

Short Questions

Write the short answers of the following:

- Q.1: Define the law of sine.
- Q.2: Define the Laws of cosines
- Q.3: In right triangle ABC, $\gamma = 90^\circ$, $a = 5$, $c = 13$ then find the value of angle α .
- Q.4: Given that $\gamma = 90^\circ$, $\alpha = 35^\circ$, $a = 5$, find angle β
- Q.5: In right triangle ABC $b = 6$, $\alpha = 35^\circ$, $\gamma = 90^\circ$, Find side 'a'
- Q.6: Given that $\alpha = 30^\circ$, $\gamma = 135^\circ$, and $c = 10$, find a
- Q.7: In any triangle ABC, if $a = 20$, $b = 32$ and $\gamma = 70^\circ$, Find A.
- Q.8: In any triangle ABC if $a = 9$, $b = 5$, and $\gamma = 32^\circ$, Find c.
- Q.9: The sides of a triangle are 16, 20 and 33 meters respectively. Find its greatest angle.
- Q.10: Define angle of elevation and depression.
- Q.11: A string of a flying kite is 200 meters long, and its angle of elevation is 60° . Find the height of the kite above the ground taking the string to be fully stretched.
- Q.12: A minaret stands on the horizontal ground. A man on the ground, 100 m from the minaret, Find the angle of elevation of the top of the minaret to be 60° . Find its height.
- Q.13: The shadow of Qutab Minar is 81m long when the measure of the angel of elevation of the sun is $41^\circ 31'$. Find the height of the Qutab Minar.
- Q.14: In any triangle ABC in which
 $b = 45$, $c = 34$, $\alpha = 52^\circ$, find a
- Q.15: In any triangle ABC is which
 $a = 16$, $b = 17$, $\gamma = 25^\circ$ find c
- Q.16: In any triangle ABC in which
 $a = 5$, $c = 6$, $\alpha = 45^\circ$ Find $\sin \gamma$
- Q.17: $b = 25$, $c = 37$ $\alpha = 65^\circ$ find a

Q.18: $a = 16, b = 17, \gamma = 25^\circ$ find c

Q.19: $a = 3, b = 7, \beta = 85^\circ$ Find α .

Answers

3. $22^\circ 37'$ 4. $\beta = 55^\circ$ 5. $a = 4.2$ 6. $a = 7.07$

7. $A = 35^\circ 77' 58''$ 8. $c = 5.48$ 9. $\gamma = 132^\circ 34'$ 11. $h = 173.2 \text{ m}$

12. $h = 173.20 \text{ m}$ 13. $h = 71.66 \text{ m}$ 14. $a = 36.04$ 15. $c = 7.21$

16. $\gamma = 58^\circ 3'$ 17. $a = 34.82$ 18. $c = 7.21$ 19. $\alpha = 25^\circ 14' 14''$