



# **Faculty of Engineering & Technology**

## *MCA (2 Years)*

### **Scheme of Examination & Detailed Syllabi**

## Course Structure (MCA)

### Master of Computer Application

#### THIRD SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
MCA 301	Database Management System	3	1	-	30	70	100	4
MCA 302	Data Structure & Algorithms	3	1	-	30	70	100	4
MCA 303	Java Programming	4	0	-	30	70	100	4
MCA 304	Data Communications and Networking	4	0	-	30	70	100	4
MCA 305	C# Programming	4	0	-	30	70	100	4
MCA 306	Distributed Systems	4	0	-	30	70	100	4

<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
MCA 307	Java Programming Lab	-	-	2	30	20	50	1
MCA 308	C# Programming Lab	-	-	2	30	20	50	1
MCA 309	Data Structure & Algorithms Lab	-	-	2	30	20	50	1
<b>TOTAL</b>		22	2	6	270	480	750	27

#### FORTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
MCA 401	Design and Analysis of Algorithms	3	1	-	30	70	100	4
MCA 402	Advance Database Management System	4	0	-	30	70	100	4
MCA 403	Artificial Intelligence	4	0	-	30	70	100	4
MCA 404	Object Oriented Analysis and Design	3	1	-	30	70	100	4
MCA 405	Data Warehousing and Data Mining	4	0	-	30	70	100	4
MCA 406	Information Security Systems	4	0	-	30	70	100	4

<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
MCA 407	Advance Database Management System Lab using Oracle 10g	-	-	2	30	20	50	1
MCA 408	Object Oriented Analysis and Design Lab	-	-	2	30	20	50	1
MCA 409	Design and Analysis of Algorithms Lab	-	-	2	30	20	50	1
<b>TOTAL</b>		22	2	6	270	480	750	27

**FIFTH SEMESTER**

<b>THEORY PAPERS</b>		<b>No. of Teaching Hours</b>			<b>Marks Allocation</b>			
<b>Code</b>	<b>Subject/Paper</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>IA</b>	<b>EA</b>	<b>Total</b>	<b>Credits</b>
MCA 501	Linux Programming	3	1	-	30	70	100	4
MCA 502	Discrete Mathematics	4	0	-	30	70	100	4
MCA 503	Enterprise Computing with Java	3	1	-	30	70	100	4
MCA 504	Theory of Computation	4	0	-	30	70	100	4
MCA 505	Core PHP	4	0	-	30	70	100	4

**Elective(Select any one)**

MCA 506.a	Operation Research	4	0		30	70	100	4
MCA 506.b	Advance Computer Network	4	0		30	70	100	4
MCA 506.c	Computer Graphics	4	0		30	70	100	4
MCA 506.d	Advanced Software Engineering	4	0		30	70	100	4

<b>PRACTICALS/VIVA-VOCE</b>		<b>No. of Teaching Hours</b>			<b>Sessional</b>	<b>Practical</b>	<b>Total</b>	<b>Credits</b>
MCA 507	Linux Programming Lab	-	-	2	30	20	50	1
MCA 508	Enterprise Computing with Java Lab	-	-	2	30	20	50	1
MCA 509	PHP Lab	-	-	2	30	20	50	1
<b>TOTAL</b>		<b>22</b>	<b>2</b>	<b>6</b>	<b>270</b>	<b>480</b>	<b>750</b>	<b>27</b>

**SIXTH SEMESTER**

		<b>No. of Teaching Hours</b>			<b>Marks Allocation</b>			
<b>Code</b>	<b>Subject/Paper</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>IA</b>	<b>EA</b>	<b>Total</b>	<b>Credits</b>
MCA 601	Major Project	0	0	0	200	300	500	20
<b>TOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>300</b>	<b>500</b>	<b>20</b>
<b>Grand Total of Credits</b>		<b>66</b>	<b>06</b>	<b>18</b>	<b>1010</b>	<b>1740</b>	<b>2750</b>	<b>101</b>

**L=LECTURER, T= TUTORIAL, P=PRACTICAL, IA=INTERNAL ASSESSMENT, EA=EXTERNAL ASSESSMENT**

**Note : The Project work is to be undertaken in Industrial / Research / Education / Public Sector Organization of Repute.**

**Total credit -101**

**Total credit required -90**