# BCA-202

### **B.C.A. Second Year Examination, 2017**

Paper-II

(Database Management System)

A-THAH

Time Allowed: Three Hours

Maximum Marks: 100

PART-A (खण्ड-अ) [Marks: 20

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART-B (खण्ड-ब) [Marks: 50

Answer five questions (250 words each), selecting one from each Unit. All questions carry equal marks.

प्रत्येक इकाई में से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

## PART\_C (खण्ड-स) [Marks: 30

Answer any two questions (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो। सभी प्रश्नों के अंक समान हैं।

#### PART-A

(Database Management System)

- Answer the following questions: 1
  - Define Data abstraction. (i)
- (ii) What is E-R model?
  - (iii) Define Catalog.
  - (iv) Differentiate between Base table and figure of View.
    - Differentiate between Count(c) and (v) Count(\*) function.

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- (vi) Define Data definition.
- (vii) Define Network system.
  - (viii) Define Virtual records.
  - Define Indexing. (ix)
  - Define Hashing. (x)

#### PART-B

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- 2. What do you understand by DBMS system?

  Discuss its advantages over file based system.
- 3. What are the components of an E-R model? Explain with example.

#### UNIT-II

- 4. Write short notes on the following:
  - (a) Relational database.
  - (b) Relational data objects.
- 5. Explain different types of Keys with the suitable example.

## UNIT-III

- 6. Write short note on SQL language.
- 7. What are Views? Explain with example.

#### UNIT-IV

3

- 8. Explain DBTG CODASYL Model.
- 9. Explain Hierarchical Model.

#### UNIT-V

- 10. Write short notes on the following:
  - (a) Logical and Physical file organization.
  - (b) Sequential and Random file organization.
- 11. What are the advantages of B-tree indexes?

### PART-C

- 12. Explain Specialization, Generalization and Aggregation with example.
- 13. Explain relations and predicates with the help of example.
- 14. Explain update statement, groupby and orderby clause with example.
- 15. Explain Network Model with example.
- 16. Discuss Ordered file organization. Also discuss issues related to insertion, deletion and searching operations in the file organization.

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