

For Admission Batch 2016-17

**MCA Structure**  
**Scheme of Instruction and Evaluation**  
**I-VI Semester of MCA Programme**  
**Choice Based Credit System**  
**1<sup>st</sup> year MCA**

Code No	Subject	Theory				Practical		
		Lecture Hrs/Week	Credit Theory	University Marks	Internal Evaluation	Hours/Week L/T	Credit Practical	Marks
	<b>Semester – 1</b>							
MCA 101	Problem Solving and Programming Using C	3	3	100	50	2	1	50
MCA 102	Computer Organization and Architecture	3	3	100	50	2	1	50
MCA 103	Business Information System	3	3	100	50	2	1	50
MCA 104	Computer Oriented Numerical Methods	3	3	100	50	2	1	50
MCA 105	Engineering Economics and Financial Accounting	3	3	100	50			
MCA 106	Business Communication	3	3	100	50	2	1	50
<b>TOTAL</b>		<b>18</b>	<b>18</b>	<b>600</b>	<b>300</b>	<b>10</b>	<b>05</b>	<b>250</b>
TOTAL Marks: 1150								
Total Credits: 23								

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Code No	Subject	Theory				Practical		
		Lecture Hrs/Week	Credit Theory	University Marks	Internal Evaluation	Hours/Week L/T	Credit Practical	Marks
	<b>Semester – 2</b>							
MCA 201	Data Structure using C	3	3	100	50	2	1	50
MCA 202	Object Oriented Programming using C ++	3	3	100	50	2	1	50
MCA 203	Operating systems	3	3	100	50	2	1	50
MCA 204	Principles and Practice of Management	3	3	100	50			
MCA 205	Green IT	3	3	100	50			
MCA 206	Mathematical Computing	3-1	4	100	50			
<b>TOTAL</b>		<b>19</b>	<b>19</b>	<b>600</b>	<b>300</b>	<b>6</b>	<b>03</b>	<b>150</b>
TOTAL Marks: 1050								
Total Credits: 22								

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Code No	Subject	Theory				Practical		
		Lecture Hrs/Week	Credit Theory	University Marks	Internal Evaluation	Hours/Week L/T	Credit Practical	Marks
	<b>Semester – 3</b>							
MCA 301	Design Analysis and Algorithms	3	3	100	50	2	1	50
MCA 302	Theory of Computation	3	3	100	50			
MCA 303	Computer Networks	3	3	100	50	2	1	50
MCA 304	Database Management Systems	3	3	100	50	2	1	50
MCA 305	Quantitative Techniques (OR & SM)	3	3	100	50	2	1	50
MCA 306	Advance OS	3	3	100	50			
MCA 307	Minor Project					6	2	100
<b>TOTAL</b>		<b>18</b>	<b>18</b>	<b>600</b>	<b>300</b>	<b>14</b>	<b>06</b>	<b>300</b>
TOTAL Marks: 1200								
Total Credits: 24								

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Code No	Subject	Theory				Practical		
		Lecture Hrs/Week	Credit Theory	University Marks	Internal Evaluation	Hours/Week L/T	Credit Practical	Marks
	<b>Semester – 4</b>							
MCA 401	Programming with Java	3	3	100	50	2	1	50
MCA 402	Computer Graphics and Multimedia	3	3	100	50	2	1	50
MCA 403	Software Engineering	3	3	100	50	2	1	50
MCA 404	Compiler Design and Language Processor	3	3	100	50	2	1	50
MCA 405	Personality and Soft Skill Development					6	3	150
MCA 406	Elective I	3	3	100	50			
MCA 407	Group Discussion/Seminar					4	2	100
<b>TOTAL</b>		<b>15</b>	<b>15</b>	<b>500</b>	<b>250</b>	<b>16</b>	<b>09</b>	<b>400</b>
TOTAL Marks: 1200								
Total Credits: 24								

