# UNIVERSITY OF DELHI DEPARTMENT OF COMPUTER SCIENCE BACHELOR OF SCIENCE (HONORS) COMPUTER SCIENCE COURSE STRUCTURE

The Bachelor of Computer Science (Hons) three-year full time Degree Program shall be in six semesters, viz. Semester I, II, III, IV, V and VI.

#### **SEMESTER I**

Paper No.	Title	Periods Per week	Sem. Exam. Marks	Internal Assess- ment	Exam. Duration (Hours)
				Marks	
101	Programming Fundamentals	4	80	20	3
102	Discrete Structures	4	80	20	3
103	Calculus – I	4	80	20	3
104	Digital Electronics	4	80	20	3
105	Language: Form and Function	4	80	20	3
106	Practical: Software Lab-based on papers 101, and Software tools	8	120	30	6
	(Spreadsheet, Presentation Tools, Internet Application)				

Lab. exercises based on 103 will form a part of Internal Assessment.

#### **SEMESTER II**

Paper No.	Title	Periods Per week	Sem. Exam. Marks	Internal Assess- ment Marks	Exam. Duration (Hours)
201	Data Structures	4	80	20	3
202	Computer Systems Architecture	4	80	20	3
203	Calculus – II	4	80	20	3
204	Probability	4	80	20	3
205	Analog Electronics/Financial Management/Logic	4	80	20	3
206	Practical Software Lab. based on 201	6	80	20	6
207	Practical Digital Electronics Lab. based on 104 of Sem. I)	4	40	10	4

Lab. exercises based on 203 and 204 will form a part of Internal Assessment.

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# **SEMESTER III**

Paper	Title	Periods	Sem.	Internal	Exam.
No.		Per	Exam.	Assess-	Duration
		week	Marks	ment	(Hours)
				Marks	
301	Algorithms	4	80	20	3
302	System Softwares	4	80	20	3
303	Algebra	4	80	20	3
304	Statistics	4	80	20	3
305	Organizational Behavior	4	80	20	3
306	Practical: Software Lab. based on 301	8	120	30	8
	and 302				

Lab. exercises based on 303, 304 will form part of Internal Assessment.

# **SEMESTER IV**

Paper No.	Title	Periods Per week	Sem. Exam. Marks	Internal Assess- ment Marks	Exam. Duration (Hours)
401	Operating Systems	4	80	20	3
402	Software Engineering	4	80	20	3
403	Programming Paradigms	4	80	20	3
404	Differential Equations	4	80	20	3
405	English: Technical Communication	4	80	20	3
406	Practical Software Lab. based on 401, 402, 403	8	120	30	8

Lab. exercises based on 404 will form a part of Internal Assessment.

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## **SEMESTER V**

Paper No.	Title	Periods Per week	Sem. Exam. Marks	Internal Assess- ment Marks	Exam. Duration (Hours)
501	File Structures and Database Systems	4	80	20	3
502	Computer Networks	4	80	20	3
503	Microprocessor	4	80	20	3
504	Numerical Analysis and Scientific Computing	4	80	20	3
505	Economics	4	80	20	3
506	Practical: Lab. Based on 503	4	40	10	4
507	Practical: Software Lab. based on 501, 502	8	80	20	6

Lab. exercises based on 504 will form a part of Internal Assessment.

## **SEMESTER VI**

Paper No.	Title	Periods Per week	Sem. Exam. Marks	Internal Assess- ment Marks	Exam. Duration (Hours)
601	Theory of Computation	4	80	20	3
602	Networks Programming and Administration	4	80	20	3
603	Computer Graphics	4	80	20	3
604	Operational Research Techniques	4	80	20	3
605	* Elective	4	80	20	3
606	Practical: Software Lab. based on 602, 603, 605	8	120	30	8
607	Project Work - Report	4	80**	20	

<sup>\*</sup>Elective one of the following:

Artificial Intelligence
 Multimedia Applications
 \*\* Includes 15 marks for viva-voce