

BCM SCHOOL BASANT AVENUE DUGRI ROAD LUDHIANA
ASSIGNMENT (SETS, RELATION AND FUNCTION)
CLASS XISC

1	<p>The set $(A \cap B)' \cup (B \cap C)$ is equal to</p> <p>A) $A' \cup B$ B) $A' \cap B$ C) $A' \cup C'$ D) $A' \cup B \cup C$</p>	1
2	<p>Find domain of the function $f(x) = \frac{1}{\sqrt{x+[x]}}$</p> <p>A) $(0, \infty)$ B) $[0, \infty)$ C) $(-\infty, \infty)$ D) $[1, \infty]$</p>	1
3	<p>A and B are two sets such that $n(A - B) = 14 + x$, $n(B - A) = 3x$ and $n(A \cap B) = x$. If $n(A) = n(B)$, Find (i) the value of x (ii) $n(A \cup B)$</p>	2
4	<p>Prove that if $A \cup B = C$ and $A \cap B = \phi$ then $A = C - B$</p> <p style="text-align: center;">OR</p> <p>If A and B are subsets of the universal set U, then show that $A \subset B \Leftrightarrow A \cup B = B$</p>	2
5	<p>If $f(x) = \frac{x^2 - 3x + 1}{x - 1}$, find $f(-2) + f\left(\frac{1}{3}\right)$</p> <p style="text-align: center;">OR</p> <p>Find the domain and the range of the function $f(x) = 3x^2 - 5$ Also find $f(-3)$ and the numbers which are associated with the number 43 in its range.</p>	2
6	<p>Find the domain and the range of the function $f(x) = \sqrt{x^2 - 4}$</p> <p style="text-align: center;">OR</p> <p>Find the domain and the range of the function f defined by $f(x) = \frac{x+2}{ x+2 }$</p>	3
7	<p>Two finite sets have m and n elements respectively. The total number of subsets of first set is 56 more than the total number of subsets of the second set. find the values of m and n.</p>	4