CHAPTER-2

INVERSE TRIGONOMETRIC FUNCTIONS

CASE BASED QUESTIONS













	c) $\angle ABC =$ (i) π (ii) $\frac{\pi}{2}$ (iii) $\frac{\pi}{3}$ (iv) $\frac{\pi}{6}$ d) Domain of $\cos^{-1} x$ (i) $[-1,1]$ (ii) $(-1,1)$ (iii) $[-1,1)$ (iv) $[-1,0)$ e) Range of $\sin^{-1} x$ (i) $(0, \frac{\pi}{2})$ (ii) $(\frac{\pi}{2}, \frac{\pi}{2})$ (iii) $[-1,1]$ (iv) $[-\frac{\pi}{2}, \frac{\pi}{2}]$
6.	The angles of depression of the top and the bottom of an 8 m tall building from the top of a multi-storeyed building are tan ⁻¹ 1 /V3 andsec ⁻¹ v2, respectively.



	(iii) 1937 km
	(iv) 1025.36 km
b)	The distance of the satellite from the top of Mullayanagiri is
	(i) 1139.4 km
	(ii) 577.52 km
	(iii) 1937 km
	(iv) 1025.36 km
c)	The distance of the satellite from the ground is
	(i) 1139.4 km
	(ii) 577.52 km
	(iii) 1937 km
	(iv) 1025.36 km
d)	What is the angle of elevation if a man is standing at a distance of 7816m
	from Nanda Devi
	(i) $\sec^{-1} 2$
	(ii) $\cot^{-1} 1$
	(iii) $\sin^{-1}\frac{\sqrt{3}}{2}$
	(iv) $\cos^{-1} 1$
e)	If a mile stone very far away from, makes $\cos^{-1}\frac{1}{\sqrt{2}}$ to the top of Mullanyangiri
	mountain. So, find the distance of this mile stone from the mountain.
	(i) 1118.327 km
	(ii) 566.976 km
	(iii) 1937 km.
	(iv) 1025.36 km.
1	





ANSWER KEY

1			
Q.NO	ANS	Q.NO	ANS
1(a)	i	6(a)	i
1(b)	iv	6(b)	iv
1(c)	i	6(c)	iii
1(d)	iii	6(d)	i
2(a)	ii		
2(b)	iii	7(a)	i
2(c)	ii	7(b)	iii
2(d)	ii	7(c)	ii
2(e)	iii	7(d)	ii
3(a)	ii	7(e)	iii
3(b)	iii	8(i)	(D)
3(c)	iv	8(ii)	(B)
3(d)	iii	8(iii)	(D)
3(e)	iii	8(iv)	(B)
4(a)	i	8(v)	(A)
4(b)	ii	9(i)	(C)
4(c)	iii	9(ii)	(D)
4(d)	iv	9(iii)	(B)
4(e)	i	9(iv)	(C)
5(a)	iv	9(v)	(A)
5(b)	iii		
5(c)	ii		
5(d)	i		
5(e)	iv		

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