

**M.D.UNIVERSITY, ROHTAK**  
**Bachelor of Engineering (Information Technology)**  
**Scheme of studies / Examination**  
**SEMESTER III**  
**Modified 'E' Scheme effective from 2006-07**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	MATH-201-E	<b>Mathematics III (Common with all branches)</b>	3	2	-	5	50	100	-	150	3
2	CSE-201 E	<b>Data Structures &amp; Algorithms (CSE,EL,IT,EI)</b>	3	1	-	4	50	100	-	150	3
3	CSE-203 E	<b>Discrete Structures (CSE,IT)</b>	3	1	-	4	50	100	-	150	3
4	EE-217-E	<b>Digital &amp; Analog Communication (IT,CSE)</b>	3	1	-	4	50	100	-	150	3
5	EE-204-E	<b>Digital Electronics (CSE, IT &amp; common with IV Sem. EL,EE,EI, IC)</b>	3	1	-	4	50	100	-	150	3
6	HUM-201-E	<b>Economics (Common with all branches)</b>	3	1	-	4	50	100	-	150	3
7	IT-201 E	<b>PC Lab. (CSE, IT)</b>	-	-	3	3	50	-	50	100	3
8	CSE-205 E	<b>Data Structures &amp; Algorithms Lab (CSE,IT)</b>	-	-	3	3	50	-	50	100	3
9	EE-224-E	<b>Digital Electronics Lab (Common with 4<sup>th</sup> Sem. - EL,EE,EI, IC)</b>	-	-	2	2	25	-	25	50	3
		<b>TOTAL</b>	<b>18</b>	<b>7</b>	<b>8</b>	<b>33</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

**NOTE:**

- 1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.**
- 2. The practical hours for the subjects IT-201 E (PC Lab) and CSE-205 E (Data Structure & Algorithms Lab.) has been increased from 2 hours to 3 hours. The marks of class work as well as practical examination in these subjects have been increased from 25 each to 50 each. Thus the total marks for these subjects shall be 100 in place of 50 from the session 2006-07.**
- 3. The grand total of semester marks shall be 1150 in-place of 1050 marks.**

**M.D.UNIVERSITY, ROHTAK**  
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**Scheme of studies / Examination**  
**SEMESTER IV**  
**Modified 'E' Scheme effective from 2006-07**

Sl. No.	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of class work	Theory	Practical	Total	
1	CSE-202 E	Data Base Management Systems (CSE,IT)	3	1	-	4	50	100	-	150	3
2	CSE-204 E	Programming Languages (CSE,IT)	3	1	-	4	50	100	-	150	3
3	CSE-208 E	Internet Fundamentals (CSE,IT)	3	1	-	4	50	100	-	150	3
4	IT-202 E	Object Oriented Programming using C++ (CSE,IT)	3	1	-	4	50	100	-	150	3
5	CSE-210 E	Computer Architecture & Organization (CSE, IT and common with V-sem. EL,EI,IC)	3	1	-	4	50	100	-	150	3
6	IT-204 E	Multimedia Technologies (Common with CSE – V Sem.)	3	-	-	3	50	100	-	150	3
7	CSE-216 E	Data Base Management Lab.	-	-	2	2	25	-	25	50	3
8	IT-206 E	C++ Programming Lab. (CSE,IT)	-	-	2	2	25	-	25	50	3
9	IT-208 E	Multimedia Technologies Lab (Common with CSE – V Sem.)	-	-	2	2	25	-	25	50	3
10	CSE-214 E	Internet Lab. (CSE, IT)	-	-	2	2	25	-	25	50	3
11	GPIT-202 E	General Proficiency	-	-	-	-	50	-	-	50	3
		TOTAL	<b>18</b>	<b>5</b>	<b>8</b>	<b>31</b>	<b>450</b>	<b>600</b>	<b>100</b>	<b>1150</b>	<b>-</b>

**Note:**

- 1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.**
- 2. Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the V semester.**
- 3. A new lab. Data Base Management Lab. (CSE-216-E) has been introduced w.e.f. 2006-07.**

