

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**  
(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular & Supplementary End Semester Examinations – February 2022

**AGILE SOFTWARE DEVELOPMENT PROCESS AND DEVOPS**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.  
In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Explain the Waterfall and Iterative Models with Advantages and Limitations.	12M	1	3
<b>OR</b>				
Q.1(B)	Discuss the model in which Verification and Validation are done with the SDLC stages.	12M	1	2
Q.2(A)	What is agile software development? How agile methods are different than traditional methods and when to use agile methods? Explain	12M	2	2
<b>OR</b>				
Q.2(B)	Define Evolutionary Model. Compare EVO and Rational Unified Process.	12M	2	4
Q.3(A)	Describe the Extreme Programming (XP) Framework in detail.	12M	3	3
<b>OR</b>				
Q.3(B)	Discuss the Life cycle phases and Work product roles and practices of EVO.	12M	3	3
Q.4(A)	Explain Continuous Integration practice in detail. How Continuous Integration is important for high performance team? Explain.	12M	4	2
<b>OR</b>				
Q.4(B)	Describe the design organization and architecture of devops.	12M	4	3
Q.5(A)	What do you understand by A/B testing? Explain all the phases of A/B testing process.	12M	5	2
<b>OR</b>				
Q.5(B)	Write short notes on of the following:	12M	5	1
	i. Continuous Feedback			
	ii. Technology Value Stream			
	iii. Continuous Learning and Experimentation.			

**\*\*\* END\*\*\***

Hall Ticket No:

Question Paper Code: 18MCAP409

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**

(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular & Supplementary End Semester Examinations – February 2022

**ARTIFICIAL INTELLIGENCE**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.  
In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	i. What is AI? List of the applications of AI.	4	1	1
	ii. Explain the Role of AI in business and social implications	8	1	2
	<b>OR</b>			
Q.1(B)	Explain any two Uninformed search algorithms with proper illustration.	12	1	3
Q.2(A)	Discuss Alpha-beta pruning algorithm's working principle with example	12	2	3
	<b>OR</b>			
Q.2(B)	i. Elucidate Minimax algorithm in detail with example	8	2	3
	ii. Define game tree and search tree.	4	2	2
Q.3(A)	i. What is the role of Baye's theorem in AI and list out the applications of Baye's theorem.	6	3	1
	ii. Briefly explain substitution and equality in first order logic.	6	3	2
	<b>OR</b>			
Q.3(B)	Discuss in detail about three properties of proportional theorem	12	3	3
Q.4(A)	What is expert system? Explain the basic components of Expert system with neat diagram.	12	4	3
	<b>OR</b>			
Q.4(B)	Explain forward chaining and its advantages and disadvantages	12	4	3
Q.5(A)	i. Explain the Architecture of Automation System and Autonomous System	8	5	3
	ii. Write short notes on autonomous intelligent system	4	5	1
	<b>OR</b>			
Q.5(B)	i. Write brief notes on evaluation of autonomous system	4	5	2
	ii. Discuss ethical principles of AI.	8	5	2

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**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**

(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular &amp; Supplementary End Semester Examinations – February 2022

**CYBER SECURITY AND CYBER FORENSICS**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.

In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Explain in detail about Domains of Cyber Security Policies.	12M	1	2
<b>OR</b>				
Q.1(B)	What are the main motives of attackers? Explain about types of attacks.	12M	1	2
Q.2(A)	List and explain the Security Management goals.	12M	2	3
<b>OR</b>				
Q.2(B)	Explain the Security Frame work in detail.	12M	2	3
Q.3(A)	What is Net Neutrality? How Botnets exploit by attacker to cause cyber-attacks? Explain.	12M	3	2
<b>OR</b>				
Q.3(B)	Discuss in detail about Cyber Infrastructure Issues.	12M	3	2
Q.4(A)	Explain in detail about the process of investigating e-mail crimes and violation.	12M	4	3
<b>OR</b>				
Q.4(B)	Outline the process of preparing to acquire digital evidence, processing an incidence or crime scene and processing data centers with RAID systems.	12M	4	4
Q.5(A)	Consider the situations, Employer files have been deleted, disks have been reformatted, or other steps have been taken to conceal or destroy the evidence. How to recover the evidence using any forensics tool to safe guard the employee?	12M	5	4
<b>OR</b>				
Q.5(B)	Defence Industry Case Study: A defense industry corporation's File Transfer Protocol (FTP) Internet site was compromised by cybercriminals without detection by the company. The cybercriminals placed malicious software (malware) on the Demilitarized Zone (DMZ) computing systems of the corporation. The cybercriminals then used the compromised site to acquire additional "footholds" inside the company and intercept network traffic to include userid and passwords of employees. The corporation security staff eventually identified the compromise when an IT administrator detected employee userid and passwords leaving the company in clear text via an FTP session.	12M	5	4

