**Question Bank on Chapter 1 and 2**

Choose the correct answer from the following questions:

1. The domain of this function Ans: c
2. R-{-5}
3. R
4. R-{5}
5. The range of Ans: c
6. [1,1]
7. [1,-1]
8. [-1,1]

(3) the domain of Ans: b

a) (ꚙ,-ꚙ)

b) (- ꚙ,ꚙ)

c) [ꚙ,-ꚙ)

1. The domain of Y= x+3 Ans: b
2. -3
3. R
4. R-{3}

(5) the range of Ans: a

a) [ ,ꚙ)

b) ( ,ꚙ)

c) [ ,ꚙ)

(6) find the focuse Ans: b

a) (2,0)

b) (0,2)

c) (0,-2)

(7) find the radius of circle 4(2x+7)+4 (y-3)2 =100 Ans: c

a) 25

b) 15

c) 5

(8) the center of circle that has diameter (11,8),(5,10) Ans: a

a) (8,9)

b) (9,8)

c) (-8,9)

(9) the diameter for the same circle in the previous question 8 Ans: a

a) 2 square root 10

b) square root 10

c) square root 2

10) the distance between (3,2),(7,8) Ans: a

a) 7.21

b) 9

c) 6.2  
  
Choose right answer:

11) If g(x) = , then g(x) is:

a.Odd. b. Even. c. Neither even or odd. Ans: c

12 ) If f(x) = sin 60, we can say f(x) =. Ans: a

a.

b.

c.

d.

13) Given points, p1:(4,3) , p2:(-4,-3), the distance between p1p2 is: Ans: b

a.6 b. 10 c.8. d.12

14) If circle equation given as:

then the center and radius of the circle are: Ans: c

a.(-2,-2), r=8. b.(-4,4), r=4 c. (2,2), r=8. d. (4,4), r = 4

15) From parabola equation ,then parabola opens: Ans: a

a.Right. b. Left. c.Down. d.up

16) If f(t) = , then f(3) = Ans: b

a.

b. 27 + x

c. 30

17) If , is y is function of x : T or F. Ans: T

18) If f(x) = , the domain is (-infinity, infinity): T or F. Ans: F

19) Number of roots of f(x) = : T or F. Ans: T

20) If circle center point is (0,0) and circle pass through point (3,4), then the radius of the circle is = 4: T or F. Ans: F

21) The radius of the circle  x2 + y2 – 8x + 12y – 25 = 0 is

Select one:

a. 770.5

b. 870.5

c. 570.5

d. 670.5

22) The center of the circle  x2 + y2 – 8x + 12y – 25 = 0  is

Select one:

a. (-2,3)

b. (4,-6)

c. (-4,6)

d. (2,-3)

23) The equation of the directrix of the parabola   y2 + 4y + 4x +2 = 0  is

Select one:

a. x = 3/2

b. x = 1

c. x = -1

d. x = -3/2

24)



Select one:

a. 30

b. 24

c. 26

d. 28

(25)



Select one:

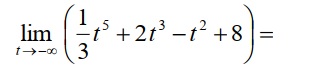
a. -2

b. -1

c. 1

d. 2

(26)



Select one:

a. ∞

b. -∞

c. 0

d. Does not exist

(27) For the function {(0,1), (1,-3), (2,-4), (-4,1)}, write the domain and range.

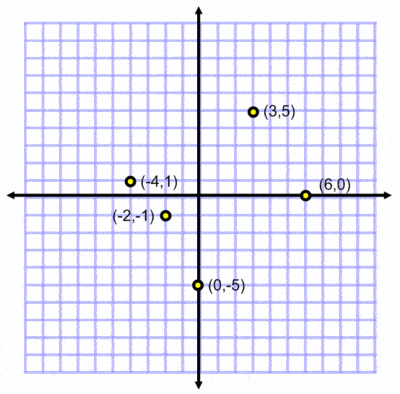
a. D: {1, -3, -4,} R: {0, 1, 2, -4}

b. D:{0, 1, 2, -4} R:{1, -3, -4}

c. D:{0, 1, 2, 3, 4} R:{1, -3, -4}

d. D:{0, 1, 2, 5, 7} R:{-1, -3, -9}

(28) What is the range of the following graph?



