NATIONAL UNIVERSITY OF SINGAPORE

CS1231 – Discrete Structures

(Semester 1: AY2016/17)

ANSWER SHEETS

Time Allowed: 2 Hours

INSTRUCTIONS TO CANDIDATES

1. These Answer Sheets consist of **EIGHT (8)** printed pages.
2. Fill in your **Student Number** clearly below with a pen.
3. The last blank page (page 8) may be used if you need more space to write your answers.
4. You may write your answers in pencil.

STUDENT NUMBER:

A								

(Write your Student Number above legibly with a pen.)

FOR EXAMINER'S USE ONLY		
Questions	**Max.**	**Marks**
MCQs (Q1-15)	**30**	
Q16	**13**	
Q17	**12**	
Q18	**10**	
Q19	**15**	
Total	**80**	

Section B (50 marks)

Q16. [13 marks]

(a) i. [1]

(a) ii. [2]

(b). [4]

(c). [6]

Continue your answer to Q16(c) here only if you need to:

Q17. [12 marks]

(a) [3]

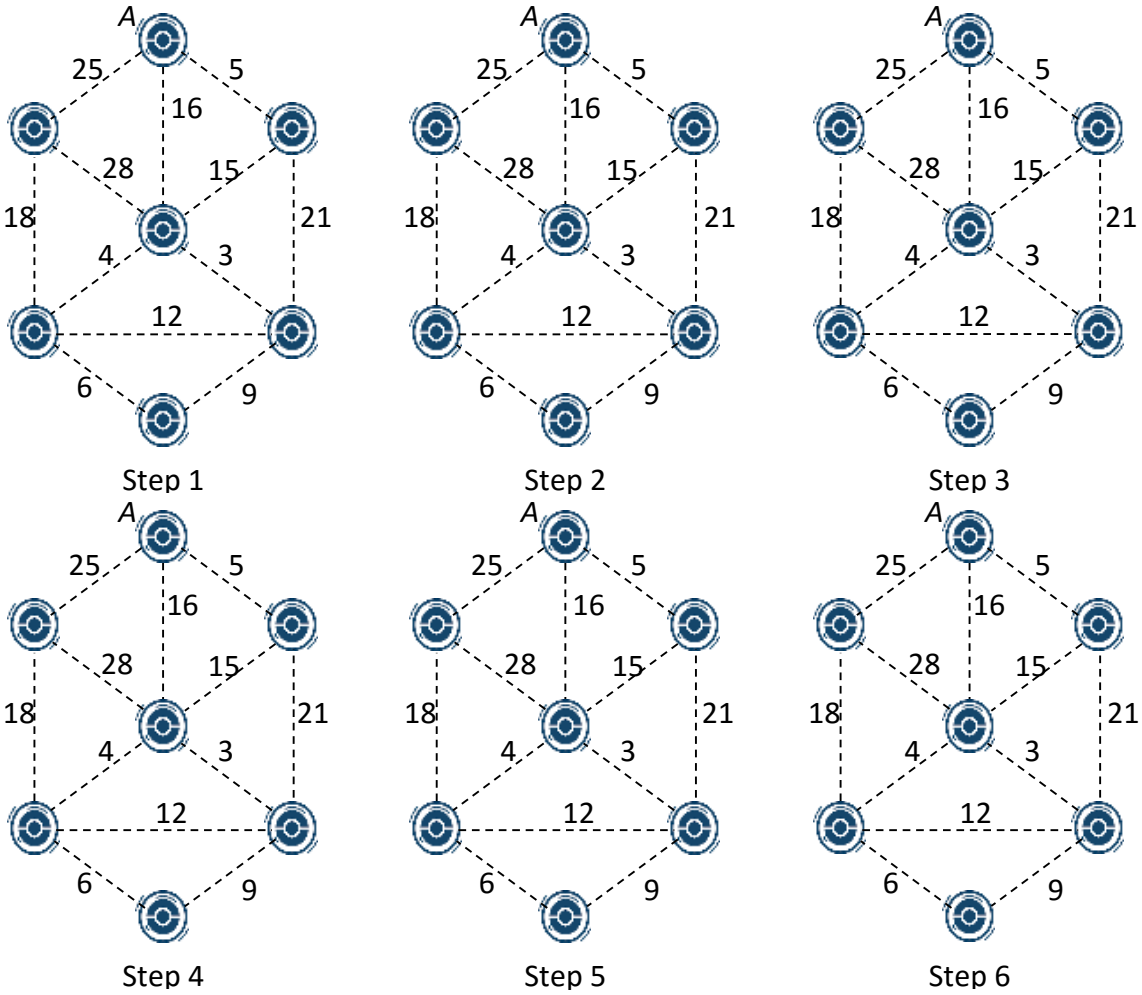
(b) i. [2]

$a + (((b + c) * d)/(e/(f - g)))$

Q17.

(b) ii. Which algorithm are you using? Kruskal's / Prim's ← Must indicate!

[3]



(c)

[4]

Q18. [10 marks]

(a) [3]

$\preccurlyeq_1 = \{$

$\}$

(b) [3]

Minimal element(s):

Maximal element(s):

Minimum:

Maximum:

(c) [1]

(d) [3]

Q19. [15 marks]

(a) [2]

$a_3 =$
$a_4 =$
$a_5 =$
$a_6 =$

(b) [4]

Q19.

(c)

[9]

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Do NOT use it for your rough work.
Use it ONLY if you need extra space for your answer, in which case please indicate the question number clearly.

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