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(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular &amp; Supplementary End Semester Examinations – February 2022

**ADVANCED JAVA PROGRAMMING**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.

In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	What is JDBC? Explain the steps involved in JDBC application development with an example program.	12M	1	2
<b>OR</b>				
Q.1(B)	Discuss the following components of JDBC. i) DriverManager class ii) Connection interface iii) Statement interface	12M	1	4
Q.2(A)	i) What is servlet? Explain servlet life cycle with neat sketch.	8M	2	2
	ii) Differentiate between GenericServlet Vs HttpServlet.	4M	2	4
<b>OR</b>				
Q.2(B)	What is session tracking? Explain cookies session tracking with complete application development.	12M	2	2
Q.3(A)	i) What are the advantages of JSP over servlets?	6M	3	2
	ii) Explain life cycle of JSP.	6M	3	2
<b>OR</b>				
Q.3(B)	i) Explain MVC architecture.	6M	3	2
	ii) Discuss about Tomcat server.	6M	3	3
Q.4(A)	i) List out the components of JSP with syntax.	4M	4	1
	ii) Explain scriptlet and expression JSP tags with an example program.	8M	4	2
<b>OR</b>				
Q.4(B)	i) List out and explain implicit objects of JSP.	6M	4	4
	ii) How request is forwarded from one JSP page to another JSP page. Explain with example.	6M	4	6
Q.5(A)	What is spring framework? How spring framework creates impact in web and enterprise application development.	12M	5	5
<b>OR</b>				
Q.5(B)	Discuss the following i) J2EE container ii) Web container iii) Dependency Injection	12M	5	4

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Hall Ticket No:

Question Paper Code: 18MCAP413

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**

(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular & Supplementary End Semester Examinations – February 2022

**.NET FRAMEWORK AND C#**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.  
In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	With a neat sketch explain the architecture of .NET.	12M	1	2
<b>OR</b>				
Q.1(B)	Explain Framework Base classes and Libraries in detail.	12M	1	2
<b>OR</b>				
Q.2(A)	With an example explain conditional and looping statement in C sharp.	12M	2	2
<b>OR</b>				
Q.2(B)	What is exception handling? Explain with an example program in C sharp.	12M	2	2
<b>OR</b>				
Q.3(A)	Explain class and object with an example program in C sharp.	12M	3	2
<b>OR</b>				
Q.3(B)	Explain constructor and destructor with an example in C sharp.	12M	3	2
<b>OR</b>				
Q.4(A)	What is multi-threading? Give example in C sharp.	12M	4	2
<b>OR</b>				
Q.4(B)	Explain file handling with an example in C sharp.	12M	4	2
<b>OR</b>				
Q.5(A)	Illustrate and explain any six ASP.NET Web Form Controls.	12M	5	2
<b>OR</b>				
Q.5(B)	Describe the Components of ASP.NET Web Forms with examples.	12M	5	2

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Hall Ticket No:

Question Paper Code: 18MBAP434

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**  
(UGC-AUTONOMOUS)

**MCA III Year I Semester (R18) Regular & Supplementary End Semester Examinations – February 2022**  
**E-BUSINESS**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.  
In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	What is e-business? State its characteristics.	12M	1	1
<b>OR</b>				
Q.1(B)	Explain the considerations to be kept in mind while a framing e-business strategy.	12M	1	2
Q.2(A)	State the differences between e-markets and traditional markets.	12M	2	1
<b>OR</b>				
Q.2(B)	What are the e-procurement models? Explain them in brief.	12M	2	2
Q.3(A)	Explain about data-access middleware.	12M	3	1
<b>OR</b>				
Q.3(B)	Write about transaction-oriented middleware.	12M	3	1
Q.4(A)	Describe legacy system wrapping evaluation technique.	12M	4	1
<b>OR</b>				
Q.4(B)	Give an overview of enterprise application and e-business integration.	12M	4	2
Q.5(A)	Explain in detail about security and reliability for e-business.	12M	5	1
<b>OR</b>				
Q.5(B)	Describe the differences between web services and web-based applications used in support of e-business.	12M	5	2

