

TILKA MANJHI BHAGALPUR UNIVERSITY

Curriculum and Syllabus

for

Two Years (Four Semesters)

Post Graduate Degree Course

Master of Computer Applications (MCA)

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

(To be effective from 2020-22)

MCA SEMESTER – I					
Code	Title	Marks of ESE	Marks of CIA	Credit	Total Marks
CSC-1	Computer Organization and Architecture	70	30	4	100
CSC-2	Object Oriented Programming in C++ & Data Structure	70	30	4	100
CSC-3	Operating System & Shell Programming	70	30	4	100
AECC-1	Environmental Sustainability & Swachchha Bharat Abhiyan Activities	50	50	4	100
CSC-4	Practical based on CSC-2 & CSC-3	70	30	5	100
		Total		21	500
MCA SEMESTER – II					
Code	Title	Marks of ESE	Marks of CIA	Credit	Total Marks
CSC-5	Data Communication and Computer Network	70	30	4	100
CSC-6	Advance Java Programming	70	30	4	100
CSC-7	Database Management System	70	30	4	100
CSC-8	Design and Analysis of Algorithm	70	30	4	100
AEC-1	Ability Enhancement Courses	70	30	4	100
CSC-9	Practical based on CSC-6 & CSC-7	70	30	5	100
		Total		25	600
MCA SEMESTER – III					
Code	Title	Marks of ESE	Marks of CIA	Credit	Total Marks
CSC-10	Software Engineering	70	30	4	100
CSC-11	Theory of Computation and Automata Theory	70	30	4	100

CSC-12	Artificial Intelligence	70	30	4	100
CSC-13	.Net Programming	70	30	4	100
AECC-2	Human Values, Professional Ethics & Gender Sensitization	50	50	4	100
CSC-14	Practical based on CSC-13	70	30	5	100
		Total		25	600
MCA SEMESTER – IV					
Code	Title	Marks of ESE	Marks of CIA	Credit	Total Marks
EC-1	Minor Project	70	30	4	100
EC-2	Major Project	70	30	10	100
DSE-1	Discipline Specific Elective	70	30	5	100
		Total		19	300

- CSC – Core Courses
 AECC – Ability Enhancement Compulsory Courses
 AEC – Ability Enhancement Courses
 EC – Elective Courses
 DSE – Discipline Specific Elective

<p>List of Ability Enhancement Courses:</p> <ul style="list-style-type: none"> • Computer and IT Skills • Web Designing • Numerical Analysis • Operation Research • Financial Accounting • Organization Behavior • Discrete Mathematics • Computer Graphics • Python Programming • Others 	<p>List of Discipline Specific Elective:</p> <ul style="list-style-type: none"> • Parallel & Distributed Computing • Cyber Security • Cryptography • Quantum Computing • Machine Learning and Soft Computing • Digital Image Processing & Multimedia • Big Data Analysis • Cloud Computing • Compiler Design • Data warehousing and Data Mining • Android Studio • IOT Development
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