

EVERWIN VIDHYASHRAM

TT –Computer Science

10.01.20

STD:XI (Con)

Marks:25

I. Answer in short:

4x2=8

- 1.Name some commonly used sorting techniques
2. What is sorting?
3. Define best case.
4. Define worst case.

II. Answer in Brief:

4x3=12

5. Why do number of comparisons reduce in every successive iteration in bubble sort?
6. What is the main difference between Bubble sort and insertion sort techniques?
7. Why insertion sort considered a better algorithm than bubble sort?
8. What is the basic principle of sorting in insertion sort?

III. Answer in Detail:

1x5=5

1. Write a program to sort a sequence using bubble sort.

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TT –Physics

STD:XI (Maj)

Marks:25

Answer the following:

5x5=25

1. State and derive Bernoulli's theorem
2. Explain about hydraulic machines with diagram.
3. At a depth of 1000 m in an ocean
 - a)What is the absolute pressure?
 - b)What is the gauge pressure?
 - c) Find Force acting on the window of area 20cmX20cm of a submarine at this depth, the interior of which is maintained at sea level atmospheric pressure. (The density of sea water is $1.03 \times 10^3 \text{ kgm}^{-3}$, $g=10 \text{ ms}^{-2}$)
4. Explain Pascal's law.
5. What is Streamline flow. Explain.