APPENDIX-V

Topic: Triangles having equal areas and having one side of one of the triangles, equal to one side of the other, have their corresponding altitudes equal.

Method: Synthetic Method

Aim: To test the understanding and retention of concepts taught in Synthetic method.

TEST NO. 4

Time: 30 Minutes

Q.1 Area of \( \triangle ABC = 2 \times (\text{area of } \triangle DEF) \) (\( \triangle \)'s have equal base). Find the ratio of the altitudes.

Q.2 In \( \triangle ABC \), \( AD \) is the median from \( A \) to \( BC \).

\( DM \parallel AB, \ DN \parallel AC, \ DM = DN \)

Find out the type of \( \triangle ABC \)

Q.3 In this figure, \( DE \parallel BC \), then \( \frac{\alpha \times \triangle DBC}{\alpha \times \triangle EBC} = \)

Q.4 If \( \triangle ABC \) and \( \triangle DBC \) are of equal area, find out the lines which are parallel.
Q.5 Area of $\triangle ABC = \text{Area } \triangle DEF$

\[ \frac{AB}{BC} = \frac{DE}{EF} \]

$AX \perp BC, \ DY \perp EF$

Find the relation between $BX$ and $DY$