



# UTHM

Universiti Tun Hussein Onn Malaysia

## UNIVERSITI TUN HUSSEIN ONN MALAYSIA

### FINAL EXAMINATION SEMESTER II SESSION 2021/2022

COURSE NAME : LAND SURVEY FOR CONSTRUCTION

COURSE CODE : BPD 20203

PROGRAMME CODE : BPC

EXAMINATION DATE : JULY 2022

DURATION : 3 HOURS

INSTRUCTION : 1. ANSWER ALL QUESTIONS  
2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.  
3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

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

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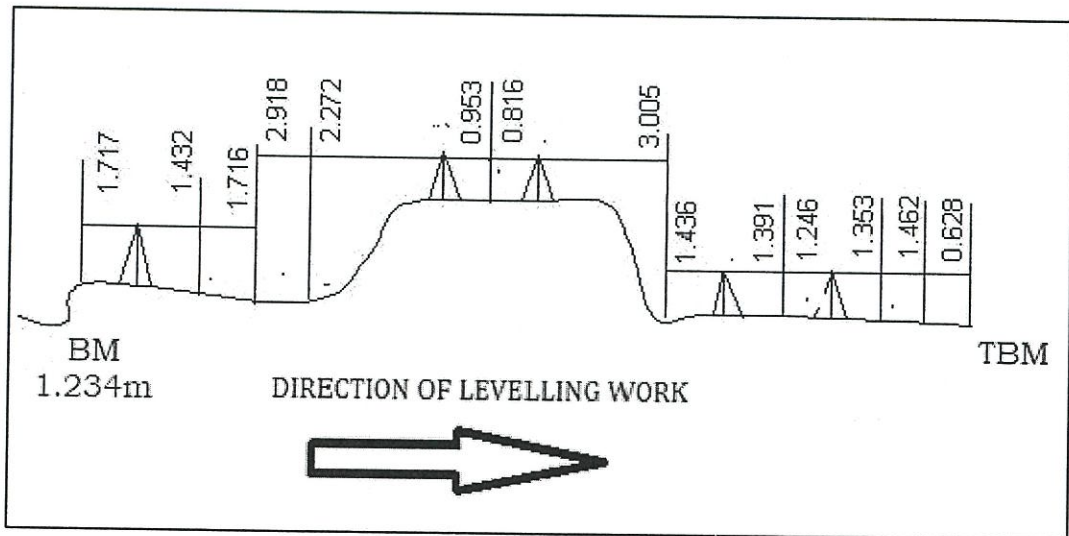
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- Q1 (a)** A land survey involves locating and measuring both man-made and natural features using the principles of mathematics, geometry, and other sciences. By using various tools, a land surveyor can measure things such as elevation, angles, and boundaries on a property. There are multiple forms of land survey, each with a unique purpose and set of required tools.

Discuss forms of land survey that require levelling instrument application.

(10 marks)

- (b)** Solve the elevation point using the height of collimation from survey data in **Figure Q1 (b)**.



**Figure Q1(b): Levelling work**

(20 marks)

- Q2 (a)** Using the survey data in **Table Q2 (a)** and **Figure Q2 (a)**:

**Table Q2 (a): Spot Height**

Ground Points	Spot Heights	Formation	Height of Instrument	No.of Square	Product
A	10				
B	10.25				
C	10.5				
D	9.5				
E	9.75				
F	10				
G	9.5				
H	9.5				
I	9.75				

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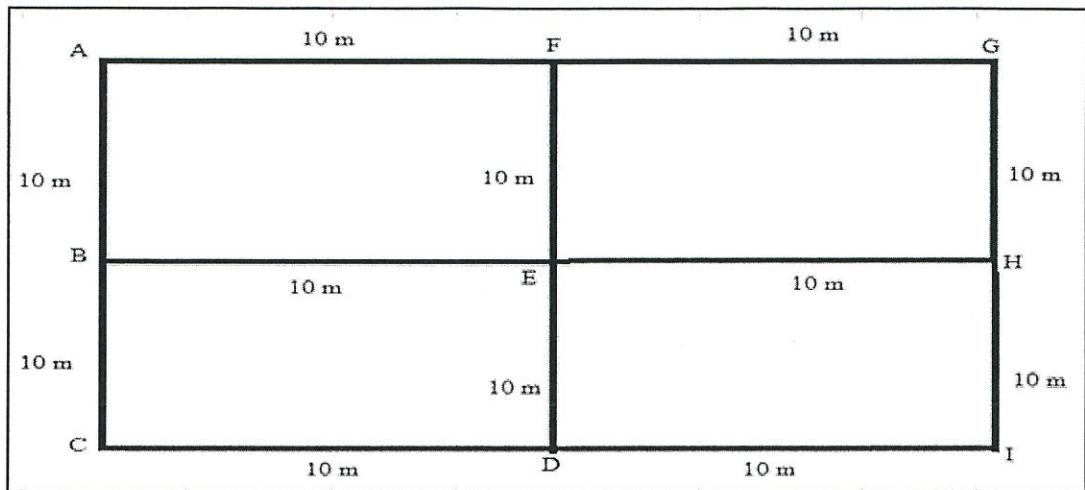


Figure Q2 (a): Site of Cut & Fill

Analyse the cut and fill proposal by applying the formation value of 8.3m to the equation.

(20 marks)

- (b) Compare the usage of levelling instrument with total station in the construction site's application.

(12 marks)

- Q3** (a) List types of survey involve in tunneling activities.

(4 marks)

- (b) Explain with example the procedure using total station at construction site for building construction.

(16 marks)

- Q4** (a) Describe with example the term Global Positioning System.

(8 marks)

- (b) Describe **FOUR (4)** functions of Geographical Information System (GIS).

(10 marks)

-END OF QUESTIONS-

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