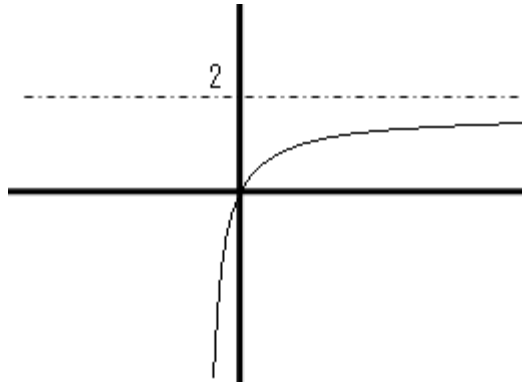


**King Fahd University of Petroleum and Minerals**  
**Mathematical Sciences Department**  
**Math 002-Quiz # 1 (072)**

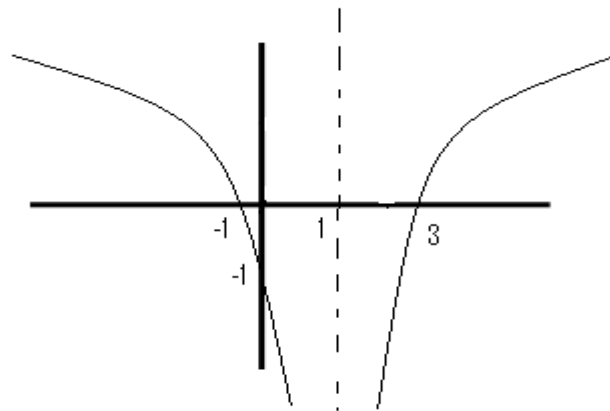
**Student's Name:**..... **ID:** ..... **SR#** .....

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Q1) Sketch the graph of  $f(x) = -(2)^{1-x} + 2$



Q2) Sketch the graph of  $y = -1 + \log_2|x-1|$



Q3) Solve the following equation  $2^{2x+1} - 7(2^x) = 4$

$$2 \cdot 2^x - 7 \cdot 2^x - 4 = 0$$

$$\text{let } u = 2^x$$

$$\Rightarrow 2u^2 - 7u - 4 = 0$$

$$(2u + 1)(u - 4) = 0$$

$$\Rightarrow u = -\frac{1}{2} \text{ or } u = 4$$

$$\Rightarrow \cancel{2^x = -\frac{1}{2}} \text{ or } 2^x = 4 \Rightarrow x = 2$$