1. If = sin. sin and y = cos. cos, then what is y equal to?

(a) (b)

(c) (d)

2 Two poles are 10 m and 20 m high. The line joining their tops makes an angle of with the horizontal. The distance between the poles is approximately equal to

(a) 36.3 m (b) 37.3 m

(c) 38.3 m (d) 39.3 m

3 The value of + + + is

(a) 2 (b)

(c) (d) 1

4 The value of is equal to

(a) (b)

(c) (d)

5 If cos, then what is the value of (?

(a) (b)

(c) (d)

6 Let S be the set of all distinct numbers of the form , where p,q{1,2,3,4,5,6,}. What Is the cardinality of the set S?

(a) 21 (b) 23 (c) 32 (d) 36

1. If A = {1,2,5,6} & B = {1,2,3} then what is equal to?

8 The value of sin2 50  + sin2 50  +sin2 100  +sin2 150  +sin2 200  +--------+sin2 900  is

(a) 7 (b) 8 (c) 9 (d) 19/2

9 If sinx + siny = a andcosx + cosy = b, then tan2() + tan2() =

(a) (b) (c) (d) None of these

1. If A = (cos120  - cos360 )(sin960  + sin240 ) and B = (sin600  - sin120 )(cos480  - cos 720 ), then what is =

(a) -1 (b) 0 (c) 1 (d) 2

(a) {(1,1), (2,1), (6,1), (3,2)} (b) {(1,1), (1,2), (2,1),

11 If  then  is equal to

(a)  (b) 

(c)  (d) 

12. If A,. B, C, D be angles of a cyclic quadrilateral taken in order, then 

(a) 0 (b) 1

(c) - 1 (d)` ½

13. The value of 3 tan610o-27 tan410o+33 tan210o equals

(a) 0 (b) - 1

(c) 1 (d) None of these

14. The equation has a solution if

(a)  (b) 

(c)  (d) 

15. The number of solution of  in  is

(a) 2 (b) 3

(c) 0 (d) 1

16. The value of  is

(a) 0 (b) 1

(c)  (d) Not defined

17. Which of the following is correct ?

(a)  (b) 

(c)  (d) 

18. If for real values of , then

(a) is an acute angle (b)  is right angle

(c) is an obtuse angle (d) No value of  is possible

19. If  then  is equal to

(a)  (b) 

(c)  (d) None of these

20 The value of sin 180 + sin 2340 is –

(a) ½ (b) 3/2 (c) -1/2 (d) -3/2

21. If cos x + cos y = 1/3 and sin x + sin y = ¼ then the value of tan () is –

(a) 4/3 (b) ¾ (c) 3/5 (d) ½

22 What is the value of cos (-22200) ?

(a) 1 (b) -1 (c) -1/2 (d) ½