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#### P.G.D.C.A. (Second Semester) EXAMINATION,

#### May/June-2021

Paper – 203-DBMS

Time: Three Hours

Maximum Marks: 100 Minimum Pass Marks: 40

नोट- सभी प्रश्न हल कीजिए।

Attempt all questions.

## इकाई-I

## (Unit-I)

- उपयुक्त उदाहरण के साथ DBMS (Data base management system) को परिभाषित कीजिये।
  DBMS के सन्दर्भ में निम्न terms को उपयुक्त उदाहरण सिंहत समझाइये।
  - (i) Redundancy.
  - (ii) Security.
  - (iii) Integrity and
  - (iv) Consistency.

Define DBMS (Data Base Management System) giving suitable example.

With reference to DBMS, explain following terms with suitable examples:

- (i) Redundancy.
- (ii) Security.
- (iii) Integrity and
- (iv) Consistency.

## इकाई-II

## (Unit-II)

2. उपयुक्त उदाहरण देते हुए किन्हीं चार पर संक्षिप्त टिप्पणियाँ लिखिए—

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Giving suitable examples, write short notes on any four—

- (i) Cartesian product.
- (ii) Relational calculus and relational algebra.
- (iii) Relational model and its use.

- (iv) Tuple, domain and Attributes.
- (v) Various normal forms.
- (vi) Union and set difference.

### इकाई-III

#### (Unit-III)

3. DBMS में विभिन्न models को प्रयोग करने का क्या उद्देश्य है?

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Models के लाभ, हानि एवं उपयोगों के देते हुये निम्न models की तुलना विस्तार से कीजिये: Relational, Hierarchical and Network.

What is the purpose of using different models of DBMS?

Listing the advantages, disadvantages and applications, compare following models in detail:

Relational, Hierarchical and Network.

## इकाई-IV (Unit-V)

4. Relational algebra के साथ इनके extended operations के बारे में एक विस्तृत नोट लिखिये। 20

Write a detailed note on the structure of relational algebra with its extended operations.

# इकाई-V (Unit-V)

5. किन्हीं चार पर उपयुक्त उदाहरण के साथ संक्षिप्त टिप्पणियाँ लिखिये-

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Write short notes with suitable examples on any four:

- (i) Integrity and SQL.
- (ii) Database integrity.
- (iii) Attribute rules.
- (iv) Domain rules.
- (v) Assertions and Triggers.
- (vi) Relation rules.
- (vii) Integrity rules.