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**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2015/2016**

COURSE NAME : LAND SURVEY  
COURSE CODE : BPE 20703  
PROGRAMME : 2 BPD  
EXAMINATION DATE : DECEMBER 2015/JANUARY 2016  
DURATION : 3 HOURS  
INSTRUCTION : ANSWER ALL QUESTIONS

UNIVERSITI TUN HUSSEIN ONN MALAYSIA  
KAMPUS BANGI  
JALAN SEMANGI, 43000 BANGI, SELANGOR  
(03) 8921 0000

**THIS QUESTION PAPER CONSISTS OF FIVE (5) PAGES**

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**Q1** The process of levelling requires a combination of human skill and mechanical equipment.

**Table Q1: Levelling Data**

No	BS	IS	FS			RL	Remarks
1	1.143						BM1
2		1.765					Drain1
3		2.566					Drain2
4	1.390		3.819				Lamp1
5		2.262					Lamp2
6		0.664					Lamp3
7	3.722		0.433				Road1
8		2.866					Road2
9		1.618					Road3
10			0.615			51.511	TBM1

Analyse the data above using a Height of Collimation method.

(25 marks)

**Q2** (a) A Total Station and Leveling Instrument is an instrument used in the land survey work. They are used for a variety of purposes. One of the purpose is for the determining the height of points on earth.

Describe the relevance of that purpose with geographical information system.

(5 marks)

(b) Propose a work procedure in establishing points (height and location) for a development of housing scheme.

(20 marks)

**Q3** Based on the data from the attached Table **Q3**, calculate the following values using the provided form.

(i) Average Bearing (7 marks)

(ii) Correction value (8 marks)

(iii) Final Bearing (10 marks)

**Q4** Based on the data in the attached Table **Q4**, calculate the necessary information using the provided form.

(i) Latit & Dipat and Positional Misclosure (8 marks)

(ii) Latit & Dipat (Corrected value) (8 marks)

(iii) Width (9 marks)

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**- END OF QUESTIONS -**

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**TABLE Q3: TRAVERSING DATA 1**

STATION (Stn)	BEARING			From	LINE	to
	face left (FL)	face right (FR)	Average Bearing	Stn	Final Bearing	Stn
8	266 54 30	86 55 00				
1						
2	154 26 10	334 26 00				
1						
2	334 26 00	154 26 10				
3	179 08 40	359 07 50				
2						
3	359 07 50	179 08 40				
4	246 08 40	66 09 00				
3						
4	66 09 00	246 08 40				
5	293 08 40	113 08 00				
4						
5	113 08 00	293 08 40				
6	309 37 10	129 36 50				
5						
6	129 36 50	309 37 10				
7	38 02 50	218 03 00				
6						
7	218 03 00	38 02 50				
8	42 12 10	222 12 50				
7						
8	222 12 50	42 12 10				
1	86 55 10	266 54 20				

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**TABLE Q4: TRAVERSING DATA 2**

LINE	BEARING	DISTANCE	LATIT		DEPART	
			North (N)	South (S)	East (E)	West (W)
1-2	169 36 40	60.170				
2-3	95 02 40	8.298				
3-1	342 18 10	62.879				

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