Put direct angles first then if it does not work use formula

ID	Question Description	Problem Area	Solution	Status/Notes	Trick/repetition
1)	Q.1 Problem 1	1) Distance area formula and costheta		Understood	Revision
2)	Q.2 Problem 2	1) Using cosA + cosB 2) Using costheta = 0 i.e cos(2n+1)pi/2		Understood	Revision
3)	Q.3 Problem 5	1) Angle subtend 2) Talking about upper part		Understood	Revision
4)	Q.4 Problem 7	1) Find distance 2) Then divide the time in seconds by 3600 as we need to find in km/h		Understood	Revision
5	Q.5 Problem 10	1) 1/a+c + 1/b+c = 3/a+b+c		Understood	Revision
6	Q.6 Problem 13	1) Angles are in AP, B = 60deg		Understood	Revision
7	Q.7 Problem 12	1) tan(theta-beta) = tanalpha		Understood	Revision
8)	Q.8 Problem 14	1) In terms of sinx		Understood	Revision
9	Q.9 Problem 16	1) Make diagrams 2) Find sinalpha and cosalpha 3) Same for beta 4) Use it to find x and y		Understood	Revision
10	Q.10 Problem 18	1) In AP, angle b = 60deg, and the sides will increase in order		Understood	Revision
11	Q.11 Problem 19	1) Make cos2x = 1-2sin^2x		Understood	Revision
12	12 Problem 20	1) Making sense		Understood	Revision

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		of alpha and beta 2) Find tan(alpha-beta) 3) Put the eqn in respect of h and tan 4) Turn them into sin and cos			
13	Q.13 Problem 22	1) Using degree, 30, 60 and 90. And their respective ratio is 1:sqrt(3):2		Understood	Revision
14	Q.14 Problem 23	1) Taking sin^2x common 2) Putting it against 0 3) Get the value 4) Options se bhi ho jata		Understood	Revision
15	Q.15 Problem 24	1) Turning tan into cot 2) Making 3 eqn 3) Getting value of sin		Understood	Revision
16	Q.16 Problem 21	1) Using a/sinA = k concept		Understood	Revision
17	Q.17 Problem 28	1) Using complete square method		Understood	Revision
18	Q.18 Problem 33	1) A + b + c = Am of sines56		Understood	Revision
19	Q.19 Problem 35	1) Circumradius = PQ = PR 2) Using sin formula of 2R		Understood	Revision
20	Q.20 Problem 37	1) Using cosA formula 2) Making conceptual eqn to find A		Understood	Revision
21	Q.21 Problem 38	1) Tanx + secx = 2cosx turning them into sinx eqn		Understood	Revision

22	Q.22 Problem 39	1) Using area of triangle to get AD another value 2) Then put both values as equal 3) Value of R will come into play		Understood	Revision
23	Q.23 Problem 42	1) Taking first finding range of first ineqn then of second inequality 2) Find common		Understood	Revision
24	Q.24 Problem 43	1) Using sin concept :- a/sinA = b/sinB 2) Using AD common in both triangles		Understood	Revision
25	Q.25 Problem 44	1) Find cosB 2) Then, we can find AD too		Understood	Revision
26	Q.26 Problem 46	1) Using concept of R/r 2) Using formula of R and r that is using abc and s		Understood	Revision
27	Q.27 Problem 47	1) Find the no. of times where sinx is +ve		Understood	Revision
28	Q.28 Problem 48	1) Using property of AP on sinA 2) On it, we have used sin concept 3) We got to know a,b,c, are in AP 4) Then, we defined area of triangle in terms of perpendicular		Understood	Revision
29	Q.29 Problem 51	1) Which angle to consider larger		Understood	

30	Q.30 Problem 52	1) tan(P+Q)/2 will be used 2) Using given info, tanp/2 and tanq/2 being the roots		Understood	Revision
31	Q.31 Problem 53	1) C = pi/2 2) 2(r+R), making their values in respective to angle C 3) As we know, when an angle of triangle in a circumcircle is 90 deg. The opposite side would be diameter		Understood	Revision
32	Q.32 Problem 56	1) The value of k or 2k+1 will be between -sqrt(a^2 +b^2) to sqrt(a^2 + b^2)		Understood	Revision
33	Q.33 57	1) Which one does not give us idea about angles A,B,C or their respective sides		Understood	
34	Q.34 58	1) Using the sum of angles property to find the value of x 2) a/(a+b+c) 3) a / sinA = k, a = sinA.k		Understood	Revision
35	Q.35 59	1) Here, we got the ratios of sides 2) Can be used to find angles through Cos formula		Understood	Revision
36	Q.36 60	1) Property of equilateral		Understood	Revision

