Two classmates Salma and Anil simplified two different expressions during the revision hour and explained to each other their simplifications.

Salma explains simplification of $\frac{\sqrt{2}}{\sqrt{5}+\sqrt{3}}$ by rationalizing the denominator and Anil explains simplifications of $(\sqrt{2}+\sqrt{3})(\sqrt{2}-\sqrt{3})$ by using identity $(a+b)(a-b)$.Answer the following question.

Q1.What is the conjugate of $\sqrt{5}+\sqrt{3}$.

   a) $\sqrt{5}+\sqrt{3}$
   b) $\sqrt{5}-\sqrt{3}$
   c) $\sqrt{5}\times\sqrt{3}$
   d) $\sqrt{5}\div\sqrt{3}$

Q2.By rationalising the denominator of $\frac{\sqrt{2}}{\sqrt{5}+\sqrt{3}}$ Salma got the answer:

   a) $\frac{\sqrt{2}}{\sqrt{5}-\sqrt{3}}$

   b) $\frac{\sqrt{2}[(\sqrt{5})-(\sqrt{3})]}{2}$

   c) $\sqrt{5}-\sqrt{3}$

   d) $\frac{\sqrt{2}[(\sqrt{5})+(\sqrt{3})]}{2}$

Q3.Anil applied _____ identity to solve $(\sqrt{5}+\sqrt{7})(\sqrt{5}-\sqrt{7})$

   a)$(a+b)(a+b)$ b) $(a+b)(a-b)$

   c) $(a-b)(a-b)$ d) $(x+a)(x+b)$

Q4. $(\sqrt{2}+\sqrt{3})(\sqrt{2}-\sqrt{3})$=_____

   A) -1
   B) 1
   C) 5
   D) -5

Q5. Addition of two irrational numbers is equal to _____

   a) Rational number

b) Irrational number
c) Whole Number
d) a) or b)

Q6.The value of $\sqrt{3 - 2\sqrt{2}}$ is

    a) $\sqrt{3} - \sqrt{2}$
    b) $\sqrt{3} + \sqrt{2}$
    c) $\sqrt{2} + 1$
    d) $\sqrt{2} - 1$

Q7.If $4^x - 4^{x-1} = 24$, then $(2x)^x$ equals

    a) $\sqrt{5}$
    b) $25\sqrt{5}$
    c) 125
    d) $5\sqrt{5}$

Q8.The value of $\sqrt{5 + 2\sqrt{6}}$ is

    a) $\sqrt{3} - \sqrt{2}$
    b) $\sqrt{5} + \sqrt{6}$
    c) $\sqrt{3} + \sqrt{2}$
    d) $\sqrt{2} - 1$