



SATISH CHANDRA MEMORIAL SCHOOL
PRACTICE TEST-AUGUST, 2025
STD-VII

HIGH ORDER THINKING SKILL QUESTIONS

Q 1. In Ladakh, two observation towers A and B are located on a hill such that the triangle formed with the ground base C is ABC, where $AB = 100$ m, $AC = 80$ m, and $BC = 60$ m.

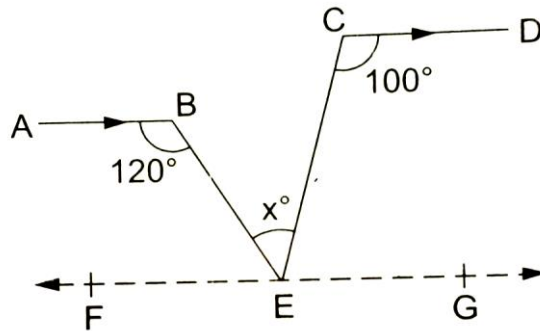
- a) Use the triangle inequality property to check if this triangle is valid.
- b) What type of triangle is this based on its sides?
- c) Is it possible for this triangle to be a right-angled triangle? Prove using suitable theorem.
- d) Discuss how knowing the properties of triangle helps in locating communication towers in hilly terrains.

4 marks

Q 2. Solve for x: $\frac{x+2}{6} - \left(\frac{11-x}{3} - \frac{1}{4}\right) = \frac{3x-4}{12}$

4 marks

Q 3. In the given figure, $AB \parallel CD$, $\angle ABE = 120^\circ$, $\angle ECD = 100^\circ$ and $\angle BEC = x^\circ$. Find the value of x.



4 marks

Q 4. (i) Find the value of $(-8u^2v^6) \times (-20uv)$ for $u = 2.5$ and $v = 1$

2 marks

(ii) Subtract the sum of $(8a - 6a^2 + 9)$ and $(-10a - 8 + 8a^2)$ from -3 .

2 marks