		triangle is every angle is 60 deg 2) Area of equilateral triangle is sqrt(3)/4 * a^2			
37	Q.37 62	1) First use sin ratio concept will give value in terms of ratios 2) Put the values in the formula of inradius given value i.e sqrt(3) 3) Will get the value of ratio 4) Then use it to find the value of area		Understood	Revision
38	Q.38 63	1) Where theta satisfies the inequality		Understood	Revision
39	Q.39 66	1) Angles are in AP 2) Taking guess of the values of angles		Understood	Revision
40	Q40 67	1) cos formula 2) Division step [careful]		Understood	Revision
41	Q.41 68	1) Making terms in respect to tan 2) Taking common		Understood	Revision
42	Q.42 69	1) Formula use karna 2) Then option check krna		Understood	Revision
43	Q.43 70	1) Building trapezium 2) Using the concept of sin ratio to find the		Understood	Revision

		value of AB			
44	Q.44 71	1) r/R 2) Use their respective formula		Understood	Revision
45	Q.45 72	1) AB:BC		Understood	Revision
46	Q.46 73	1) speed = distance/time		Understood	
47	Q.47 74	1) cos A + cosB combination 2) Thinking of any possible value of n		Understood	
48	Q.48 75	1) Cos2x on the right 2) Thinking every possible value of n, that put x in specified range 3) Value of n can be taken negative too		Understood	Revision
49	Q.49 76	1) AP = 2AB 2) C being the mid point of AB		Understood	
50	Q.50 77	1) The tower is tilted		Understood	Revision
51	Q.51 78	1) Sin^2x converted into cos^2x		Understood	Revision
52	Q.52 79	1) Triangular plot formation 2) BD is a median as it connects D is mid point connects the vertex to the opposite side		Understood	Revision
53	Q.53 80	1) If done in terms of sinx		Understood	Revision
54	Q.54 81	1) A + B = 120 2) Use tan(A-B)/2		Understood	Revision

55	Q.55 83	1) Taking the ratio equal to k 2) Find respective length of sides 3) Use it to find cos		Understood	Revision
56	Q.56 84	1) The point p is above the lake		Understood	Revision
57	Q.57 85	1) a, b, c in ap 2) Write them in terms of ksintheta 3) Write ap expression in terms of angle A		Understood	Revision
58	Q.58 86	1) Using property of similarity 2) Sides of triangles being parallel 3) Proportionality theorem		Understood	Revision
59	Q.59 87	1) Find the value of theta in the range given		Understood	
60	Q.60 89	1) Try to put values of sinx[max or min]		Understood	
61	Q.61 90	1) Cot and cosec in terms of tan		Understood	
62	Q.62 91	1) Using sin ratio concept 2) Taking k as a ratio 3) Find angles 4) Then using cos formula to find the value of k to find sides		Understood	
63	Q.63 92	1) Taking a value of sin^4x and cos^23x where the equation can be satisfied		Understood	Revision

64	Q.64 93	1) Taking alpha common 2) Finding the value of alpha where the equation satisfies		Understood	Revision
65	Q.65 94	1) Simple for practise		Understood	
66	Q.66 MCQ 1	1) Using sin ratio		Understood	Revision
67	Q.67 Multiple CQ 2	1) Making good combination for R1 and R2		Understood	Revision
68	Q.68 MCQ 3	1) Making diagram carefully of triangle 2) Using sin ratio on triangle AED 3) Proving triangle AEF is isosceles through congruence		Understood	Revision
69	Q.69 MCQ 4	1) Difference between cosecA and cosecB		Understood	Revision
70	Q.70 Problem 5	1) cosA + cosB 2) Multiply by 2cosA/2 3) Sin transformation for B+C		Understood	Revision
71	Q.71 Problem 7	1) Taking equal to a ratio		Understood	Revision
72	Q.72 Problem 8	1) Taking cosbeta common 2) Using dividendo and compendo 3) Forming tanA/2		Understood	Revision
73	Q.73 Problem 12	1) sinA + sinB formula		Understood	

