Roll No. Total No. of Questions: 09] www. allingects44704.com [Total No. of Pages: 02 B.Tech. (Sem. - 7th /8th) **DATABASE MANAGEMENT SYSTEMS SUBJECT CODE: CS-305 Paper ID** : [A0440] [Note: Please fill subject code and paper ID on OMR] Maximum Marks: 60 Time: 03 Hours **Instruction to Candidates:** Section - A is Compulsory. 1)

- Attempt any **Four** questions from Section B. 2)
- Attempt any Two questions from Section C. 3)

Section - A

Q1)

 $(10 \times 2 = 20)$

- a) What is role of storage structures in database management system?
- Explain the difference between a weak entity and a strong entity. b)
- What are non-procedural languages? c)
- What do understand by a heterogeneous distributed database? d)
- What are the foreign keys? e)
- What are ER diagrams? f)
- Define shadow paging. g)
- What are log records? h)
- What is data fragmentation? i)
- What is the role of security in normal forms? **i**)

Section - B

 $(4 \times 5 = 20)$

- 02) What are Triggers? Explain all types with SQL examples.
- Q3) Write the SQL commands for Commit and Rollback. And also explain the role of stored procedures in database management system.

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- **Q4**) Demonstrate the use of four character functions; LOWER, UPPER, INITCAP and LENGTH.
- Q5) Write the SQL Commands for the following:
 Identify the syntax and uses of the %ISOPEN cursor attribute.
 Identify the syntax and uses of the %FOUND cursor attribute.
 Identify the syntax and uses of the %NOTFOUND cursor attribute.
 Identify the syntax and uses of the %ROWCOUNT cursor attribute.
- **Q6**) What are Indexes, Package, Cursor and Views? Explain briefly with SQL examples.

Section - C

 $(2 \times 10 = 20)$

- **Q7**) Construct an ER diagram for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted.
- Q8) The students passing in the various subjects are as follows:

| Name | Math | Science | Languages | Total | Average | Result |
|----------|------|-----------------|-----------|-------|---------|--------|
| P Jones | 68 | 90 | 72 | · 230 | 76.66 | Pass |
| M Henry | 95 | 92 [.] | 80 | 267 | 89.00 | Pass |
| J Man | 29 | 67 | 41 | 137 | 45.66 | Fail |
| A Bryan | 45 | 60 | 71 | 176 | 58.66 | Pass |
| W Fringe | 77 | 82 | 64 | 223 | 74.33 | Pass |
| A Lawson | 55 | . 76 | 67 | 198 | 66.00 | Pass |
| B Marsh | 59 | 52 | 41 | 152 | 50.66 | Pass · |

Write the commands in SQL for the following:

- (a) What is average Math Score?
- (b) List of students in the order of merit list.
- (c) List the students who have passed either in Math or Science.
- (d) What is maximum score in language?
- (e) How many students have passed?
- **Q9**) What is normalization? Explain various types of normalizations with the help of suitable examples.

