

(3.5/10)



Course Name & Section _____ Date _____

Student's Name Ameed Hamza Roll No 23L-8025 Signature _____

Question #01

Given binary heap
of size n , find height h

Answer

$$\text{size} = n$$

$$\times \frac{1}{2}$$

$$\text{Height} = \frac{\text{size}}{2}$$

$$= \frac{6}{2} = 3$$

$$= \frac{9}{2} = 4$$

Question #02

Heap Sort

```
void heapsort (int rootright, int bottom)
{
```

```
    int leftchild = 2*i + 1; ✓
    int rightchild = 2*i + 2;
```

```
    if (leftchild < bottom) 2.5 / 8
```

```
        if (leftchild == bottom)
```

```
        {
            maxchild = leftchild;
        }
```

```
    else
```

```
        if (Elements[leftchild] > Element[rightchild])
```

```
        {
```

```
            leftchild = maxchild;
```

```
        }
```

heapify function



$$\frac{9}{3} = 3$$

$$\frac{6}{3} = 2$$

n

n

$$\frac{17}{17.6}$$