**C-14-AA-304**

END EXAM SET-1

**S.B.T.E.T.TELENGANA, HYDERABAD**

**BOARD DIPLOMA EXAMINATION**

**DAA-III SEMESTER MODEL QUESTION PAPER**

**AA 304-SURVEYING**

Time : 3 Hours Total Marks : 80

 **PART – A 10X3=30**

**Instruction :** *(i) Answer* ***all*** *questions and each question carries* ***three*** *marks. (ii) Answer should be brief and straight to point and shall not*

 *exceed* ***five*** *simple sentences.*

1. State the classification of survey based on instrument used.

2. Distinguish between baseline and check line.

3. State the functions of each (i) Chain and (ii) Cross staff.

4. Define close traverse and open traverse.

5. Convert the following bearings from one system to another system

 a.) 169O45’ b.) S 45O15’ W c.) 212O30’

6. State the names of any Three major parts of Dumpy-Level.

7. Define the term benchmark and state the types of benchmarks.

8. List any three fundamental lines of a theodolite.

9. Define (a) Swinging of theodolite (b) Transiting of theodolite.

10. State use of the following

 (a) EDM.

 (b) Total station.

 Contd...

**PART – B** 5 X10=50

**Instructions** *: (i) Answer any* ***five*** *questions and each question*

 *Carries* ***ten*** *marks.*

 *(ii) The answers should be comprehensive and the*

 *criteria for valuation is the content but not the*

 *length of the answer.*

11. (a) List the different obstacles in chain surveying. (3-marks)

(b) Explain random line method to overcome an obstacle in which chaining is free but vision obstructed. (7-marks)

12. The following offsets were taken from a survey line to a hedge :

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Distance(m) |  **0** |  **5** |  **10** |  **15** |  **20** |  **25** |  **30** |  **35** |  **40** |
| Offset (m) | **3.29** | **4.05** | **6.23** | **5.75** | **4.75** | **5.26** | **4.32** | **4.10** | **4.00** |

Calculate the area between survey line, the hedge and end offset by Trapezoidal rule.

13. (a) What is meant by closing error?

 (b) Explain any one method of plotting a compass traverse.

14. (a) List the broad classification of errors in compass survey.

 (b) State the precautions to be taken during compass traversing.

15. The following consecutive reading were taken with a level :

 **0.885 1.245 1.275 1.425 1.545**

 **0.320 0.545 0.945 1.160 1.560 and 1.755 mts.**

The level was shifted after the 4th , 7th and 10th readings. The first reading was taken on a **B.M.** of **R.L. 200.00 mts.** Draw out a page of level Rider book and enter the readings and calculate the R.L. of all points. Apply check.

16. (a) List the types of classification of leveling.

 (b) Briefly explain reciprocal leveling.

17. Explain procedure of measurement of horizontal angles by repetition method using theodolite.

18. State and explain balancing of closed traverse by Bowditch method.