**M.D. UNIVERSITY, ROHTAK**  
**Bachelor of Engineering (Information Technology)**  
**Scheme of studies / Examination**  
**SEMESTER V**  
**Modified 'E' Scheme effective from 2007-08**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	IT-301-E	Rapid Application Development	3	1		4	50	100	-	150	3
2	IT-303-E	System Programming & System Administration (Common with CSE – VIth Sem)	3	1	-	4	50	100	-	150	3
3	IT-305-E	Computer Networks (IT, AEI, Common with CSE & EL– VIth Sem)	3	1	-	4	50	100	-	150	3
4	CSE-301-E	Principles of Operating System (CSE,IT)	3	1	-	4	50	100	-	150	3
5	EE- 309-E	Microprocessor & Interfacing (EL,CSE,IT,EI, IC, EEE, AEI)	3	1	-	4	50	100	-	150	3
6	CSE-303-E	Computer Graphics (CSE,IT)	3	1	-	4	50	100	-	150	3
7	IT-307-E	Rapid Application Development Lab	-	-	2	2	25	-	25	50	3
8	CSE-309-E	Computer Graphics Lab (CSE,IT)	-	-	3	3	50	-	50	100	3
9	CSE-313-E	Operating Systems Lab. (CSE, IT Common with CSE – V Sem)	-	-	2	2	25	-	25	50	3
10	EE-329- E	Microprocessor & Interfacing Lab. (CSE, IT, EL, EI, IC, AEI, EEE)	-	-	2	2	25	-	25	50	3
11	IT-309-E	Practical Training-I	-	-	2	2	-	-	-	-	-
		<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>11</b>	<b>35</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

**Note:**

- 1) Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
- 2) The marks of class work as well as practical examination in the subject CSE-309 E (Computer Graphics Lab.) has been increased from 25 each to 50 each. Thus the total marks for the subjects shall be 100 in place of 50 from the session 2007-08.
- 3) Assessment of Practical Training-I, undergone at the end of IV semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.
- 4) The course number of the subject of Operating System Lab. has been changed from CSE-308E to CSE-313E and will be implemented w.e.f. 2007-08.

**M.D. UNIVERSITY, ROHTAK**  
**Scheme of studies & Examination**  
**Bachelor of Engineering (Information Technology)**  
**Semester VI**  
**Modified E' Scheme effective from 2007-08**

Sl. No.	Course No.	Subject	Teaching Schedule				Examination Schedule				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	IT-302 E	Network Programming	3	1		4	50	100	-	150	3
2	CSE-302 E	Principles of Software Engineering (CSE,IT)	3	1	-	4	50	100	-	150	3
3	CSE-304 E	Intelligent Systems (CSE,IT)	3	1	-	4	50	100	-	150	3
4	CSE-307 E	Web Development (Common with CSE – V Sem.)	3	1	-	4	50	100	-	150	3
5	EE-402-E	Wireless Communication (CSE, IT and Common with 8 <sup>th</sup> Sem–EL)	3	1	-	4	50	100	-	150	3
6	EE-407-E	Digital Signal Processing	3	1	-	4	50	100	-	150	3
7	IT-304 E	Network Programming Lab. (EL,IT, AEI)	-	-	2	2	25	-	25	50	3
8	CSE-306 E	Intelligent Systems Lab. (CSE,IT)	-	-	3	3	25	-	25	50	3
9	CSE-311 E	Web Development & Core JAVA Lab. (Common with V Sem – CSE)	-	-	2	2	25	-	25	50	3
11	GPIT-302 E	General Proficiency	-	-	-	-	50	-	-	50	
		<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>7</b>	<b>31</b>	<b>425</b>	<b>600</b>	<b>75</b>	<b>1100</b>	<b>-</b>

**Note:**

- 1) Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the VII semester.
- 2) Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
- 3) The practical hour for the subject CSE-306 E (Intelligent System Lab.) has been increased from 2 hours to 3 hours w.e.f. this session 2007-08.

