Functions

01. If $f(x)=|x-2|$, then which of the following is always true ?

(a) $f(x) = (f(x))^2$ (b) $f(x) = f(-x)$ (c) $f(x) = x - 2$ (d) None of these

02. Which of the following functions will have a minimum value at x = -3 ?

(a) $f(x) = 2x^3 - 4x + 3$ (b) $f(x)=4x^4 - 3x+5$ (c) $f(x) = x^6 - 2x - 6$ (d) None of these

03. Find the maximum value of the functions $1/(x^2 - 3x + 2)$?

(a) 11/4 (b) 1/4 (c) 0 (d) None of these

04. Find the minimum value off function $f(x)= \log(x^2 - 2x + 5)$ (base 2) ?

(a) -4 (b) 2 (c) 4 (d) -2

05. A function f(x) satisfies f(1)=3600 and $f(1) + f(2) + \ldots\ldots f(n) = n^2 f(n)$, for all positive integers n>1. What is the value of f(9) ?

(a) 200 (b) 100 (c) 120 (d) 80

06. Let f(x)= max(2x + 1, 3 – 4x), where x is any real number. Then, the minimum possible value of f(x) is

(a) 4/3 (b) 1/2 (c) 2/3 (d) 5/3

07. Let g(x) be a function such that g(x + 1) + g(x – 1) = g(x) for every real x. Then, for what value of p is the relation g(x + p)= g(x) necessarily true for every real x ?

(a) 5 (b) 3 (c) 2 (d) 6

08. If $f(x)=x^3 - 4x + p$ and f(0) and f(1) are of opposite signs, then which of the following is necessarily true ?

(a) $-1 < p < 2$ (b) $0 < p < 3$ (c) $-2 < p < 1$ (d) $-3 < p < 0$

09. Let g(x) = max (5 – x , x + 2). The smallest possible value of g(x) is ?

(a) 4.0 (b) 4.5 (c) 1.5 (d) None of these

10. Let $f(x)= |x-2| + |2.5 - x| + |3.6 - x|$, where x is a real number, attains a minimum at ?

(a) x = 2.3 (b) x = 2.5 (c) x = 2.7 (d) None of these

11. Largest value of min ($2 + x^2$, $6 - 3x$), when $x > 0$ is

(a) 1 (b) 2 (c) 3 (d) 4

Answers :

1.	D	2.	D
3.	D	4.	B
5.	D	6.	D
7.	D	8.	B
9.	D	10.	B
11.	C		

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ankit jain (http://www.elitmuszone.com/elitmus/functions/#comment-1829) December 4, 2015 at 5:34 AM

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