

Bharati Vidyapeeth's College Of Engg. For Women, Pune

Department Of Information Technology

Unit Test I (Sem I) 2011-12

Subject: Computer Organization

Class:SE

Marks: 30

Duration: 1 Hour

- Q1. Draw and explain Von Neumann architecture. 6
- Q2. Explain the following terms. 4
- a. System bus
 - b. Program Counter
- Q3. Explain basic instruction cycle. 4
- Q4. Draw and explain hardware implementation of Booth's algorithm. 8
- Q5. Explain Booth's algorithm to multiply the following numbers:
- Multiplicand = + 15
- Multiplier = - 6 8

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Unit Test II (Sem I) 2011-12

Subject: FDS

Class: SE IT

Marks: 50

Duration: 1.30 Hour

1. Write output of each pass of merge sort for the following list :

23,9,80,1,65,10,59,15,48,18 (6)

2. Show output of each pass using bucket sort to arrange the following numbers in ascending order.

56, 12, 84, 56, 28,0,-13,47,94,31,12,-2 (6)

3. Explain binary search with suitable example. (8)

4. What is space complexity of an algorithm ? Explain its importance with example.

(8)

5. Analyze time complexity of the following code segments: (4)

```
a. int process (int no)
{
    if (no<=0)
        return(0);
    else
        return (no + process(no-1));
}
```

```
b. for ( i=1; i<=n; i++)
    for ( j=1; j<=m; j++)
        for ( k=1; k<=p; k++)
            x=x+1;
```

6. Describe the following declarations : (10)
- a. `int *p[5];`
 - b. `int **q;`
 - c. `float (*p) (int no);`
 - d. `int (*q) [3];`
 - e. `int * fun1 (int *x);`
7. Write a C program to accept ,display and find topper from a list of n students, using functions. (8)

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Unit Test II (Sem II) 2010-11

Subject: HSS

Class: SE

Marks: 50

Duration: 1.30 Hour

- Q 1. What is social change? Explain properties of social change. Why social change is important . 8M**
- Q 2. Write a short note on health care and health development in India 8M**
- Q 3. Explain Transportation in India 6M**
- Q 4. Explain different types of non conventional energy sources? Explain any two in detail. 8M**
- Q 5. Explain strategies for industrial developement. 8M**
- Q 6. Explain the importance of environmental education 4M**
- Q 7. Write a short note on soil degradation 8M**
- OR**
- Q 8. What is the need of planning in economic development of India 8M**