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C09-MNG-306

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCTOBER/NOVEMBER-2018
DMNG- THIRD SEMESTER EXAMINATION**

MINE SURVEYING-I

Time : 3 Hours]

[Total Marks: 80

PART-A

3X10=30

- Instructions :**
1. Answer **All** questions.
 2. Each question carries **Three** marks.
 3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. State the principles of surveying
2. The length of the line measured by a 20m chain was found to be 501 m. calculate the true length of the line if the chain was 2cm too short.
3. State the principle of chain surveying.
4. State the term “ Reference sketch” of chain surveying with sketch.
5. Define the term local attraction.
6. List the types of compasses.
7. Define of terms (a) Station (b) Height of instrument (c) Reduce level.
8. Define the term stratum contours, Isopachyte and grade contour.
9. Define the term index error.
10. List the fundamental lines of a transit theodolite.

PART-B

10X5=50

Instructions : *

1. Answer any **Five** questions
2. Each question carries **ten** marks.
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Describe the constructional details of chain and tape with sketch.
12. Describe the method of chaining where vision is free but chaining obstructed with sketch.
13. Explain the types of offsets and applicability of each.
14. List the parts of prismatic compass with sketch.
15. The observed bearings of the sides of a triangle ABC are as follows. Calculate the included angle check their sum.

Line	F.B
AB	60 ⁰
BC	130 ⁰
CA	270 ⁰

16. Following are the staff readings taken with dumpy level. Calculate R.L of points by rise and fall method if the R.L of point A is 100.000.

Station	B.S	I.S	F.S
A	1.220		
B		1.750	
C		1.620	
D	1.110		1.545
E		1.990	
F		1.670	
G			1.550

17. In levelling between two points A and B on opposite banks of a river, the level was set up near A and the Staff readings A and B were 2.243 and 3.391 respectively. The level was then moved and set up near B and the respective staff readings of A and B were 1.889 and 3.041. find the true difference of level of A and B.
18. Describe the reiteration method of measurement of Horizontal angle with neat sketch.

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