

CODE: **162611**
NOVEMBER 2020

TIME: 3Hrs
MAX. MARKS : 50

PART A

(10 x 2=20)

Answer any **TEN** questions

1. Define data independence.
2. What are the main characteristics of database approach?
3. Define relationship and relationship set.
4. What is the difference between superclass and subclass?
5. What is heuristic query optimization?
6. What is normalization and its types?
7. Define relational constraints.
8. What is relational mapping?
9. What are the steps involved in query processing?
10. What are the types of database recovery?
11. What are the disadvantages of file processing system?
12. What are the different types of failure in DBMS?

PART B

(2 x 5=10)

Answer any **TWO** questions

13. Compare File systems with database systems
14. Write short notes on the following:
i) Super classes and Subclasses, ii) Inheritance
15. Explain 2NF and 3NF in detail.
16. How we made lossless and loss-join in relational model?
17. How would you estimate the cost of query?
18. Explain the object oriented database.
19. Explain functional dependency concepts.
20. What are the main difference between a file processing system and DBMS?

PART C

(2x10=20)

Answer any **TWO** questions

21. Describe the different types of file organization? Explain using a sketch of each of them with their advantages and disadvantages.
22. Explain E-R Model concept and extended E-R model.
23. List and discuss the six inference rules for functional dependencies
24. Consider the following table:
Employee (Emp_no, Name, Emp_city)
Company (Emp_no, Company_name, Salary)
 - i. Write a SQL query to display Employee name and company name.
 - ii. Write a SQL query to display employee name, employee city, company name and salary of all the employees whose salary > 10000
 - iii. Write a query to display all the employees working in 'XYZ' company.
25. Explain about immediate update and deferred update recovery techniques.