74	Q.74 Problem 15	1) Range where expression satisfies		Understood	Revision
75	Q.75 17	1) Cos2beta 2) Convert the right hand in favor of cos		Understood	Revision
76	Q.76 19	1) Set of rationals 2) Tantheta definition		Understood	Revision
77	Q.77 20	1) Log handling well 2) See the power's range in given x's range 3) How does that work out?		Understood	Revision
78	Q.78 21	1) Use tantheta and sectheta 2) Use proportionality theorem		Understood	Revision
79	Q.79 22	1) Opening brackets 2) Comparing lhs to rhs 3) Then solve		Understood	Revision
80	Q.80 23	1) Proving each and every option		Understood	Revision
81	Q.81 24	1) Period of sinx and cosx is 2pi 2) Period of sin(nx) = 2pi/n		Understood	Revision
82	Q.82 25	1) Using options, put them into the expression and check		Understood	Revision
83	Q.83 26	1) Check options		Understood	
84	Q.84 27	1) Sum of infinite terms of GP		Understood	Revision
85	Q.85 Prob 1 [Reasoning	1) A circle is inscribed in the		Understood	Revision

	type]	equilateral triangle			
86	Q.86 Prob 2	1) AM >= GM 2) Am of s-a, s-b, s-c		Understood	Revision
87	Q.87 Prob 3	1) Finding value of p1 through area of triangle		Understood	Revision
88	Q.88 Prob 4	1) Using AM >= GM		Understood	Revision
89	Q.89 Prob 5	1) Make the diagram carefully 2) Using (m+n)cottheta = mcotalpha - ncotbeta		Understood	Revision
90	Q.90 Integer Prob 1	1) Taking xyz = t 2) Making system of equation:- matrix		Understood	More Revision
91	Q.91 Prob 2	1) The breaking up tantheta.tan5theta = 0 in sin and cos 2) 3pi/2 = (4n-1).pi/2		Understood	Revision
92	Q.92 Prob 4	1) Putting sin3pi on the left		Understood	Revision
93	Q.93 Prob 5	1) Using all poss. Values of x		Understood	Revision
94	Q.94 Prob 6	1) Putting the eqn in terms of tanx/2 2) Using tan((alpha+beta)/2)		Understood	Revision
95	Q.95 Prob 1.2[Matching]	1) Finding the greatest angle through cos formula		Understood	
96	Q.96 Prob 1.4[Matching]	1) Making (a^2 + b^2)^2 -		Understood	Revision

		2a^2b^2			
97	Q.97 Prob 2.2	1) R1 = delta/(s-a)		Understood	Revision
98	Q.98 Prob 2.3	1) Cosx > 0 2) Cosx < 0		Understood	Revision
99	Q.99 Q.1 Ordinary	1) Transforming cot into tan		Understood	Revision
100	Q.100 Q.2 Ordinary	1) Putting tanthetan2theta onto the right		Understood	
101	Q.101 Q.6	1) The max value of sinx + cosx combination		Understood	Revision
102	Q.102 Q.7	1) At what value of x,y,z the equation will be satisfied?		Understood	
103	Q.103 Q.8	1) Using cos2A and sin2A formula		Understood	
104	Q.104 Q.10	1) Using discrete formula to find sinx and leading to find range of k		Understood	Revision
105	Q.105 Q.11	1) Simple sin^6x + cos^6x formula 2) Minimum and max values being used		Understood	Revision
106	Q.106 Q.14	1) When does cottheta is 0		Understood	Revision
107	Q.107 Q.16	1) Tantheta go to the right hand side		Understood	Revision
108	Q.108 Q.17	1) In terms of cos		Understood	Revision
109	Q.109 Q.23	1) Make things in terms of tan		Understood	Revision
110	Q.110 Q.24	1) Making possible		Understood	Revision

		sin(A-B) + cos(A-B)			
111	Q.111 Q.25	1) Finding root in (a,b) 2) From +ve to -ve in the interval		Understood	Revision
112	Q.112 Q.26	1) Rationalisation 2) To make it real, imaginary part must be zero[doesn't exist]		Understood	Revision
113	Q.113 Q.28	1) In cos terms		Understood	Revision
114	Q.114 Q.41	1) Putting them into sin and cos 2) Making sin(A+B) 3) Logic and moving forward		Understood	Revision
115	Q.115 Q.43	1) Taking tan3theta to the right side 2) Taking tan3theta common in the right side		Understood	Revision
116	Q.116 Q.44	1) Breaking down into sin and cos 2) Multiply cross 3) Using 2npi instead of npi for sin's general soln		Understood	Revision
117	Q.117 Q.45	1) Do it in terms of tantheta		Understood	Revision
118	Q.118 Q.50	1) |k| = +-k 2) When we have costheta = +-1 3) When theta = 0 and pi respectively		Understood	Revision
119	Q.119 Q.1 Periodic	1) Period of sinx and cosx is		Understood	Revision