a. {-5, -1, 0, 1, 5}

b. {-4, -2, 0, 3, 6}

c. (-4, 1)  ( 6, 0)

d. (6, 0)

29) Evaluate the function at the given value f(x)= , f(-2)

A) -4 B) C) D)

ANS B

30) Evaluate the function at the given value f(x)= ; f(x-2)

A)-3 B)+4 C)-4x+4 D)-4x+3

ANS D

31) Find the domain of the function f(x)=

(-∞, ∞) B) [-2, ∞) C) [-2, ∞)-{-3,3} D) (-∞,∞)-{-3,3}

ANS C

32) Evaluate the piecewise function at the given value of the independent variable.

; f(2)

-9 B) -8 C) -3 D) 1

ANS A

33) Find function h(x) that h(x)= f(x)\*g(x) where f(x)= and h(x)=

A) B) C) D)

ANS D  
  
34) the period of sin (2x) is

B) C) D)

ANS D

35) if f(-x) = -f(x) for every number x in the domain of f then f is

A) linear function B) periodic function C) odd function D) even function

ANS C

36) f(x)= is

A) odd function B) periodic function C) linear function D) even function

ANS A

37) the point in parabola where it passes through y-axis is classified as

a-intercept of parabola

B) c- intercept of parabola

C) x- intercept of parabola

D)y- intercept of parabola

ANS D

38) A line determined by the center and a point on the circle is called

radial segment B) diameter C) chord D) radius

ANS D

39) For the function {(0,1), (1, -3), (2, -4), (-4,1)}, write the domain and range.

a) D: {1, -3, -4} , R: {0, 1, 2, -4}  
b) D:{0, 1, 2, -4} , R:{1, -3, -4}  
c) D:{0, 1, 2, 3, 4} . R:{1, -3, -4}  
d) none of the above

Ans: b) D:{0,1,2,-4} R:{1,-3,-4}  
  
40) If f(x)=3x-9, find f (5).

1. f(5) = 6
2. f(5) = 16
3. f(5) = -4
4. f(5) = 24

Ans: a) f (5) = 6

41) Find the domain and range of the following function, where y is a function of x.

a)  
b) c)

d)

Ans: c)

42) Find the domain and range of the following function, where y is a function of x.

a)

b)

c)

d)

Ans: a)

43) Find the domain and range of the following function, where y is a function of x.

a)

b)

c)

d)

Ans: c)

44) Find the domain and range of the following function, where y is a function of x.

a)

b)

c)

d)

Ans: b)

45) The equation of the tangent at the vertex of the parabola x2 + 4x + 2y = 0 is

1. x = -2
2. x = 2
3. y = 2
4. y = -2

Ans: c) y = 2   
  
46) If the line x + y – 1 = 0 touches the parabola y2 = kx , then the value of k is

a) 4

b) -4

c) 2

d) -2

Ans: b) -4

47) The equation of the latus rectum of the parabola y2 – 6y + 4x – 3 = 0 is

a) x = -2

b) x = 2

c) x = -3/2

d) x = 3/2

Ans: b) x = 2

48) If cos(-t) = 0.34, what is cos(t)?

a) -0.34

b) 0.66

c)0.34

d) -0.66

Ans: c) 0.34

49) Which of the following is not the same as tan(t)?

a) - tan(-t)

b) tan (t + 2π)

c) tan (t + π)

d) tan (t + π / 2)

Ans: d) tan (t + π / 2)

50) If cos t = 0.8, then cos (2 t) =?

a) 0.28

b) 0.4

c) 1.0

d) 1.6  
  
Ans: a) 0.28

51) In the equation (x-3)2+(y-2)2=16, the center of the circle is...

a) (3,2)

b) (-3, -2)

c) (-2, -3)

d) (2,3)

Ans: a) (3,2)

(52) The domain of the function is …

1. ]-∞,∞[
2. [-4,0]
3. ]-∞,∞[-{-4}
4. ]-∞,-4[  
   Ans: c

(53) The function is considered…

1. Even function
2. Odd function
3. Neither even nor odd
4. None of the above   
   Ans: a

(54) If we evaluate at G(1) we get ...

