DEPARTMENT OF COMPUTER SCIENCE
Dyal Singh College, University of Delhi

(ACADEMIC SESSION, 2023-24)

Course: GE (2nd Part/ 3rd Semester)
Paper Code and Name: Database Management Systems   (TH)

FACULTY

Name of Teacher: Dr. Abha Jain
Contact   : 9873121193   **Email**: abhajain.cs@dsc.du.ac.in

ASSESSMENT DETAILS

Total Marks for the course is 160, comprising following components

- **Attendance – 6 marks**
- **Individual Assignment – 12 marks**
- **Test/Presentation – 12 marks**
- **Final Theory Exam-90 marks**
- **Final Practical Exam-40 marks**

TEACHING PLAN

(Theory on sharing basis- Following teaching plan is in accordance with 1 theory period allocated per week)

Week	Topics Covered/ Assignments/ Test/Presentations
1-2	Entity Relationship Modelling: Conceptual data Modelling - motivation, entities
3-4	Entity types, Attributes, Relationships
5-6	Relationship types, Constraints on relationship
7-8	Entity Relationship Diagram as conceptual data model
9-10	Database Design: Mapping an Entity Relationship diagram to corresponding relational database scheme
11-12	Functional dependencies
13-14	Normal forms, 1NF, 2NF, and 3NF decompositions and desirable properties of them
15-16	Desirable properties of normal forms

(ACADEMIC SESSION, 2023-24)

Course: B.A (Prog) (3rd Part/Vth Semester)
Paper Code and Name: 62345501- IT Fundamentals   **(TH/PR)**

FACULTY

Name of Teacher: Dr. Abha Jain
Contact   : 9873121193   **Email**: abhajain.cs@dsc.du.ac.in

ASSESSMENT DETAILS
Total Marks for the course is 150, comprising following components

- **Attendance – 5 marks**
- **Individual Assignment – 10 marks**
- **Test/Presentation – 10 marks**
- **Final Theory Exam-75 marks**
- **Final Practical Exam-50 marks**

TEACHING PLAN
(Following teaching plan is in accordance with 4 theory periods allocated per week)

Week	Topics Covered/ Assignments/ Test/Presentations
1-2	Introduction to logical organization of computer, input and output devices, keyboard, mouse, joystick, scanner, OCR, OMR, monitor, printer, plotter
3-4	Decimal and Binary Number system
5-6	Primary memory, Secondary memory, Auxiliary memory
7-8	Operating system as user interface, system tools, control panel settings
9-10	Introduction to database, use of spreadsheet as database
11-12	Use of functions and database operations in spreadsheet
13-14	Definition of network, classification of network, LAN, MAN, WAN, distinction among networks
15-16	Internet as a global network, Internet utilities- email, online banking, reservations etc

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(ACADEMIC SESSION, 2023-24)

Course: B.Sc (Hons) Computer Science (3rd Part/Vth Semester)
Paper Code and Name: 32347504- Microprocessors   **(TH/PR)**

FACULTY

Name of Teacher: Dr. Abha Jain
Contact   : 9873121193   **Email**: abhajain.cs@dsc.du.ac.in

ASSESSMENT DETAILS
Total Marks for the course is 150, comprising following components

- **Attendance – 5 marks**
- **Individual Assignment – 10 marks**
- **Test/Presentation – 10 marks**
- **Final Theory Exam-75 marks**
- **Final Practical Exam-50 marks**

TEACHING PLAN

(Theory on sharing basis- Following teaching plan is in accordance with 2 theory periods allocated per week)

Week	Topics Covered/ Assignments/ Test/Presentations
1-2	8086 Hardware Specification, Clock Generator 8284A, Bus Buffering, Bus Timing
3-4	Memory Devices, Address Decoding, 8088 and 80188 Memory Interface
5-6	8086, 80186, 80286 and 80386SX Memory Interface
7-8	Introduction to I/O Interface, I/O Port Address Decoding, The Programmable Peripheral Interface
9-10	8254 Programmable Interval Timer, 16550 Programmable Communications Interface
11-12	Basic Interrupt Processing, Hardware Interrupts, Expanding the Interrupt Structure, 8259A Programmable Interrupt Controller
13-14	Basic DMA Operation, The 8237 DMA Controller
15-16	Introduction to the Pentium Microprocessor, Introduction to the Pentium Pro Microprocessor