

Model Question Paper-1 with effect from 2021(CBCS Scheme)

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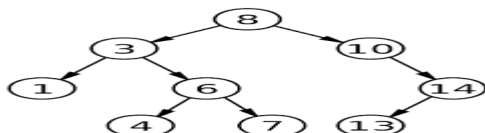
Sixth Semester B.E. Degree Examination Subject Title Introduction to Data Structures

TIME: 03 Hours

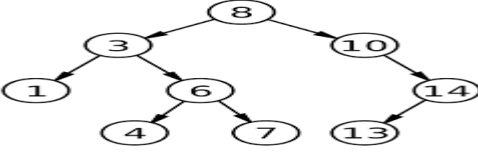
Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	COs	Marks
Q.1	a	Define an array. How to declare & initialize one dimensional & two-dimensional Array?	1	1	7M
	b	Write a C program to do multiplication of A & B matrix. Store the result in matrix C.	3	1	10M
	c	Define Pointer? Explain how the pointer variable declared and initialized with example	1	1	3M
OR					
Q.2	a	Explain nested structures with example. Give the difference between union and Structure.	1	1	7M
	b	Write a C program to read and display 3 student data using structures.	2	1	8M
	c	Write a program to swap the numbers using pointers.	2	1	5M
Module-2					
Q.3	a	Define stack. What are the operations of stack? Give stack representation in memory?	1	2	5M
	b	Deduce the contents of empty stack after the execution of the following operations in sequence: Push(6), Push(8), Push(-1),Pop(),Push(7),Pop(),Pop()	1	2	5M
	c	Write a C Program to implement Stack using arrays.	3	2	10M
OR					
Q.4	a	Define Queue? Explain the different types of Queues with logical representation.	1	2	10M
	b	Write a C function to insert, delete and display an element in a linear queue.	2	2	10M
Module-3					
Q.5	a	What is Linked List? Give C declaration of LL? Explain different types of LL with neat diagram?	1	2	10M
	b	Write a C program to perform the following operations on CircularLL i. Insert node at front ii. Delete node at rear	3	2	10M
OR					
Q.6	a	Define circular LL? Give logical representation of it. List out the Applications of LL	1	2	10M
	b	Write a C program to implement the Singly LL.	3	2	10M
Module-4					
Q.7	a	Draw the binary search tree for the following: 13, 3, 4, 12, 14, 10, 5, 1, 8, 2, 7, 9, 11, 6, 18	2	4	10M
	b	Give three tree traversals for the binary search tree.	2	4	10M



OR

Q.8	a	Give three tree traversals for the binary search tree. 	2	4	10M
	b	Write a C recursive tree traversal functions.	2	4	10M
Module-5					
Q.9	a	Write C function for implementing selection sort?	3	3	10M
	b	Tracing of elements using bubble sort. 15,25,20,10,30,50,45,40	2	3	10M
OR					
Q.10	a	Write a Linear search program to find an element.	3	3	10M
	b	Discuss the difference between binary search and linear search.	2	3	10M

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.

Model Question Paper-1/2 with effect from 2021(CBCS Scheme)

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Sixth Semester B.E. Degree Examination Subject Title REMOTE SENSING AND GIS

TIME: 03 Hours

Max. Marks: 100

- Note: 01. 02. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.
03.
04.

Module -1			*Bloom's Taxonomy Level	COs	Marks
Q.01	a	With a neat sketch. Illustrate the electromagnetic spectrum and its characteristics.	L1	1	8
	b	Briefly explain how energy interacts between Electromagnetic energy with earth atmosphere.	L1	1	8
	c	Describe the basic principles of remote sensing with neat sketch.	L1	1	4
OR					
Q.02	a	Briefly explain how energy interacts between Electromagnetic energy with earth surface.	L1	1	8
	b	Explain spectral signature of earth surface with diagram.	L1	1	8
	c	Define remote Sensing. Illustrate the applications and limitations of it.	L1	1	4
Module-2					
Q. 03	L1	Explain Aerial photograph with their advantages and disadvantages.	L2	2	8
	L1	Define photogrammetry? Explain scale of vertical photograph for flat terrain	L2	2	8
	c	Explain ground coordinate system?	L2	2	4
OR					
Q.04	a	Derive expression for relief displacement for tilted photograph	L2	2	8
	b	Explain digital photogrammetry and write advantages and disadvantages.	L1	2	8
	c	With neat diagram explain flight planning in aerial photogrammetry.	L1	2	4
Module-3					
Q. 05	a	What is GIS and with neat sketch explain its components used in GIS?	L2	2	8
	b	Describe briefly about geographical reference data in GIS.	L1	2	8
	c	Explain advantages and limitations of GIS.	L1	2	4
OR					
Q. 06	a	Explain Raster data model and Vector data model	L2	2	8
	b	With neat diagram describe Coordinate system with examples.	L2	2	8
	c	What is GPS? Explain its components and working principles.	L2	2	4
Module-4					
Q. 07	a	Explain the role of GIS in Water Resource management	L1	3	8

	b	Explain how GPS play vital role in environmental engineering.	L1	3	8
		Illustrate the traffic management system in remote sensing technology.	L1	3	4
OR					
Q. 08	a	Explain the role of GIS in hydrology.	L1	3	8
	b	Explain how GPS play vital role in environmental engineering.	L1	3	8
	c	Illustrate the traffic management system in remote sensing technology.	L1	3	4
Module-5					
Q. 09	a	Explain role of GIS and Remote Sensing in disaster management.	L1	4	8
	b	What is the importance of location based applications in modern generation and explain the role of GIS in it.	L1	4	8
	c	Explain the role of GIS and GPS in urban planning and development.	L1	4	4
OR					
Q. 10	a	Describe briefly about town planning applications in GIS.	L1	4	8
	b	Explain role of GIS and Remote Sensing in change detection survey.	L1	4	8
	c	Explain the role of GIS and GPS in agricultural field and also state the applications of it.	L1	4	4

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.