Sophia Girls' College (Autonomous), Ajmer

Department of Computer Science

Course Plan

Ms. Kiran Bhagnani

SOPHIA GIRL'S COLLEGE, AJMER (*AUTONOMOUS*)
B.C.A II (SEMESTER IV) 2021-22
BCA – 402 Advance Database Management Systems

Max. Marks :75 (50Ext; 25 Int)   Min. Marks: 30(20 Ext;10 Int)   Credit: 03

COURSE PLAN

SEM IV Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
JANUARY	**UNIT I** Transaction Processing: ACID Properties, Transaction State, Concurrent Executions, Need of Serializability, Conflict vs. View Serializability, Testing for Serializability. Concurrency Control: Implementation of Concurrency: Lock-based protocols, Timestamp-based protocols, Deadlock handling. Database Failure and Recovery: Database Failures, Recovery Schemes: Shadow Paging and Log-based Recovery.	Importance of Database Properties and how multiple transactions can work together	PPT, Practice problems, E-content	Analyse the importance of Serializability Managing Deadlocks	_Knowledge Based_ What is query? Define interoperation in databases. BLOB and CLOB data types. _Understanding Based_ Explain the two	Knowledge--40 Understanding-40 Higher Order-20

FEBURARY	Query optimization & processing: Introduction, Algorithm for external sorting, select & join operation, project & set operations. **UNIT II** Parallel Databases : I/O Parallelism, Interquery Parallelism, Intraquery Parallelism.	Optimization in day to day life and how it is applied to various operations in DBMS Importance of executing operations in parallel	PPT, Quiz, E-content, Blended learning	Compare and Contrast between different types of databases. Optimize the operations	phase commit protocol of databases. Give a brief explanation of temporal databases	
MARCH	Distributed Databases: Replication and Fragmentation, Distributed Transactions, Commit protocol, Concurrency Control in Distributed Databases. **UNIT III** Introduction to PL/SQL and its advantages over SQL, PL/SQL block structure, variables and constants, attributes, character set, data types	How data can be processed from various sites in distributed databases. Problems that do exist in distributed architecture	PPT, Practical Implementation	Handle the distributed transactions	*Higher Order Thinking Skills Based* Compare between parallel and distributed databases. Write a PL/SQl code for trigger creation	
APRIL	Control structures, conditional control. Sequential control, Introduction to Cursor (Implicit & Explicit), Error handling in PL/SQL, creating function & procedure, package functions, package procedures, Oracle transactions	Importance of PL/SQL and data types available in PL/SQL in respect to SQL Different ways of handling error in PL/SQL	PPT, Practical Implementation	Handle the events occurring on database and explicit error handling		

2021-22

MAY	Database Triggers: Introduction, Use & type of database Triggers, Triggers Vs. Declarative Integrity Constraints, BEFORE Vs. AFTER Trigger Combinations, Creating a Trigger, Dropping a Trigger.	Importance and various combinations of triggers in databases	PPT, Practical Implementation			

Head
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COURSE_PLAN_2021-22_MRS_KIRAN_BHAGNANI

SOPHIA GIRL'S COLLEGE, AJMER (AUTONOMOUS)
V.C.A III (SEMESTER VI) 2021-22
VCA – 602 Multimedia Technology

Max. Marks :75 (50Ext; 25 Int)

Min. Marks: 30(20 Ext;10 Int)

Credit: 03

COURSE PLAN

SEM VI Month	UNIT/TOPIC	Concepts/facts	Teaching Pedagogy	Learning Outcomes	Questions	Marks Weightage (%)
JANURARY	**Unit – I** Introduction to Multimedia , Advantages and Disadvantages of Multimedia Introduction to Multimedia , media elements, Application areas of Multimedia, Advantages and Disadvantages of Multimedia, System components, user interface and its types, importance and Features of user interface	Effective Communication , its source and usage Integrating various media elements for a project.	PPT, E-content	Identify terminology associated with the concepts, techniques, and processes used throughout the multimedia environment	_Knowledge Based_ Define multimedia Computer Write short note on video _Understanding Based_ Explain how user interface is important for any multimedia interface.	Knowledge—40 Understanding-40 Higher Order-20

2021-22

					Give differences between bitmap and vector images.
FEBURARY	MM hardware & software requirements **Unit – II** Images: Raster and Vector image Compression: Lossy and Lossless Compression, advantages and disadvantages of compression, jpeg image compression	Utility of Compression and various standards, privacy aspects of project	PPT , Quiz	Understand the multimedia system	*Higher Order Thinking Skills Based* Write down the steps to create butterfly and apply guide layer.
MARCH	Various multimedia laws: Patent law, Trademark Law, Trade secret Law, Copyright Law **Introduction to Flash**: Uses of flash, hardware requirements of flash,	Utility of flash file, how to render simple components on stage.	PPT, Blended Learning	Study laws of multimedia and importance of compression technique	Can integration of different media elements can be accomplished in any computer? Justify
APRIL	Tool Box and its components (Line tool, Pen, Pencil, Paint Bucket Tool, Ink bottle tool, Eye Dropper), Color effects (solid, linear gradients & Radial gradients) Text tool. **UNIT III** Flash: 3D rotation, Eraser tool, concept of	Understanding various components of Flash	PPT, Practical Implementation	Understand key concepts of Flash designing tool	

2021-22

	frames, significance of frames, key frame, Drawing object in flash (line, curve, oval, Rectangle , Polystar tool)					
MAY	Layers and its types in flash. Insert and rename layers, Envelope Object based animation (frame by frame animation, motion tween, classic tween and shape tween, animating text), adding, sound	Utility of layers Comparative analysis of tweens	PPT, Practical Implementation	Design basic animation and gif images for publishing		

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