Deptt.

Total Pages : 6

ITD-104

Post Graduate Diploma in Computer Application Examination, 2018

DATABASE MANAGEMENT SYSTEM

Paper–IV

Time Allowed : Three Hours
Maximum Marks : 75

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 पचास शब्दों से अधिक न हो।
सभी प्रश्नों के अंक समान हैं।

PART - B (खण्ड-ब) [Marks : 35

Answer *five* questions (250 words each).
Selecting *one* from each unit. All questions carry equal marks.
प्रत्येक इकाई 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 : 20

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

UNIT - I

1. (i) What is database ?

(ii) Define physical model.

UNIT - II

(iii) What is meant by attributes ?

(iv) Define specialization.

UNIT - III

(v) Define the foreign key.

(vi) What is relational algebra ?

UNIT - IV

(vii) What is SQL.

(viii) What are SQL operators ?

UNIT - V

(ix) Define integrity constraints.

(x) What are the dimensions of security ?

PART-B

UNIT - I

2. Write about advantages of DBMS.

3. Differentiate between logical and physical model with example.

UNIT - II

4. Write the components of an E-R model.

5. Define RDBMS. Compare RDBMS with DBMS.

UNIT - III

6. Explain the following relational algebra operations project, cartesion product, natural join.

7. Why normalization is required ? Discuss the first, second normal form.

UNIT - IV

8. What is embedded SQL ? Explain.

9. What are the characteristics of SQL ?

UNIT - V

10. Explain the various integrity constraints.

11. Describe the authenticaing users to the database.

PART-C

UNIT - I

12. What do you understand by DBMS ? Explain the goals and objectives of data base management system.

UNIT - II

13. Discuss the E-R model. How ER diagram is reduced into table ? Explain by taking a suitable example.

UNIT - III

14. What do you mean by relational algebra ? What is difference between relational algebra and relational calculus? Write different operators available in relational algebra.

UNIT - IV

15. What are comparison operators and logical operators in SQL ? Explain with example.

UNIT - V

16. Explain the following :

(a) Data security risks

(b) Database users