Printed Pages : 3

NAG204

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 180222

Roll No.

B. Tech.

(SEM. II) THEORY EXAMINATION, 2014-15
SURVEYING & LEVELING

Time : **3** Hours]   [Total Marks : **100**

Note :   The question paper is divided in three sections. Attempt each section. Assume missing data suitably if necessary.

SECTION - A

1   Attempt each short answer type question: **2×10=20**

(a)   Define Leveling. Mention any two levelling methods.

(b)   Why a hill is an obstacle to chaining and ranging?

(c)   For what purposes a optical square is used?

(d)   Why tags are provided on the chain ? From which materials they are made of.?

(e)   Find W.C.B. for a Q. B.: N65°30° W.

(f)   Define the Fore bearing and Back bearing.

(g)   What do you understand by change point in levelling?

(h)   What do you mean by representative fraction?

(i)   Why a Plumbing fork is used in plane table survey?

(j)   What is "Error of Closure"?

SECTION-B

2   Attempt any three parts of the following :   10×3=30

(a)   Describe the different kinds of chains stating their special advantages. How the testing and adjustment of a chain is done?

(b)   Discuss the cross staff survey in detail.

(c)   Describe the Intersection method of plane table survey with neat sketch.

(d)   Sketch and describe the prismatic compass. How will you use it ?

(e)   What is the difference between temporary and permanent adjustment of a level ? Explain the permanent adjustment of dumpy level.

SECTION-C

3   Attempt any five parts of the following :   10×5=50

(a)   Explain the height of collimation method of reducing leveling notes. What are the different sources of errors in leveling? How are they eliminated?

OR

Describe the methods of traversing by theodolite and discuss their advantages and disadvantages.

(b)   Describe briefly the use of various accessories of a plane table survey.

OR

Explain clearly the three point problem in plane tabling and explain how it is solved.

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(c)   Explain Bowditch rule with the help of neat sketches.

OR

Explain temporary adjustment of prismatic compass.

(d)   Enumerate chain corrections. A chain of nominal length 30 m is found to be 0.40 m too long. If the computed area of the field measures with a chain is 700 ha, determine the correct area.

OR

Explain cross sectioning. What is its importance? How would you draw a longitudinal section and a cross section?

(e)   Discuss the characteristic of contours. Give suitable sketches in support of your answer.

OR

Explain the theory and working of a Planimeter.

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