1. 0
2. Undefined
3. -1
4. 1/3  
     
   Ans: c

(55) has range of ..

1. All real values
2. [0,∞[
3. [-2, ∞[
4. ]0,-2]  
     
   Ans: b

(56) When we draw a graph of a function it is impossible to have more than one place in the …

1. The vertical line (y-axes)
2. The horizontal line (X-axes)
3. All the lines could have more than one intersection points
4. Depending on the values we get from substitution   
     
   Ans: a

(57) If then it is considered as a/an…. Function

1. Even function
2. Odd function
3. Neither even nor odd function
4. None of the above   
     
   Ans: b

(58)…. Is the locus of a point moving such that its distance from a fixed point is constant and this fixed point is constant

1. Circle
2. Cube
3. Triangle
4. Square   
     
   Ans: a

(59) Domain is...

1. The set of all the possible input values (commonly on the x-axes)
2. The set of all the possible output values (commonly on the y-axes)  
     
   Ans: a

(60) has a domain of …

1. [0,-1]
2. ]-∞,-1]
3. ] -∞,∞[-{-1}
4. ] -∞,∞[   
     
   Ans: c

(61) The radius of the circle : is …

1. 4
2. 6
3. 12
4. 5  
     
   Ans: b

(62) For the function {(11,-3), (2, -2), (2, 0), (6,2),(18,4)}, write the domain and range.

1. D: {2, -3, -2,4}  
   R: {11, 6, 2, 18}
2. D:{11, 6, 2, 18}  
   R:{2,-2, -3, 4}
3. D:{11, 6, 2, 18, }  
   R:{-2,0,2, -3, 4}
4. none of the above

Ans: c) D:{11,6,2,18} R:{2,-2,0,-3,4}

(63) If f(x)=-1,find f (x-2).

1. f (5) = -3
2. f (5) = +4
3. f (5) = -4x+4
4. f (5) = -4x+3

Ans: d) f (x-2) = -4x+3

(64) Find the domain and range of the following function, where y is a function of x.

1. (-infinity,infinity)­-[2] ,R=(0,infinity)
2. R

Ans: c)

(65)

Ans: a)

(66)

Ans: a) odd

(67) Let f(x)=( x-2) / ( x+ 1). The largest possible domain for F is

1. {*X*; *X* π 2}
2. {*X*; *X* π −1*OR*2}
3. {*X*; *X* π −1}
4. {*X*; *X* π 1*OR*2}

Ans: d

68) the distance between (7, 5) and (-3, -2)(1

a)

b)

c) 36

Ans: a)

(69) Given the parabola, Focus point and directex

1. (3,0),y=2
2. (4,1),y=-2
3. (3,0),y=4
4. (0,3),y=3

Ans:c)

(70) The equation of the latus rectum of the parabola x2 – 4x + 4y – 4 = 0 is

x = -2

x = 2

x = -3/2

x = 3/2

Ans: b) x = 2  
  
  
71) If circle equation given as: then the center and radius of the circle are

The center is (-3,4),R=5

The center is (-4,3),R=5

The center is (6,-8),R=10

The center is (-6,8),R=10

Ans: a)

72) Domain of F(X)=Cot(x) is R-{n𝛑,n€Z}

A)T b)F

Ans T

73) Y =| X| - 4 is not function

T

F

74) The range of is [1,-1]

F

T

Ans: F

75) Which relation is not a function?  
(a)   
(b) -  
(c)   
(d)   
  
Ans:c  
  
(76) The function f is defined on the real numbers by f(x) = 2 + x − x2 What is the value of f(-3)?

