MASTER OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE) M.C.A. Sem-II : SUMMER : 2025 SUBJECT: DATA WAREHOUSING & DATA MINING

Day: Thursday Date: 15/05/202	S-26129-2025	Time: 02:00 PM-05 Max. Marks: 60	:00 PM
N.B.			-
1) 2)	Q. No. 7 is COMPULSORY. Attempt ANY FIVE questions from Section – I Out of attempt ANY ONE questions from Section-II.	f the remaining questi	ons
3) 4)	Answers to BOTH the section should be written in the Figures to the right indicate FULL marks.	SAME answer book.	
	SECTION – I		•,
Q.1	What is data reduction strategies, discuss any two strategies discuss any two strategies discuss any two strategies.	rategies for obtaining	[08]
Q.2	Differentiate between Classification and Clustering.		[08]
Q.3	What is Correlation Analysis? Explain its uses.		[08]
Q.4	Explain the Architecture of typical data mining system	1.	[08]
Q.5	Explain descriptive and predictive data mining.		[08]
Q.6 a) b) c) d)	Write short notes on any TWO: Importance of BI Data normalization Data cube operations Tree pruning		[08]
	SECTION-II		
Q.7	Discuss the use and application of Data Warehouse for	sales and marketing.	[10]
Q.8	Explain hierarchical method for clustering with suitab	le example.	[10]
Q.9	What is market basket analysis? Explain it with suitab	le example.	[10]

MASTER OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE) M.C.A. Sem-II: SUMMER: 2025 SUBJECT: DATA WAREHOUSING & DATA MINING

Day: Thursday Time: 02:00 PM-05:00 PM Date: 15/05/2025 S-26129-2025 Max. Marks: 100 N.B. 1) Attempt any FIVE questions from Section - I. 2) Attempt any TWO questions from Section - II. 3) Answers to both the sections should be written in SAME answer book. SECTION-I Q.1 What is data reduction strategies, discuss any two strategies for obtaining reduced data. **Q.2** Differentiate between Classification and Clusterin (12)What is Correlation Analysis? Explain its uses Q.3 (12)**Q.4** Explain the Architecture of typical data mining system. (12)Explain descriptive and predictive data mining. Q.5 (12)Write short notes on any Q.6 (12)Importance of BI a) Data normalization b) Data cube operations c) Tree pruning SECTION - II Discuss the use and application of Data Warehouse for sales and marketing. Q.7 (20)Explain hierarchical method for clustering with suitable example. Q.8 (20)

What is market basket analysis? Explain it with suitable example.

(20)

Q.9

MASTER OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE) M.C.A. Sem-II : SUMMER : 2025 SUBJECT: CLOUD COMPUTING CONCEPTS

Day: Tuesday
Date: 13/05/2025

S-26127-2025

Time: 02:00 PM-05:00 PM

Max. Marks: 100

N.B.

- 1. Attempt ANY FIVE questions from Section I, each question carries 08 marks.
- 2. Attempt ANY TWO questions from Section II, each question carries 10 marks
- 3. Question No. 7 is COMPULSORY it carries 10 marks. and Attempt ANY TWO questions from rest of the questions in Section II, each question carries 10 marks.
- 4. Answers to Sections I & II should be written in SAME answer book.

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	SECTION-I			· af
	사람이 잃어버릇이 살아서 하고 하는 것이 없어 먹어 있다.	CO	BL	
Q.1	What are the main characteristics of cloud computing? How do these features benefit modern organizations?	CO1	BL2	(08)
	on the colonia declarate agreements from providing the colonial section of the			
0 2		001	DY 4	(00)
Q.2	Explain the concept of virtualization and its role in enhancing cloud resource efficiency.	COZ	BL4	(08)
Q.3	Discuss how cloud-based solutions help reduce both capital and operational expenditures for businesses.	CO3	BL4	(08)
Q.4	What are the major challenges organizations face during cloud adoption? How can these be addressed using case-based	CO4	BL5	(08)
	practices?			
		CO1	DI 4	(00)
Q.5	Compare and contrast IaaS, PaaS, and SaaS models with suitable use-case examples for each.	CO2	BL4	(08)
		£ .		(08)
Q.6	Write short notes on ANY TWO	CO2	BL2	(00)
	a) Disaster recovery in cloud	CO2	BL2	
	b) Google Cloud	CO2	BL2	
	c) Cloud Economics	COA	Щ	
18	SECTION – II			
Q.7	A healthcare startup needs to store and process sensitive patient data securely while maintaining system uptime. Suggest a cloud strategy, highlighting availability and	CO	5 BL	5 (10)
	security concerns.			
0.0	An education tech company wants to launch an e-learning ap	•	6 BL	6 (10)
Q.8	that can scale quickly. Recommend a suitable cloud solution with justification.	n		
14	the last the state of the state	~~	E DI	5 (10)
Q.9	A firm want to migrate from on premise software to cloud- based solutions due to budget constraints. Analyze the cost- related factors and suggest the best-suited cloud model.	CO	5 BL	,5 (10)

