

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

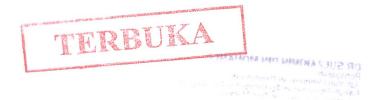
DURATION

: 2 HOURS 30 MINUTES

INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

CONFIDENTIAL



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	Intermediatesight	Foresight	Reduced Level
(BS)	(IS)	(FS)	(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:

2

(a) HC

(5 marks)

(b) RL

(10 marks)

(c) Checking

(10 marks)

CONFIDENTIAL

TERBUKA

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)

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 -

