IMPORTANT NOTE:

1. All questions are compulsory.
2. Marks distribution of each question is shown as per the rules of HSC Board Exam.
3. **Solve it on paper and send the PDF copy of the same on our WhatsApp Group**.

Ques 1: Fill in the blanks by selecting *correct* option from the following: **(1+1+1+1+1=5)**

1) The decimal equivalent of binary number 1000100 is given as _____.
2) The binary equivalent of decimal number 43 will be _____.
3) The 2's complement of 10001000 will be _____.
4) Subtract 10111 from 110000 and select the correct option _____.
5) The decimal equivalent of binary number 111.0010 will be _____.

Options: (62, 86, 68) (101011, 11100, 10101) (1111000, 10101, 1000000)
(1101, 101, 11001) (6.28, 4.12, 7.125)

Ques 2: How to convert a given decimal number into its equivalent binary number using double dabble method. Explain with an example like 18, 44, 67, etc. or any one example you like.   **(3 marks)**

Ques 3: **(a)** Subtract using 1's complement method: $(1110)_2 - (111)_2$,   **(b)** Subtract using 2's complement method: $(1000)_2 - (101010)_2$ **(2+2=4)**

Ques 4: Convert decimal numbers into binary numbers: $(23.25)_{10}$, $(10.5)_{10}$, $(87.0625)_{10}$, $(25.125)_{10}$ **(1+1+1+1=4)**

Ques 5: Convert binary numbers into hex numbers: $(1010010.11101)_2$, $(10001010101110.10111)_2$ **(2+2 =4)**