MASTER OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE) M.C.A. Sem-II: SUMMER: 2025 SUBJECT: DATA STRUCTURES USING PYTHON

Day: Thursday Time: 02:00 PM-05:00 PM Date: 08/05/2025 S-26128-2025 Max. Marks: 60 N.B.: 1) Q.No.7 is COMPULSORY. 2) Attempt ANY FIVE questions from Section - I. Out of the remaining questions attempt ANY ONE questions from Section - II. 3) Answers to both the section should be written in the SAME answer book. 4) Figures to the right indicate FULL marks. SECTION-I Q.1 List and describe use of iterative statements in python. [08] CO1 BL1 Q.2 [08] CO2 BL4 Analyse the use of user defined functions in python. Also comment on default argument/parameter in function. [08] CO1 BL6 Evaluate the use of exception handling in python with example. Q.3 What do you know about stack? Describe use of it in various [08] CO3 BL2 Q.4 applications. What do you know about binary tree? Prepare a binary tree with [08] CO3 BL3 Q.5 following data and explain process about how tree is constructed. 65, 32, 79, 85, 71, 30, 44, 25 [80] Write short notes on ANY TWO of the following: CO1 BL2 Q.6 Type Conversion CO₃ BL₄ a) Red Black Trees CO₂ BL₂ **b**) Circular Queue SECTION-II

Q.7 What is ADT? Design and develop a code to implement Date type [10] CO1 BL3 as ADT.
Q.8 What do you know about polynomial equation? Synthesize use of linked list to solve polynomial arithmetic.
Q.9 Write an algorithm for quick sort and evaluate its use to sort data with example. Also comment on merits and demerits of it.

NACA SEM - WICECS - 5022 - Regularly (USCS - 2013- Distance) MASTER OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE) M.C.A. Sem-II: SUMMER: 2025 SUBJECT: OBJECT ORIENTED SOFTWARE ENGINEERING

Day: Tuesday Date: 06/05/2025

S-26126-2025

Time: 02:00 PM-05:00 PM

Max. Marks: 60

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7.4	u	• •

1) Section- I - Attempt any FIVE questions. Each question carries 08 marks. 2)

Section - II- Question 7 is COMPULSORY, it carries 10 marks. Attempt any ONE question from rest of the TWO questions in Section II, it carries 10 marks. 3)

Answer to both the sections should be written in the SAME answer book. 4)

To the right of each question are mentioned (i) figures, indicating FULL marks, (ii) Course Outcome number (CO), and (iii) Blooms Taxonomy level (BL).

		0.			
		SECTION-I		40 M	arks
Λ1		Tourist 11		CO	BL
Q.1		Explain the various software process models with neat diagrams.	(08)	COI	BL2
Q.2		Differentiate between object-oriented modeling and structured modeling.	(08)	CO2	BL2
Q.3		Define Rational Unified Process (RUP). Explain in detail various phases of Rational Unified Process (RUP).	(08)	CO4	BL3
Q.4		Explain different types of UML diagrams used in advanced structural modeling with suitable examples	(08)	CO4	BL2
Q.5		Draw a Sequence diagram and a Collaboration diagram for a student course registration system.	(08)	CO4	BL3
Q.6		Write short notes on any TWO:	(08)		
		Polymorphism		CO1	BL1
	a)	Package Diagram		CO4	BL2
	b) c)	Deployment Diagram		CO5	BL2
	i.	SECTION-II		20 M	Aarks .
		to the design the TIMI model of a Library	(10)	CO4	BL4
Q.7		You have been asked to design the UML model of a Library	TA AMIA	White I	
	1044	Management System.			
	a)	Answer the following: Identify two types of users and three major functions of the system	1		
	b)	Drow a use case diagram including users and their interactions.			
	c)	Design a sequence diagram for the "Book Issue" process.			
	d)	Justify the need for state chart diagram in this context.			
Q.8		Design the Component and Deployment diagrams for an Online	(10)	CO5	BL3
Ų.o		Shopping System.	× 124		
		Burner :	(10)	CO4	BL3
Q.9		How would you model a Hospital Management System using Interaction diagrams?	(IU)		
		하는 COLUMN 전략하게 되었는 모든 회사전 경향은 살이 그 없다는 사람들 모든 다른 그는 그녀를 들는 고객들을 통해 시작가를 맞는 하면 함께 하는 사람들			

NACA, SEM - If (CHES - 1022 - Regular) (CHES - 2023- Distance) MASTER OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE) M.C.A. Sem-II: SUMMER: 2025

SUBJECT: OBJECT ORIENTED SOFTWARE ENGINEERING

Day: Tuesday Date: 06/05/2025

S-26126-2025

Time: 02:00 PM-05:00 PM

Max. Marks: 60

N.B.:

1) Section- I - Attempt any FIVE questions. Each question carries 08 marks. 2)

Section - II- Question 7 is COMPULSORY, it carries 10 marks. Attempt any ONE question from rest of the TWO questions in Section II, it carries 10 marks.

