Class   : **II BCA (A & B)**   Date: **16-04-2021**
Paper Code   : **17UCAC42**   Time: **10.00-11.00 am**
Title of the Paper   : **RDBMS**   Max Marks: **30**

Section A   [6 x 1 = 6]
[Answer **ALL** the questions]

1. Who is responsible for ensuring security in a DBMS?
   a) Developer b) Programmer c) Database Administrator d) End-User
2. The other name for conceptual schema is _____.
   a) Logical level b) external level c) Physical level d) view level
3. Which of the following commands is used to modify a column inside a table?
   a) Drop   b) Update   C) Alter   d) Set
4. Primary Key does not allow _____ value.
   a) Integer   b) String c) Null d) Decimal
5. To Select a row in relational algebra uses _____ symbol.
   a) Π   b) σ   c) ρ   d) /
6. The join condition is identical to the _____ Condition.
   a) Selection   b) Projection   c) Division   d) Intersection

Section B   [2 x 7 = 14]
[Answer **ALL** the questions]

7. a) Discuss the advantages of a DBMS in detail.   **[OR]**
   b) Describe the different levels of abstraction?

8. a) What is Trigger? Explain with example.   **[OR]**
   b) Explain Union, Intersection and set difference with example.

Section C   [1 x 10 = 10]
[Answer **ANY ONE** question]

9. Explain the architecture of DBMS.
10. Describe Tuple Relational Calculus in detail.

Class   : **III BCA**   Date: **17.04.2021**
Paper Code   : **17UCAC62**   Time: **10.00-11.00 am**
Title of the Paper   : **Software Testing**   Max Marks: **30**

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Section A   [6 x 1 = 6]
[Answer **ALL** the questions]
</div>

1. Are you building the right product? is suitable for_____.
    a) Validation   b) Verification
    c) Analysis   d) Implementation
2. Who is expected to formally run the inspection according to the process?
    a) Author   b) Moderator
    c) Inspector   d) Scribe
3. When a test case verifies the requirements of the product with a set of expected
output is called _____.
    a) Negative   b) dot
    c) Positive   d) comma
4. The Decision table testing is a _____.
   a)White box test technique   b)Black box test technique
   c)Experience based test technique   d)Grey box test technique
5. Testing the interaction between the modules and interaction with other systems
   externally is called _____ testing.
    a) unit   b) white box
    c) black box   d) Integration
6. _____ is an ad hoc testing where people performing different roles in an organization
   test the product together at the same time.
    a) Scenario   b) top down
    c) Defect bash   d) bottom up

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Section B   [2 x 7 = 14]
[Answer **ALL** the questions]
</div>

7. a) Describe the different phases of software project.   [Or]
    b) Explain about Boundary Value Analysis?
8. a) Discuss about compatibility testing ?   [OR]
    b) Explain state transition testing in black box testing?

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Section C   [1 x 10 = 10]
[Answer **ANY ONE** question]
</div>

9. Explain about Structural testing in white box testing?
10. Explain about different types of integration testing?

Section A[6 x 1 = 6]
[Answer**ALL** the questions]

1. The mechanism of providing required protection to the components of a program are known as ____
   a)encapsulation b)polymorphism c)inheritance d)abstraction
2. Entities that do not change their values in a program are called as _____
   a)Literal   b)character c)global   d)object
3. The statement that helps to select one out of many choices is _____
   a) if else   b) switch   c) continue   d) break
4. A ____ is a variable representing a collection of similar type of data.
   a)Array   b) Function   c) Variable.   D) method
5. An object is an instance of a _____
   a) function   b) class   c) sub function   d) method
6. _____ method cannot be inherited.
   a) final   b) instance   c) public   d) global

Section B[2 x 7 = 14]
[Answer**ALL** the questions]

7. a) Write a short notes on data types in Java **[OR]**
   b) Explain in detail about arrays.
8.   a) Explain method overloading in java.   **[OR]**
   b)How to define and implement aninterface in java. Explain with example.

Section C [1 x 10 = 10]
[Answer **ANY ONE** question]

9. Explain in detail about anytwo control statement with example.
10. Describe the usage of final keyword in class, method and variables.

Section A

Answer ALL the Questions 6X1=6

1. A problem in a search space is defined by which one of these state?
    A. Initial state   B. Last state   C. Intermediate state   D. All of these

2. An AI agent perceives and acts upon the environment using_____
    A. Sensors   B.Perceiver   C. Actuators   D.Both A and C

3. The available ways to solve a problem of stae-space search?
    A. 1   B.2   C. 3   D.4

4. Which AI technique enables the computer to understand associations & relationship between objects and events?
    A. Heuristic Processing   B.Cognitive Science
    C. Relative Symbolism   D.Pattern Matching

5. To overcome the need to backtrack in constraint satisfaction problem can be eliminated by_____
    A. Forward Searching   B.Constraint Propagation
    C. Backtrack after a forward search   D.Omitting the constraints

6. A production rule consists of_____
    A. A set of rule   B. A sequence of steps
    C. Set of rules and sequence of steps   D. Arbitrary representation to problem

Section B

Answer ALL the following questions 2X7=14

7. a) Explain AI techniques in detail.
        (Or)
    b) Write a short note on production systems?

8. a) Explain in detail about Generate and test algorithm.
        (Or)
    b) Write a note on means-end analysis.

Section C

Answer ANY one of the following 1X10=10

9. Write a short note on problem characteristics.

10. Explain Hill Climbing algorithm with an example.

G.T.N.ARTS COLLEGE (Autonomous)
(Affiliated to Madurai Kamaraj University)
(Accredited by NAAC with 'B' Grade)
EVEN SEMESTER [2020-21]
INTERNAL ASSESSMENT TEST – I

Class   : **III BCA (A&B)**   Date: **16.04.2021**
Paper Code   : **17UCAC61**   Time: **12-1 pm**
Title of the Paper : **Python Programming**   Max Marks: **30**

Section A

Answer ALL the Questions   **6X1=6**

1. Which one of these is floor division?
    A. /   B. //   C. %   D. **

2. Which of the following is a Python tuple?
    A. {1,2,3}   B.(1,2,3)   C. [1,2,3]   D.{}

3. In order to store values in terms of key and value pair we use what core datatype?
    A. List   B.Dictionary   C. Tuples   D.Array

4. What is the valuet of the x in Python programming? x=4^12
    A. 2   B.4   C. 8   D.12

5. What is the output of "math.floor(3.4)"?
    A. 3   B.4   C. 4.0   D.3.0

6. Which of the following cannot be a variable?
    A. _init_   B. in   C. it   D. on

Section B

Answer ALL the following questions   **2X7=14**

7. a) Explain features of Python in detail.
    (Or)
   b)Write a short note on decision making statements in Python?

8. a) Explain in detail about Loops in Python.
    (Or)
   b) How to define and calling a recursive function with example programs?

Section C

Answer ANY one of the following   **1X10=10**

9. What are the data types available in python?

10. Write any 10 string formatting functions with example programs?