price\$	
Bch	
1email	
Height*Weight	

Hint: Please refer notes “General Problem Solving Concept” (Chapter 1)



Question 2

Explain the problem of the incorrect variable name

Data	Data Types
"Awana Kijal"	Character String
1.20	
"RM1.20"	
"ACC9022787"	
"@gmail.1heart"	
TRUE	
"20/8/2017"	
-22.21	
"-22.21E"	
"B"	

Hint: Please refer notes "Problem Solving Concept for Computer Science" (Chapter 2)



Question 3

Developing a table of all possible resultants of a Logical Expression

NOT A OR NOT B AND NOT C

A	B	C					
T	T						
T	T						
T	F						
T	F						
F	T						
F	T						
F	F						
F	F						

Hint: Please refer notes “Problem Solving Concept for Computer Science” (Chapter 2)



Question 4

Solve logical expression:

Assume; A = TRUE, B = FALSE, C = TRUE, D = FALSE

A OR NOT B AND C OR NOT D

No	Operation	Resultant
1		
2		
3		
4		
5		

Hint: Please refer notes “Problem Solving Concept for Computer Science” (Chapter 2)



Question 5

Solve the equation using relational and logical operators:

Assume; A = 6, B = 8, C = TRUE, D = FALSE

- i. $R = A + 3 > B - 1 \text{ AND } C \text{ OR } D$
- ii. $R = \text{NOT } C \text{ OR } D \text{ OR } A - 3 \leq B$
- iii. $R = 3 + 7 \geq B \text{ OR } \text{NOT } C \text{ AND } B < A$
- iv. $R = A * 1 \neq B + A \text{ AND } C \text{ OR } D$
- v. $R = 1 + B > A / 1 \text{ OR } \text{NOT } D \text{ AND } C$

Hint: Please refer notes "Problem Solving Concept for Computer Science" (Chapter 2)



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