



CBCS SCHEME

15MN73

Seventh Semester B.E. Degree Examination, Aug./Sept.2020 Computer Application in Mining

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FOUR full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the 6 identifiable steps involved in design process. (08 Marks)
b. Explain the benefits of CAD. (08 Marks)

OR

- 2 a. Discuss in detail about the colour and animation in Computer Graphics. (08 Marks)
b. Discuss in detail about the Plotter. (08 Marks)

Module-2

- 3 a. Discuss in detail about the Software Configuration of a graphics system. (08 Marks)
b. Explain in detail about the functions of a graphics package. (08 Marks)

OR

- 4 a. Distinguish between Wire-frame and Solid modeling. (08 Marks)
b. Discuss in detail about the Application of Computer in Mining Industries. (08 Marks)

Module-3

- 5 a. Write an algorithm for Shovel-Dumper combination. (10 Marks)
b. Write an algorithm for Belt conveyor. (06 Marks)

OR

- 6 a. Write an algorithm for Ventilation Network Analysis. (08 Marks)
b. Write an algorithm for Ore Reserve Estimation. (08 Marks)

Module-4

- 7 a. Distinguish between File based system and Database system. (08 Marks)
b. With sketch, explain the three scheme architecture. (08 Marks)

OR

- 8 a. Discuss in detail the different types of attributes. (08 Marks)
b. Discuss in detail about the DBMS interfaces. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-5

- 9 a. Consider the following relational schema and write relational algebra queries:
EMPLOYEE(Name, SS, Salary, Dno, SuperSSN, gender, Address)
DEPARTMENT(Dname, Dnumber, MgrSS)
PROJECT(Pname, Pno, Dnum)
DEPENDENT(ESSN, Dependent_name)
DEPT_LOCATION(Dnumber, Dlocation)
WORKS_ON(Essn, Pno, Hours)
- (i) Find the employees who work for department 5 and whose salary is greater than 25000.
 - (ii) List name and location of the project not controlled by department 2.
 - (iii) Retrieve SSN of all employees who either work in department 4 or directly supervise an employee who works in department 4.
 - (iv) Retrieve list of names of each female employee's dependent.
 - (v) Retrieve the names of manager of each department. (08 Marks)
- b. Explain Select, project, rename and Cartesian product operators with example. (08 Marks)
- OR**
- 10 a. Write a note on Join operator. (08 Marks)
- b. Define normalization. Explain 1NF and 2NF in detail. (08 Marks)

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