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Code No	Subject	Theory				Practical		
		Lecture Hrs/Week	Credit Theory	University Marks	Internal Evaluation	Hours/Week L/T	Credit Practical	Marks
<b>Semester – 5</b>								
MCA 501	Artificial Intelligence and Expert System	3	3	100	50	2	1	50
MCA 502	Object Oriented Analysis and Design with UML	3	3	100	50	2	1	50
MCA 503	Internet Technology and Enterprise Java	3	3	100	50	2	1	50
MCA 504	<b>Elective II</b>	3	3	100	50			
MCA 505	<b>Elective III</b>	3	3	100	50			
MCA 506	<b>Elective IV (Open)</b>	3	3	100	50			
MCA 507	Professional Ethics	2-1	2	100	50			
MCA 508	Minor In-house Project and Viva					6	3	150
MCA 509	Summer Internship Evaluation					0	2	100
<b>TOTAL</b>		<b>21</b>	<b>20</b>	<b>700</b>	<b>350</b>	<b>12</b>	<b>08</b>	<b>700</b>
<b>TOTAL Marks: 1750</b>								
<b>Total Credits: 28</b>								

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Sixth Semester						
Code	Training cum Project				Evaluation Scheme	
	Course Name	Hours/week L/T	Credit Theory	Total Marks		Marks
MCA 601	Industrial Training cum Project/ Entrepreneurship Training cum Project	30	20	1000	Evaluation by the Industry	500
					Evaluation by the Institute (Report & Institute Viva)	500
Total		30	20	1000		1000
Total Marks:1000						
Total Credits:20						

Elective – I (Choose any one)

1. MCA 406A: **Embedded System**
2. MCA 406B: **Data Mining and Analysis/ Data Mining Techniques**
3. MCA 406C: **Wireless Communication and Mobile Computing**
4. MCA 406D: **ERP and E-commerce**
5. MCA 406E: **PHP and My SQL**

Elective – II (Choose any one)

1. MCA 504A: **Cryptography and Cyber Law**
2. MCA 504B: **Business Analytics and Big Data**
3. MCA 504C: **Cloud Computing**
4. MCA 504D: **Information Security and Management**
5. MCA 504E: **Dot Net Programming**

Elective – III (Choose any one)

1. MCA 505A: **Distributed System/ Distributed technology**
2. MCA 505B: **Parallel Computing**
3. MCA 505C: **Soft Computing**

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- 4. MCA 505D: **Foundations of Statistical Natural Processing(NLP)**
- 5. MCA505E: **Microprocessor and Assembly Level Language Programming**

Elective – IV (Open - Choose any one)

- 1. MCA 506A: **Mobile Application Development**
- 2. MCA 506B: **Software Testing**
- 3. MCA 506C: **Open Source Technology**
- 4. MCA 506D: **E-Governance and Practice**
- 5. MCA506E: **Internet of Things**
- 6. MCA506F: **Entrepreneurship Development**
- 7. MCA507G: **Marketing Management**
- 8. MCA508H: **Environmental Engineering**

**Note- Minimum Pass Mark from Industry Evaluation is 300 (i.e. 60%).**

**Distribution of Credit Semester wise:**

Semester	Credit
First	23
Second	22
Third	24
Fourth	24
Fifth	28
Sixth	20
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Total	141

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### **Internal Evaluation Scheme**

Assignment	05
Surprise Test	05
Quiz	10
Class Test I & II	30
Total	50
Class Test Time(Hrs.): 1	

**Pass Mark in Internal is 50% of total marks i.e. 25**

### **External Evaluation Scheme**

University Semester Examination of 3 Hours duration.

**Pass mark will be 35% which means students have to score 35 out of 100.**

### **Practical/Sessional Evaluation Scheme**

**Pass mark will be 50% which means students have to score 25 out of 50.**

#### ***Evaluation Scheme***

Daily Performance            -10  
Lab Record                    - 10  
Lab Quiz                        - 05  
Final Experiments & Viva – 25

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Total=50