Solution

BAHRIA UNIVERSITY, (Karachi Campus)

Department of Software Engineering

Quiz 1 - Fall 2022

COURSE TITLE:	Calculus and Analytical Geometry	COURSE CODE:	GSC-110
Class:	BSE-I (C)	Shift:	Morning
Course Instructor:	MR. DANIYAL UR REHMAN	Time Allowed:	20 min
Date:	21-10-2022	Max. Marks:	10 Marks

[CLO1: 5 Marks]

Question No. 1 Find solution of each inequality in interval notation

i) $|x-2| \leq 4$ Answer: $[-2, 6]$

ii) $0 < x \leq 2$ Answer: $(0, 2]$

iii) $-\frac{p}{5} > \frac{2}{5}$ Answer: $(-\infty, -2)$

iv) $x^2 - 16 > 0$ Answer: $(-\infty, -4) \cup (4, \infty)$

v) all real numbers greater than or equal to 13 Answer: $[13, \infty)$

Question No. 2 Identify the True false from the following

i) $2x + 3y = 5$ is the equation of line Passes through $(-1,3)$ with slope -2 False

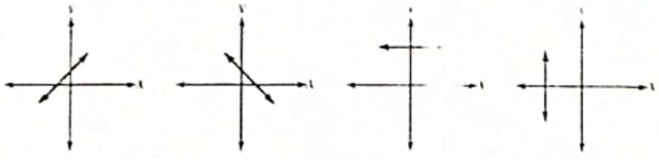
ii) $y = -3$ is the vertical line passes through $(-1, -3)$ True

iii) The horizontal line $y = -5$ is passing through $(-5,4)$ False

iv) If a, b and c is any real number and $c > 0$ than $a < b \rightarrow ac < bc$ True

Question No. 3

Describe the slops of each line



(a) (b) (c) (d)

a) Positive

b) Negative

c) Zero (|| to x-axis)

d) Undefine (|| to Y-axis)

Question No. 4 Find the domain of the following functions

i) $f(x) = \sqrt{x+2}$ $D_f: x \in [-2, \infty)$

ii) $g(x) = \frac{1}{\sqrt{x}}$ $D_f: x \in (0, \infty)$