UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2017/2018

COURSE NAME	:	LAND SURVEY FOR CONSTRUCTION
COURSE CODE	:	BPD 20203
PROGRAMME CODE	:	BPC
EXAMINATION DATE	:	JUNE / JULY 2018
DURATION	:	2 HOURS 30 MINUTES
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

TERBUKA

Q1   A construction company will construct a 10 storey building for student hostel in
       a UTKM piece of land. The student hostel will cater for student from outside of
       the city and it is about 5 km from UTKM. The UTKM's management required it
       to be a modern building and the site must be on the same level as the road as to
       avoid flood.

       Illustrate the work procedure to be conducted for the site to be on the same level
       as the road.

(15 marks)

Q2   **Table Q2** is all the data from levelling work.

Table Q2: Data from Levelling Work

Backsight (BS)	Intermediatesight (IS)	Foresight (FS)	Reduced Level (RL)
1.280			
	1.260		
1.130		1.340	
	1.170		
1.350		1.210	11.370
	1.310		
	1.280		
	1.390		
0.850		1.590	11.130
	1.050		
	1.190		
	1.280		
		1.270	

Compute using the data of levelling work with Height of Collimation (HC)
Method for:

(a)   HC

(5 marks)

(b)   RL

(10 marks)

(c)   Checking

(10 marks)

Q3 Data of spot height for point A is 10.00m, B is 10.25m, C is 10.50m, D is 9.5m, E is 9.75m, F is 10.00m, G is 9.50m, H is 9.50m and I is 9.75m. The formation will be 8.35m with the cross sectional area of one prism is 10m X 10m.

Calculate:

(a) Height of instruments

(8 marks)

(b) No. of squares

(8 marks)

(c) Products

(8 marks)

(d) Volume

(6 marks)

Q4 A theodolite survey is completed on a construction site and the bearing are from point 1 to 2 is 63° 30' 00" with 63.264m in distance, bearing from point 2 to 3 is 77° 25' 00" with 75.119m in distance, bearing from point 3 to 4 is 173° 43' 30" with 82.147m in distance, bearing from point 4 to 5 is 231° 55' 00" with 87.273m in distance and bearing from point 5 to 1 is 322° 19' 00" with 114.829m in distance.

Compute:

(a) Coordinates of north

(6 marks)

(b) Coordinates of south

(6 marks)

(c) Coordinates of east

(6 marks)

(d) Coordinates of west

(6 marks)

(e) Positional misclosure

(6 marks)

- END OF QUESTIONS -

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