**M.D.UNIVERSITY, ROHTAK**  
**Scheme of studies & Examination**  
**Bachelor of Engineering (Information Technology)**  
**SEMESTER VII**  
**Modified 'E' Scheme effective from 2006-07**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	IT-401 E	Data Warehousing & Data Mining	3	1	-	4	50	100	-	150	3
2	CSE-403E	Software Project Management (CSE,IT)	3	1	-	4	50	100	-	150	3
3	IT-403 E	System & Network Administration	3	1	-	4	50	100	-	150	3
4	IT-405 E	Introduction to E-commerce & ERP	3	1	-	4	50	100	-	150	3
5		*OPEN ELECTIVES	4	-	-	4	50	100	-	150	3
6	IT-407 E	System & Network Administration Lab.	-	-	3	3	25	-	50	75	3
6.	CSE-409 E	Visual Porgramming Lab. (CSE, IT)	-	-	2	2	25	-	50	75	3
7	IT-409 E	Project	-	-	4	4	50	-	-	50	
8	IT-411 E	Practical Training-II	-	-	2	2	-	-	-	-	-
<b>TOTAL</b>			<b>16</b>	<b>4</b>	<b>11</b>	<b>31</b>	<b>350</b>	<b>500</b>	<b>100</b>	<b>950</b>	

List of Open Electives

1	HUM-451-E	Language Skills for Engineers	8	CSE-451-E	Artificial Intelligence & Expert Systems
2	HUM-453-E	Human Resource Management	9	CSE-303-E	Computer Graphics
3	HUM-457-E	Business Communication	10	IC-455-E	Intelligent Instrumentation for Engineers
4	HUM-455-E	Entrepreneurship	11	IC-403-E	Embedded Systems
5	PHY-451-E	Nano technology	12	CH-453-E	Pollution & Control
6	PHY-453-E	Laser Technology	13	IT-471-E	Management Information System
7	ME-451-E	Mechatronics Systems	14	IT-204-E	Multimedia Technologies

**Note:**

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
2. \*Student will be permitted to opt for any one elective run by the other departments. However, the departments will offer only those electives for which they have expertise. The choice of the students for any elective shall not be a binding for the department to offer, if the department does not have sufficient faculty strength.
3. Assessment of Practical Training-II, undergone at the end of VI semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.
4. Project load will be treated as 2 hours per week for Project Coordinator and 1 hour for each participating teacher. Project will commence in VII semester where the students will identify the Project problem, complete the design/procure the material/start the fabrication/complete the survey etc., depending upon the nature of the problem. Project will continue in VIII semester.

**M.D.UNIVERSITY, ROHTAK**  
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**SEMESTER VIII**  
**Modified 'E' Scheme effective from 2006-07**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	CSE-402 E	Distributed Operating System (CSE,IT)	3	1	-	4	50	100	-	150	3
2	CSE-404 E	Advance Java (CSE, IT)	3	1	-	4	50	100	-	150	3
3		DEPT. ELECTIVES I	4	-	-	4	50	100	-	150	3
4		DEPT. ELECTIVES II	4	-	-	4	50	100	-	150	3
5	CSE-406 E	Advance Java Lab. (CSE, IT)	-	-	3	3	50	-	50	100	3
6	IT-409 E	Project	-	-	8	8	50	-	100	150	3
7	IT-402 E	Independent Study Seminar	-	-	4	4	50	-	-	50	
8	*GFIT-402 E	General Fitness for the Profession	-	-	-	-	50	-	100	150	3
		<b>TOTAL</b>	<b>14</b>	<b>2</b>	<b>15</b>	<b>31</b>	<b>400</b>	<b>400</b>	<b>250</b>	<b>1050</b>	

**DEPT. ELECTIVE – I**

1. IT-465-E Network Technology
2. IT-466-E Embedded System Design
3. IT-472-E Introduction to VLSI Design

**DEPT. ELECTIVE – II**

1. IT-467-E Computer Software Testing
2. IT-470-E Web Engineering
4. IT-468-E Logic and Functional programming

**Note:**

- 1) Project load will be treated as 2 hrs. per week for the project coordinator and 1 hour for each participating teacher. Project involving design, fabrication, testing, computer simulation, case studies etc., which has been commenced by students in VII semester will be completed in VIII semester.
- 2) For the subject IT-402-E (Independent Study Seminar), a student will select a topic from emerging areas of Information & Technology and study it thoroughly and independently. Later he will give a seminar talk on the topic.
- 3) A team consisting of Principal/Director, HOD of concerned department and external examiner appointed by University shall carry out the evaluation of the student for his/her General Fitness for the Profession.
- 4) Students will be allowed to use the non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination
- 5) \*The subject GFIT-404-E (General Fitness for the Profession) code has been changed to GFIT-402-E and will be effective from 2006-07.

