This question paper contains 2 printed pages.

B.C.A. (Part - II)

234 **Data. Mana. Sys.**

B.C.A. (PART II) EXAMINATION - 2018

(Faculty of Science)

(Three-year Scheme of 10 + 2 + 3 Pattern)

Paper - 234

(Database Management System)

Time allowed : Three Hours

Maximum Marks : 100

PART - I: **(Very Short Answer) consists of 10 questions of 2 marks each. Maximum limit for each question is up to 40 words.**

PART - II: **(Short answer) consists of 5 questions of 4 marks each. Maximum limit for each question is up to 80 words.**

PART - III: **(Long answer) consists of 5 questions of 12 marks each with internal choice.**

PART - I

1. (a) Give any four drawback of file System.
   (b) What is mean by data independance?
   (c) What is mean by candidate Key?
   (d) Define Schema.
   (e) What is mean by Transactions?
   (f) Define Access control.
   (g) Define views.
   (h) What is mean by Aggregate functions?
   (i) Define concurrency control.
   (j) Give four features of Object Oriented Databases. [10 x 2 = 20]

PART - II

2. (a) Discuss the architecture of DBMS.
   (b) Write a note on Generalization and aggregation.
   (c) What is mean by boyce codd NF? Explain.
   (d) Write a note on types of SQL commands and SQL operators.
   (e) Write a note on Object-Relational Databases. [5 x 4 = 20]

PART - III

3. (a) Discuss the advantages and disadvantages of DBMS.
   (b) Define Instances. 10+2

OR

Write short notes on-
(i) Database Administrator
(ii) Data Base System v/s File System 6+6

4. (a) Discuss Entity Relational Model with example.
   (b) What is mean by mapping constraints? 9+3

OR

Write short notes on-
(i) Operations of Relational Algebra
(ii) Keys 6+6

5. (a) Explain 1st, 2nd and 3rd normal forms with example.
   (b) What is mean by Backup and Recovery? 8+4

OR

Write short notes on-
(i) Functional Dependencies
(ii) Transactions & their states.
(iii) Loss Less decomposition 4+4+4

6. (a) Discuss the characteristics and advantages of SQL.
   (b) What is mean by minus in SQL? 10+2

OR

Write short notes on-
(i) SQL Data types
(ii) Aggregate Functions
(iii) Tables and Indexes 4+4+4

7. (a) Discuss Distributed Query Processing.
   (b) Explain Object-Oriented Data Model. 6+6

OR

Write short notes on-
(i) Object-Oriented Databases
(ii) Distributed Transactions
(iii) Persistend Programming Languages 4+4+4