(a) -10  
(b) --4  
(c) 8  
(d)   
  
Ans:a  
  
(77) The range of is :  
(a) [-1,1]  
(b) [-1,0]  
(c) R  
(d) none of the above  
  
Ans:a  
  
(78) The domain of is :  
(a)[-1,1]  
(b) R  
(c) R – {(2n+1)\* n€Z}  
(d) R – {n𝛑 n€Z}  
  
Ans:c  
  
(79) The domain of the function ?   
(a) x > -2  
(b) x<2  
(c) -2 <= x <= 2  
(d) 2  
Ans:c

(80) The function f(x) = 3- x is  
(a) even  
(b) odd  
(c) neither even nor odd  
(d) even and odd  
Ans:b

(81) The center of the circle x2 + y2 – 8x + 12y -25 = 0 is  
(a) (2,-3)  
(b) (-2,3)  
(c) (-4,6)  
(d) (4,-6)  
Ans:d

(82) The radius of the circle x2 + y2 – 8x + 12y -25 = 0 is  
(a)   
(b)   
(c)   
(d)   
Ans:c

**(83)** Find the distance between (2,2) and (9,11):

(a) 11.4  
(b) 13.4  
(c) 15.4  
(d) 17.4  
  
Ans:a  
  
(84) Which of the following is not a parabola equation?  
a) x2 = 4ay  
b) y2 – 8ax = 0  
c) x2 = by  
d) x2 = 4ay2Ans:d

(85) If h(z)= then h(-8p) equals :

1. -2p1/3
2. -8p1/3
3. -2ip1/3
4. 2p1/3Ans:a

(86) x-6 = 2(y-3)

1. X is a function of y
2. y is a function of x
3. x is a function of y and y is function of x
4. none  
   Ans:c

(87) x2+y2=4

1. X is a function of y
2. b) y is a function of x
3. c) x is a function of y and y is function of x
4. none  
   Ans:d

(88) y= the range of y is :

1. (-∞,∞)
2. (-∞,∞)-{1}
3. (-∞,∞)-{2}
4. (2, ∞)  
   Ans:d

(89) , the range of y is :

1. (-∞,∞)
2. (-∞,∞)-(0,4)
3. (-∞,∞)-(-4,0)
4. (-∞,∞)-{0,4}  
     
   Ans:b

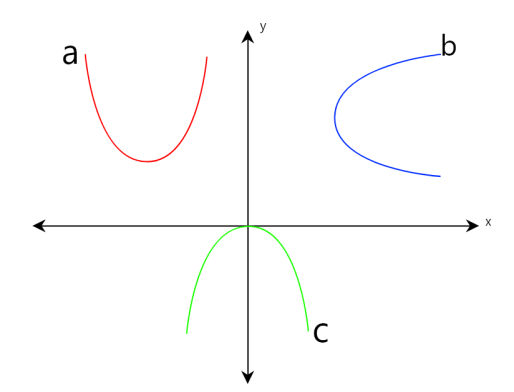
(90) F(x) =x3- is :

1. Even
2. Odd
3. Not even or odd
4. None  
   Ans:b

(91) A circle has its center at (3,4) and intersects with the line y= 2x+1 at point (0,1), what is the radius of this circle :

1. 3
2. 6
3. 0
4. 3  
   Ans:a

(92) The vertex of the parabola = 12(y-2) is the point:

1. (-2,2)
2. (2,-2)
3. (0,0)
4. (2,2)  
   Ans:a

(93) The focus of the parabola = 12(y-2) is the point:

1. (-2,5)
2. (5,-2)
3. (0,0)
4. (-2,-5)  
   Ans:a

(94) Which graph best describes this relation between x,y

= 12(y-2):

1. Graph(a)
2. Graph(b)
3. Graph()
4. None  
     
   Ans:a