## ADVANCED JAVA

**CSE-404-E**

L T P

3 1 0

Class Work : 50

Exam. : 100

Total : 150

Duration of Exam. : 3 hrs.

### **UNIT 1: CORE JAVA**

Introduction to Java, Data types, variables, operators, Arrays, Control Statements, Classes & Methods, Inheritance, Exception Handling, Multithreading, Collections, I/O streams, AVVT & Aplet Programming.

### **UNIT 2: NETWORKING**

Connecting to a Server, Implementing Servers, Sending E-Mail, Making URL Connections, Advanced Socket Programming

### **UNIT 3: DATABASE NETWORKING**

**The Design of JDBC. The Structured Query Language, JDBC Installation, Basic JDBC Programming Concepts, Query Execution, Scrollable and Updatable Result Sets, Matadata, Row Sets, Transactions, Advanced Connection Management, Introduction of LDAP**

#### UNIT 4: DISTRIBUTED OBJECTS

**The Roles of Client and Server, Remote Method Invocations, Setup for Remote Method Invocation, Parameter Passing in Remote Methods Server Object Activation, Java IDL and CCRA, Remote Method Calls with SOAP**

#### UNIT 5: SWING

**Lists, Trees, Tables, Styled Text Components, Progress Indicators, Component Organizers**

#### UNIT 6: AWT

**The Rendering Pipeline, Shapes, Areas, Strokes, Paint, Coordinate Transformations, Clipping, Transparency and Composition, Rendering Hints, Readers and Writers for Images, Image Manipulation, Printing. The Clipboard, Drag and Drop**

#### UNIT 7: JAVABEANS COMPONENTS

**Beans, The Bean-Writing Process, Using Beans to Build an Application, Naming Patterns for Bean Components and Events Bean Property Tubes Beaninfo Classes Property Editors Cuatomizes**

#### UNIT 8: SECURITY

**Class Loaders, Bytecode Verification, Security Managers and Permissions, Digital Signatures, Code Signing, Encryption**

#### TEXT BOOK:

**Core Java™ 2, Volume II-Advanced Features, 7<sup>th</sup> Edition by Cay Horetmann, Gary Cornell Pearson Publisher, 2004**

REFERENCE BOOKS:

1. **Professional Java Programming by Brett Spell, WROX Publication**
2. **Advanced Java 2 Platform, How to Program, 2<sup>nd</sup> Edition, Harvey. M. Dietal, Prentice Hall**

Note: Eight questions are to be set – at least one from each unit Students have to attempt any five.

**CSE- 216 E****Database Management Systems Lab**

L     T     P  
-     -     2

Class Work: 25  
Exam: 25  
Total: 50  
Duration of Exam: 3 Hrs.

I. Create a database and write the programs to carry out the following operation :

1. Add a record in the database
2. Delete a record in the database
3. Modify the record in the database
4. Generate queries
5. Generate the report
6. List all the records of database in ascending order.

II Develop a menu driven project for management of database system:

1. Library information system
  - (a) Engineering
  - (b) MCA
2. Inventory control system
  - (c) Computer Lab
  - (d) College Store
3. Student information system
  - (e) Academic
  - (f) Finance
4. Time table development system
  - (g) CSE, IT & MCA Departments
  - (h) Electrical & Mechanical Departments

Usage of S/w:

1. VB, ORACLE and/or DB2
2. VB, MSACCESS
3. ORACLE, D2K
4. VB, MS SQL SERVER 2000

**Note: At least 5 to 10 more exercises to be given by the teacher concerned.**