

**Revised scheme and syllabus
of Master of Computer
Applications
(MCA)**

3 YEARS PROGRAMME

**CHOICE BASED CREDIT BASED SYSTEM
(70:30)**

(w.e.f. session 2015-16)



**Department
of
Computer Science & Engineering
GJUS&T HISAR**

SCHEME OF EXAMINATION
M C A (Choice Based Credit System)
Semester I

Paper No	Nomenclature of Paper	Total Credits
CSL-611	Computer Fundamentals and Problem Solving Through C	4
CSL-612	Computer Organization	4
CSL-613	Discrete Mathematical Structures	4
CSL-614	Software Engineering	4
CSL-615	Computer Oriented Numerical and Statistical Methods using C	4
CSP-611	Software Laboratory –I Programming in C (Based on CSL-611)	2
CSP-612	Software Laboratory –II Numerical and Statistical Methods implementation in C (Based on CSL-615)	2
CSP-613	Seminar	1
Total		25

Semester –II

Paper No	Nomenclature of Paper	Total Credits
CSL-621	Data Structure and Computer Algorithms	4
CSL-622	Computer Networks	4
CSL-623	System Simulation	4
CSL-624	Computer Oriented Optimization Techniques	4
CSL-625	Object-Oriented Systems and C++	4
CSP-621	Software Laboratory –III Data Structure implemented in C/C++ (Based on CSL-621)	2
CSP-622	Software Laboratory –IV Programming in C++ (Based on CSL-625)	2
CSP-623	Seminar	1
Total		25

Semester III

Paper No	Nomenclature of Paper	Total Credits
CSL-631	Data Base Systems	4
CSL-632	Visual Programming using VB	4
CSL-633	Artificial Intelligence	4
CSL-634	Operating Systems	4
CSL- 635	Programme Elective-I	4
CSP-631	Software Laboratory –V Oracle and SQL Programming. (Based on CSL-631)	2
CSP-632	Software Laboratory –VI Programming in VB (Based on CSL-632)	2
CSP-633	Seminar	1
Total		25

List of Elective Papers (3rd Semester)

Programme Elective- I

- i. System Programming
- ii. High Speed Networks
- iii. Theory of Computation
- iv. Computer Architecture and Parallel Processing

Semester IV

Paper No	Nomenclature of Paper	Total Credits
CSL-641	Computer Graphics and Multimedia	4
CSL-642	Data Warehousing and Data Mining	4
CSL-643	Linux and Shell Programming	4
CSL-644	Programme Elective II	4
CSL-645	Programme Elective III	4
CSP-641	Software Laboratory –VII Graphics Programming in C/C++ (Based on 641)	2
CSP-642	Software Laboratory –VIII LINUX and Shell Programming in C/C++ (Based on CSL-643)	2
CSP-643	Seminar	1
Total		25

List of Elective Papers (4th Semester)**Programme Elective – II**

- i. Microprocessor and Interfaces
- ii. Software Project Management
- iii. Management Information Systems
- iv. Principles of Programming Languages
- v. Advanced Database Systems

Programme Elective - III

- i. .NET using C#
- ii. Compiler Construction
- iii. Neural Network
- iv. Security of Information System
- v. Digital Image Processing

Semester V

Paper No	Nomenclature of Paper	Total Credits
CSL-651	Java Programming and Internet Applications	4
CSL-652	Software Testing and Quality Assurance	4
CSL-653	Web Engineering	4
Open Elective		3
CSP-651	Software Laboratory –IX Java Programming (Based on CSL-651)	3
CSP-652	Software Laboratory –X HTML/ CGI using PERL / JSP/ XML (Based on CSL-653)	2
CSP-653	Seminar	1
Total		21

List of Open Electives Papers (5th Semester):

- i. BME – 700 Biomedical Instrumentation
- ii. ECE – 700 Advancements in Communication Systems
- iii. ME – 700 Computer Aided Design & Manufacturing
- iv. MTPT – 700 Advanced Printing Technology
- v. MBA701 E-Commerce Applications
- vi. MBA702 E-Business Information System Management
- vii. MBA703 E-CRM

Semester VI

Paper No	Nomenclature of Paper	Credits
CSD-601	Major Project	14

To be carried out in industry/company under the supervision of official of industry/company where he/she is doing the project. Evaluation and viva-voce is to be done jointly by the two examiners.

Grand total of Credits (from semester I to VI)	135
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Note:

- 1) One credit in theory paper is equivalent to one hour classroom teaching per week.
- 2) One credit in practical/lab course is equivalent to 2 hours practical/lab work per week
- 3) A teacher will conduct practical class in a group of 15-20 students.