www.Padasalai.Net							ai.Net www.CBSEtips.in SRI KRISHNA COACHING CENTRE RMM UNIT TEST TWO MARKS: 50 TRIGONOMETRY EXAM NO : FOLLOWING 10×2=20 = sec θ + tan θ cosec θ + cot θ vation of the top of a tower from a point on the ground, Which is 30m away from the ight $10\sqrt{3}$ m. ically on the ground. From a point on the ground, Which is 30m away from the foot of of θ elevation of the tower is 30°. Find the height of the tower. he top of a tower of height 20m observe the angle of depression of a ball lying on the the distance between the foot of the tower and the ball. ($\sqrt{3} = 1.732$) ck $50\sqrt{3}$ m high, the angle of depression of a car on the ground is observed to be 30°. the car from the rock. ABC in the given triangles(tan 38.7°=0.8011, tan 69.4°=2.6604) $\frac{4CM}{5CM}$				
$\mathbf{\mathbf{S}}$			<u>}~~~</u>								\mathbf{S}
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Ì	STD	TD : X UNIT T			EST TWO				MARKS: 50		
	TIM	E:2HRS		TRIGON	OMETRY		EXAM NO):			
$\overline{\bigcirc}$	I.	ANSWE	R THE FOLLOWI	NG					10	$\times 2=2$	20
\bigcirc	1.	Prove that $\sqrt{\frac{1}{2}}$	$\frac{1+\sin\theta}{1-\sin\theta} = \sec\theta + \tan\theta$	θ							()
$\overline{\mathbf{S}}$	2.	Prove that $\sqrt{\frac{1}{1}}$	$\frac{1+\cos\theta}{1-\cos\theta} = \csc\theta + \cos\theta$	otθ							(
	3.	Find the angl	le of elevation of th	he top of a tow	ver from a poir	nt on the g	round, Whic	ch is 30n	n awa <u>y</u>	y fron	n the 🦷
		foot of a tower of height $10\sqrt{3}$ m.									
	4.	A tower stan	ds vertically on th	e ground. Fro	m a point on th	e ground,	Which is 48	m away	from	the fo	ot of
		the tower, the angle of elevation of top of the tower is 30°. Find the height of the tower.									
	5.	A player sitti	ing on the top of a	tower of heigh	nt 20m observe	e the angle	of depressi	on of a b	all lyi	ng on	the
		ground as 60)°. Find the distanc	ce between the	e foot of the tov	wer and th	e ball.($\sqrt{3}$ =	1.732)			
	6.	From the top	of a rock $50\sqrt{3}$ m	high, the angle	e of depression	n of a car or	n the ground	t is obse ا	rved t	to be 3	30°. 🗏
	_	Find the dista	ance of the car from	m the rock.				4CM			0
	7.	Calculate the	size of ABC in the g	given triangles	(tan 38.7°=0.801	11, tan 69.4	4°=2.6604)	вЦ	θ	A	(
\mathbf{i}	8.	Prove that $\frac{3}{1+}$	$\frac{Sin A}{Cos A} = \frac{1 - Cos A}{Sin A}$					5	CIVI		(
$\mathbf{\mathbf{i}}$	9.	Prove that tar	$n^4\theta$ + tan ² θ = Sec ⁴ θ	$-\operatorname{Sec}^2\theta$.							((
\bigcirc	10.	A kite is flying	g at a height of 75m	n above the gro	ound. The string	g attached t	o the kite is	tempora	rily tie	ed to a	a point 🤇
\bigcirc		on the ground. The inclination of the string with the ground is 60°. Find the length of the string, assuming that									that (
\bigcirc		there is no sla	ack in the string.								(
$\overline{\bigcirc}$	II.	ANSWER	THE FOLLOWING						6×	5=30	(
\bigcirc	11.	If $\cos\theta + \sin\theta$	= $\sqrt{2} \cos\theta$, then Pr	ove that $\cos \theta$	$-\sin\theta = \sqrt{2}\sin\theta$)					(
\bigcirc	12.	If cosecθ + co	$t\theta = P$, then Prove	that $\cos\theta = \frac{P^2}{R^2}$	-1						(
\bigcirc	13	If sinA + cosA	$=\sqrt{3}$, then Prove t	hat tan θ + cotf	++ •) = 1						(
\bigcirc	14.	To a man star	nding outside his ho	ouse, the angle	e of elevation to	p and bott	om of a wind	low are (50° an	d 45°	(
\bigcirc		respectively. If the height of the man is 180cm and if he is 5m away from the wall. What is the height of the									
\bigcirc		window? ($\sqrt{3}$	$\bar{3} = 1.732$)			,	,		0		(
Ì	15.	From the top	of the tower 60m l	high the angles	s of depression a	of the top a	and bottom	of the ve	rtical l	amp	oost are
Ì		observed to h	be 38° and 60° resp	ectively. Find t	the height of the	e lamp nost	t.(tan 38° =	0.7813	$\sqrt{3} = 1$.732 \	(
Ŏ	16.	From the top	of the tree of heigh	ht 13m the and	le of elevation a	and depres	sion of the t	op and b	ottom	n of an	other (
$\overline{\bigcirc}$	-	tree are 45° a	and 30° respectively	v. Find the heig	aht of the secon	d tree. ($\sqrt{3}$	$\frac{1}{3} = 1.732$)	-			(
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Kindly send me your study materials to padasalai.net@gmail.com