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

Department Of Information Technology

Unit Test I (Sem I) 2011-12

Subject: Artificial Intelligence   **Class: BE IT**

Marks: 30   **Duration: 1 Hour**

Q.1 Explain Hill climbing method of problem.   (6 M)

Q.2 Explain A* algorithm. Give an example.   (10 M)

Q.3 Write short notes on.   (8M)

    1) Applications of AI

    2) Constraint satisfaction

Q.4 Cryptarithmetic

    Solve: SEND

          +MORE

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         MONEY   (6M)

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Unit Test I (Sem I) 2011-12

Subject: Information Assurance Securtity   **Class: BE IT**

Marks: 30   **Duration: 1 Hour**

Q.1.Explain the term 'Cryptography'. Give Examples of basic types of Transposition & Substitution Cipher.
[5M]

Q.2.Using RSA choose p=3 and q=11 and encode the word "HELLO". Apply the decryption algorithm to the encrypted version to recover the original plain text message.   [10M]

Q.3.Explain   triple   DES   algorithm   .Explain   attacks   on   DES   algo?
[10M]

Q.4.If one-time pads are provably secure, why are they so rarely used in practices?
[5M]

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Class: B.E.   **Duration**: 1hr

Subject: Mobile Computing   **Marks**:30

Q1. Draw and explain GSM architecture.   8M

Q2. Draw and explain Bluetooth protocol stack.   8M

Q3. Write a short note on any two   12M

   a. VOIP
   b. RFID
   c. WimaX

Q4. Explain cell clusters in GSM.   2M

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Unit Test I (Sem I) 2011-12

Subject:OOMD   **Class: BEIT**

Marks: 30

(Attempt any three from Q.1 to Q.4)

Q.1. What is OMG? What are the objectives of OMG?   **(8 Marks)**

Q.2.Explain structural Things in UML   **(8 Marks)**

Q.3. Explain any eight UML 2.0 Diagram   **(8 Marks)**

Q.4. Explain RUP Phases.   **(8 Marks)**

Q.5.Short Note (Any one)   **(6 Marks)**

    I] Relationships in UML

    II] CORBA

Unit test I

Subject: Software Testing and Quality Assurance   **Max. Marks: 30**
Class: BE IT   **Duration: 1 Hr.**

Note: Solve any three.

Q1. Define the following terms: Errors, Faults, Failures, Test Bed, Test Oracle. Compare Black Box and White Box testing.   **(10)**

Q2. Explain in detail any 5 types of system test.   **(10)**

Q3. Develop black box test cases for an ATM which reads the amount to be withdrawn from the users account. The amount has to be a multiple of Rs.100 and be less than Rs.10,000. **(10)**

Q4. Draw a control flow graph for the code given below. Calculate its cyclomatic complexity. How can you use this value as a measure of testability?   **(10)**

```
Module nonsense()
/* a[ ] and b[ ] are global variables */
begin
        int I,x
        i=1
        read(x)
        while (i<x) do begin
        a[i] = b[i] * x
        if a[i] > 50 then
                print("array a is over the limit")
        else
                print("ok")
                i = i +1
        end
        print ("end of nonsense")
end
```

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