M. SC. (COMPUTER SCIENCE) SEM – III (CHOICE BASED CREDIT & GRADE SYSTEM) : SUMMER - 2018

${\bf SUBJECT: \ ELECTIVE-I: ADVANCED\ DATABASE\ MANAGEMENT\ SYSTEMS}$

03.00 PM TO 06.00 PM Day Saturday Time: S-2018-0932 Date 28/04/2018 Max. Marks: 60 N.B. 1) All questions are COMPULSORY. 2) Figures to the right indicate FULL marks. **Q.1** Why partitioning is necessary? Differentiate between horizontal and vertical (15)partitioning. OR Elaborate the architecture of parallel database systems. (15)**Q.2** Answer any **ONE**: A) (08)i) Describe the role of geographical information systems in detail. ii) Define Object, Encapsulation, Inheritance, Polymorphism. B) Answer any **ONE**: (07)Describe various types of constructors supported by object oriented i) databases. Explain various local reliability protocols. ii) Answer any THREE: **Q.3** (15)What is fragmentation? Why is it necessary? a) Differentiate between – multimedia database and web database. b) What is meant by data localization? c) Elaborate various intervals used in temporal databases. d) What is object definition language? Give example. e) Write short notes on any THREE: **Q.4** (15)a) Aggregation Data independence b) c) Advantages of OODBMS Fault tolerance in distributed systems d) Query parallelism e)