

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION SEMESTER II **SESSION 2016/2017**

COURSE NAME

: LAND SURVEY FOR CONSTRUCTION

COURSE CODE : BPD 20203

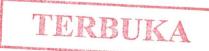
PROGRAMME CODE : BPC

EXAMINATION DATE : JUNE 2017

DURATION

: 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS



THIS QUESTION PAPER CONSISTS OF FIVE (5) PAGES

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Q1 (a) Land surveying involves work procedure where the technique and science of accurately determining the terrestrial or three-dimensional position of points, distances and angles between them. It is commonly practiced by licensed land surveyors in shaping or establishing construction site.

Describe the work procedure in transferring the known point of bench mark (BM) to be used in the construction site.

(8 marks)

(b) Project at hillside or slope is a project that needed extra care in terms of the positioning of the points and their value.

Analyse the importance of land survey in planning and development of project at hillside or slope.

(10 marks)

Q2 (a) A geographic information system (GIS) can visualize, question, analyze, interpret, and understand data to reveal the relationships, patterns, and trends, which is beneficial for contractor to plan any construction project.

Explain the contribution of GIS to the construction industry.

(8 marks)

(b) In surveying and setting out, a planning work covering the area should be carried out in the early stages to do traversing.

Explain the planning work needed for traversing.

(10 marks)

Q3 (a) Explain the meaning of class of survey (positional misclosure) in total station survey.

(5 marks)

- (b) Based on the observed data in the attached Fieldwork Form 1 at **Appendix** I, calculate (i) and (ii) using Fieldwork Form 1 in **Appendix** I.
 - (i) Bearing Average



(10 marks)

(ii) Final Bearing

(14 marks)

- Q4 (a) Based on the data from the attached Fieldwork Form 2 at Appendix II, calculate (i), (ii) and (iii) using Fieldwork Form 2 in Appendix II.
 - (i) Latit & Dipat

(8 marks)

(ii) Corrected Latit & Dipat

(12 marks)

(iii) Calculation of Area

(15 marks)

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- END OF QUESTIONS-

APPENDIX I

SEMESTER/SESSION: SEM II/2016/2017 COURSE NAME : LAND SURVEY

FOR CONSTRUCTION

PROGRAMME CODE: BPC COURSE CODE: BPD 20203

		Bearing		
Station	F.Left	F.Right	Average Bearing	Final Bearing
8	266 54 00	86 55 00		
1				
2	154 26 30	334 26 20		
1	334 26 20	154 26 10		
2				
3	179 08 40	359 08 50		
2	359 07 50	179 08 40		
3				
4	246 08 00	66 09 00		
3	66 09 00	246 08 40		
ı				
5	293 08 40	113 07 20		
4	113 08 00	293 08 40		
;				
6	309 37 00	129 37 50		
5	129 36 50	309 37 10		
7	38 03 50	218 03 00		
6	218 03 00	38 02 50		
8	42 12 10	222 11 50		
7	222 11 50	42 12 10		
1	86 55 40	266 56 00		



APPENDIX II

SEMESTER/SESSION: SEM II/2016/2017 COURSE NAME : LAND SURVEY

FOR CONSTRUCTION

PROGRAMME CODE: BPC COURSE CODE: BPD 20203

Line	Bearing	Distance	Latit	Dipat		
1						
2	26 10 12	57.348				
3	104 35 02	122.808				
4	195 30 12	144.940				
5	358 18 10	40.843				
6	320 28 40	68.023				A-4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1	292 59 02	66.124				



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