3) Answer to both the sections should be written in the SAME answer book. 4)

To the right of each question are mentioned (i) figures, indicating FULL marks, (ii) Course Outcome number (CO), and (iii) Blooms Taxonomy level (BL).

				-
	SECTION-I		40 M	arks
			CO	BL
Q.1	Explain the various software process models with neat diagrams.	(08)	COI	BL2
Q.2	Differentiate between object-oriented modeling and structured modeling.	(08)	CO2	BL2
Q.3	Define Rational Unified Process (RUP). Explain in detail various phases of Rational Unified Process (RUP).	(08)	CO4	BL3 : //
Q.4	Explain different types of UML diagrams used in advanced structural modeling with suitable examples	(08)	CO4	BL2
Q.5	Draw a Sequence diagram and a Collaboration diagram for a student course registration system.	(08)	CO4	BL3
0.6	Write short notes on any TWO:	(08)		
			COI	BL1
	Polymorphism Polymorphism		CO4	BL2
b) c)	Deployment Diagram		CO5	BL2
	SECTION-II		20 M	arks
	We have been asked to design the UML model of a Library	(10)	CO4	BL4
Q.7	You have been asked to design and	地区市市市	Maria Par	THE PERSON
	11 Calloring			
a)	Identify two types of users and three major functions of the			
The second	system including users and their interactions.			
b)	- anguence diagram for the Dook Issue process.			
c)	Design a sequence diagram in this context.			
	그는 그는 그는 그는 그는 그는 그는 그를 가는 것이 되었다면 하는 것이 되었다. 그는 그를 가는 것이 없는 것이다. 그는	(10)	CO5	BL3
Q.8	Chapping System.			
		(10)	CO4	BL3
0.0	How would you model a Hospital Management System using	(23)		
Ų.9	Interaction diagrams?			
	Q.2 Q.3 Q.4 Q.5 Q.6 a) b) c)	 Q.1 Explain the various software process models with neat diagrams. Q.2 Differentiate between object-oriented modeling and structured modeling. Q.3 Define Rational Unified Process (RUP). Explain in detail various phases of Rational Unified Process (RUP). Q.4 Explain different types of UML diagrams used in advanced structural modeling with suitable examples Q.5 Draw a Sequence diagram and a Collaboration diagram for a student course registration system. Q.6 Write short notes on any TWO: a) Polymorphism b) Package Diagram c) Deployment Diagram Q.7 You have been asked to design the UML model of a Library Management System. Answer the following: a) Identify two types of users and three major functions of the system b) Draw a use case diagram including users and their interactions. c) Design a sequence diagram for the "Book Issue" process. d) Justify the need for state chart diagram in this context. Q.8 Design the Component and Deployment diagrams for an Online Shopping System. How would you model a Hospital Management System using 	Q.1 Explain the various software process models with neat diagrams. Q.2 Differentiate between object-oriented modeling and structured modeling. Q.3 Define Rational Unified Process (RUP). Explain in detail various phases of Rational Unified Process (RUP). Q.4 Explain different types of UML diagrams used in advanced structural modeling with suitable examples Q.5 Draw a Sequence diagram and a Collaboration diagram for a student course registration system. Q.6 Write short notes on any TWO: a) Polymorphism b) Package Diagram c) Deployment Diagram SECTION-II Q.7 You have been asked to design the UML model of a Library Management System. Answer the following: a) Identify two types of users and three major functions of the system b) Draw a use case diagram including users and their interactions. c) Design a sequence diagram for the "Book Issue" process. d) Justify the need for state chart diagram in this context. Q.8 Design the Component and Deployment diagrams for an Online Shopping System. How would you model a Hospital Management System using (10)	Q.1 Explain the various software process models with neat diagrams. Q.2 Differentiate between object-oriented modeling and structured modeling. Q.3 Define Rational Unified Process (RUP). Explain in detail (08) C04 various phases of Rational Unified Process (RUP). Q.4 Explain different types of UML diagrams used in advanced structural modeling with suitable examples Q.5 Draw a Sequence diagram and a Collaboration diagram for a student course registration system. Q.6 Write short notes on any TWO: (08) a) Polymorphism b) Package Diagram c) Deployment Diagram SECTION-II Q.7 You have been asked to design the UML model of a Library Management System. Answer the following: a) Identify two types of users and three major functions of the system b) Draw a use case diagram including users and their interactions. c) Design a sequence diagram for the "Book Issue" process. d) Justify the need for state chart diagram in this context. Q.8 Design the Component and Deployment diagrams for an Online (10) C05 Shopping System. How would you model a Hospital Management System using (10)