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Hall Ticket No:

Question Paper Code: 18MBAP435

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**  
(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular & Supplementary End Semester Examinations – February 2022

**ENTERPRISE RESOURCE PLANNING**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.  
In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Discuss elaborately the evolution phases of Enterprise Resource Planning right from its origin to till date.	12M	1	1
<b>OR</b>				
Q.1(B)	Explain the benefits resulting from an ERP implementation in an organisation with suitable illustrations.	12M	1	1
Q.2(A)	Write the following with suitable examples i. ERP Functional Modules ii. Business Process Management	12M	2	2
<b>OR</b>				
Q.2(B)	List out the Objectives of BPR and explain its best business practices.	12M	2	2
Q.3(A)	Describe the ERP implementation methodologies with suitable examples	12M	3	3
<b>OR</b>				
Q.3(B)	'Planning, Evaluation and Selection of ERP systems depends on certain factors of an organization', discuss.	12M	3	3
Q.4(A)	'Success of ERP depends on the change management and implementation', discuss	12M	4	4
<b>OR</b>				
Q.4(B)	What are the factors that are critical for the success and failure of the ERP implementation?	12M	4	4
Q.5(A)	Elucidate the future trends of ERP in the digital economy	12M	5	2
<b>OR</b>				
Q.5(B)	Write a detailed note on i. Cloud Computing ii. ERP add-ons	12M	5	2

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Hall Ticket No:

Question Paper Code: 18MBAP501

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE**

(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular & Supplementary End Semester Examinations – February 2022

**MANAGEMENT INFORMATION SYSTEM**

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.

In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	How the information system impact on organization and business firms?	12M	1	2
<b>OR</b>				
Q.1(B)	Discuss the contemporary approaches to information systems.	12M	1	1
Q.2(A)	Explain basic file organization concepts and the problems of managing data resources in a traditional file environment.	12M	2	1
<b>OR</b>				
Q.2(B)	How a database improves business performance and decision-making?	12M	2	2
Q.3(A)	Explain different System Development Life Cycles with its stages.	12M	3	1
<b>OR</b>				
Q.3(B)	Discuss the important methods of system development.	12M	3	1
Q.4(A)	Explain the components of decision support system.	12M	4	2
<b>OR</b>				
Q.4(B)	Describe the System Vulnerability and Abuse with examples.	12M	4	2
Q.5(A)	What do you understand by ethical and social issues related to systems?	12M	5	1
<b>OR</b>				
Q.5(B)	Write about the verification and validation of system audit.	12M	5	2

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## MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA III Year I Semester (R18) Regular & Supplementary End Semester Examinations – February 2022

### ENTREPRENEURSHIP DEVELOPMENT & PROJECT MANAGEMENT

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.  
In Q.no 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Explain the role played by an entrepreneur in the Indian economy.	12M	1	1
<b>OR</b>				
Q.1(B)	What are the problems faced by women entrepreneurs in India? What measures would you suggest to overcome these?	12M	1	1
Q.2(A)	What is Business Planning process? Explain, how business plan act as an as an entrepreneurial tool?	12M	2	2
<b>OR</b>				
Q.2(B)	Discuss the financial schemes offered by various financial institutions in promotion of entrepreneurship development in India.	12M	2	2
Q.3(A)	What is Project Lifecycle? Discuss Project manager's role and responsibilities.	12M	3	3
<b>OR</b>				
Q.3(B)	What is financial feasibility? How will you determine the financial feasibility of a project?	12M	3	3
Q.4(A)	Define venture capital. Explain various stages involved in venture financing.	12M	4	4
<b>OR</b>				
Q.4(B)	How can agriculture be viewed as an entrepreneurial venture? Design a short Entrepreneurship development programme for the farmer.	12M	4	4
Q.5(A)	What are network diagrams? Explain different types of network diagrams.	12M	5	2
<b>OR</b>				
Q.5(B)	Write short notes on i.MIS in Project ii.Project Audit	12M	5	2

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