	function	2pi/n			
120	Q.120 Q.2	1) Sin is dependent on such a function that is not periodic		Understood	Revision
121	Q.121 Q.5	1) For practise		Understood	
122	Q.122 Q.9	1) Period of cotx = pi 2) Lcm of a/p and b/q = [(a,b)'s L.C.M]/[(c,d)'s H.C.F]		Understood	Revision
123	Q.123 Q.10	1) Modulus is there, therefore, you should check for smaller values too		Understood	Revision
124	Q.`124 Q.1 Relation between sides and angles	1) Using sin3B formula 2) Converting sinB into cosB 3) Using cosB formula 4) Putting given value in that formula 5) Converting every part of expression in terms of a and c		Understood	Revision
125	Q.125 Q.2	1) Angles in AP:- B = 60deg 2) Using cos formula 3) Now, you get an eqn 4) Use it in the given value 5) Then use sin ratio concept		Understood	Revision
126	Q.126 Q.3	1) Take one angle alpha, another (90-alpha) [makes sense]		Understood	Revision

		2) Divide the triangle into two triangles 3) Find tanalpha and tan(90-alpha) on each triangle respectively			
127	Q.127 NIMCET-7 Q.33	1) The hill is on the center 2) The point where hill is, it is circumcenter 3) Therefore, from the circumcenter to each point, that will be equal to circumradius 4) Using circumradius property = 2R = a/sinA = b/sinB = c/sinC 5) Throught tanalpha, we can calculate the height of the hill		Understood	Revision
128	Q.128 NIMCET-7 Q.45	1) For practise, use x, y and z for distance		Understood	Revision
129	Q.129 NIMCET-8 Q.10	1) A = B = C(considering it an equilateral triangle)		Understood	Revision
130	Q.130 NIMCET-8 Q.49	1) Letting the triangle is an equilateral triangle[A = B = C = 60deg and a=b=c=1] 2) Method 2:- using cos^2A = 1/2(1+ cos2A)		Understood	Revision
131	Q.131 NIMCET-10	1) As we know, 2R = a/sinA =		Understood	Revision

	Q.1	b/sinB 2) Therefore, a = 2RsinA⇒ a^2 = 4R^2sin^2A 3) Turn the sin^2A into form of cos2A to get the angle			
132	Q.132 NIMCET-10 Q.2	1) a^2 + b^2 = c^2 2) Now, if c is the biggest side, then its reciprocal will the smallest 3) 1/c^2 + 1/b^2 = 1/a^2 ⇒ a^2/c^2 + a^2/b^2 = 1 4) a^2/c^2 = sin^2theta 5) Make everything related to sintheta			
133	Q.133 NIMCET-11 Q.47	1) A + b + c = 16 2) B + c = 10 3) Use triangle's area formula based on semiperimeter 4) (s-b)(s-c) = s^2 - S(b+c) + bc		Understood	Revision
134	Q.134 NIMCET-12 Q.10	1) 3k + 5k + 10k = 180 2) K = 10 3) a/sinA = b/sinB = c/sinC = constant concept 4) The highest angle will have the largest side and vice-versa		Understood	Revision
135	The largest value of sinAsinBsinC in a triangle	3sqrt(3)/8 when all angles are 60 deg			

136	Q.136 NIMCET-14 Q.19	1) Read question carefully 2) The angle subtend by the tree on the opposite bank is 60 deg and when he retreat back [when he go away from the initial point by 40m] the angle turns down to 30 deg		Understood	
137	Q.137 NIMCET-14 Q.47	1) Make the side be a and b as ksinA and ksinB respectively [sin ratio concept]		Understood	
138	Q.138 NIMCET MOCK	1) Using half angle formula of tan 2) tan(theta/2) = delta/[s(s-a)]		Understood	
139	Q.139 NIMCET MOCK	1) c/a is 1/sintheta 2) c/b is 1/costheta 3) Then solve		Understood	Revision

Note: *If you find these resources genuinely helpful, you're welcome to contribute any amount — even as little as ₹1 — or whatever you feel comfortable with. Every bit of support means a lot:-* 👉 *UPI ID:- negiarpit2003@okhdfcbank*