

SGK GOVERNMENT DEGREE COLLEGE
VINUKONDA, PALNADU DISTRICT



Report on Remedial Coaching

for the Course Data Structures

Academic Year 2021-22

CONDUCTED BY

DEPARTMENT OF COMPUTER SCIENCE

The program focused on aiding slow learners in "Data Structures in C," customizing the coaching to address the requirements of those who scored below 15 internal marks. Among the 35 students participating, six were identified as slow learners. Following the coaching sessions, six out of the six showed notable progress, obtaining a cumulative score surpassing 40 marks.

The following is the Classification of students into Slow Learners, Medium Learners and Advanced Learners.

Regd.no	Name of the Student	Internal Marks	External Marks	Total	Learner Classification
Y213099048	BAILADUGU TARAKA ARJUN	16	36	52	Medium Learner
Y213099049	BANKA GURAVAMMA	23	44	67	Advanced Learner
Y213099050	CHANGALA SAI VENKATA GANESH	16	31	47	Medium Learner
Y213099051	DASARI RATNA KUMARI	13	31	44	Slow Learner
Y213099052	GOPU VENKATESH	15	42	57	Medium Learner
Y213099053	JEEDIMALLA BHANU PRASAD	21	43	64	Advanced Learner
Y213099054	KAKANI BRAHMA NAIDU	13	A	#VALUE!	Slow Learner
Y213099055	KANCHARLA GAYATHRI	22	30	52	Advanced Learner
Y213099056	KISTAM CHANDRA SEKHAR	16	30	46	Medium Learner
Y213099057	KOTA VENKATA LAKSHMI PADMAVATHI	14	A	#VALUE!	Slow Learner
Y213099058	MALAPATI KRUPARAJU	17	35	52	Medium Learner
Y213099059	MANNEPALLI VENKATESH	17	45	62	Medium Learner
Y213099060	MUTUKURI KIRAN KUMAR	17	45	62	Medium Learner
Y213099061	NAMBURI PRADEEP	0	AB	#VALUE!	Slow Learner
Y213099062	ORSU GOPI	18	30	48	Medium Learner
Y213099063	PADARA VENKAT	12	30	42	Slow Learner

Y213099 064	PALADUGU MAHESWARI	25	61	86	Advanced Learner
Y213099 065	PALLEPOGU RAKESH	17	37	54	Medium Learner
Y213099 066	PASUMARTHI RAHIMUNNISA	25	36	61	Advanced Learner
Y213099 067	PEDDEETI DURGA PRASAD	19	32	51	Medium Learner
Y213099 068	SETTI NAGALAKSHMAIAH	20	30	50	Advanced Learner
Y213099 069	SHAIK RAAFIYA	24	46	70	Advanced Learner
Y213099 070	SHAIK ZAKIRA ROSHAN	24	54	78	Advanced Learner
Y213099 071	SHIAK IMRAN BASHA	17	37	54	Medium Learner
Y213099 072	VELPULA AKSHAYA BABU	18	30	48	Medium Learner
Y213099 073	YADLAPALLI VASU	21	58	79	Advanced Learner
Y213099 074	YESUPOGU MOUNIKA	0	AB	A	Slow Learner
Y213099 078	IRIGI DEVAKUMARI	14	AB	A	Slow Learner
Y213099 079	KAMBHAMPATI VEERA BRAHMA CHARI	17	30	47	Medium Learner
Y213099 080	KOTWAL VAHEEDAREHAMAN	14	30	44	Slow Learner
Y213099 082	SHAIK JANBEE	13	40	53	Slow Learner
Y213099 083	SOMAVARAPU YESHAYA	25	51	76	Advanced Learner
Y213099 084	SRIKAKULAM NAGENDRACHARI	23	51	74	Advanced Learner
Y213099 085	VALLEM VENKATESWARLU	21	30	51	Advanced Learner

List of topics taught during remedial coaching:

S.No	Name of the Topic	Brief Synopsis of the Topic
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1	Introduction to Data Structures	Data Structures form the foundation of efficient algorithms and programming. This topic covers the fundamental concepts, importance, and types of data structures like arrays, linked lists, stacks, queues, trees, and graphs. Understanding these structures is crucial for solving real-world problems efficiently.
2	Arrays	Arrays are collections of elements, each identified by an index or a key. This topic delves into the properties, usage, and manipulation of arrays. They play a vital role in storing and organizing data, making them one of the essential building blocks in data structure concepts.
3	Linked Lists	Linked Lists are linear data structures comprising nodes, where each node stores data and a reference to the next node. This topic covers types of linked lists (singly, doubly, circular) and their applications, illustrating how they can be dynamically managed and provide flexibility in memory allocation.
4	Stacks and Queues	Stacks and Queues are abstract data types that operate on the principle of Last-In-First-Out (LIFO) and First-In-First-Out (FIFO), respectively. Understanding their characteristics, operations, and practical applications is vital for solving various computational problems efficiently.

5	Trees and Binary Trees	Trees are hierarchical data structures with a root element and subtrees. Binary Trees, a specific type, consist of nodes with at most two children. This topic explores tree concepts, types (binary, AVL, red-black), traversal algorithms, and their applications in data storage, search, and more.
6	Graphs	Graphs are a collection of nodes (vertices) and edges. This topic covers different types of graphs (directed, undirected, weighted, cyclic, acyclic) and their representations, traversal, and various algorithms like Dijkstra's and Prim's, crucial for solving problems in various domains like network routing, social networks, and more.
7	Hashing and Hash Tables	Hashing is a technique used to map data of arbitrary size to fixed-size values. Hash Tables use this technique to store and retrieve data quickly. This topic covers hashing functions, collision handling, and the efficient use of hash tables, essential for applications like databases, caches, and more.

8	Sorting and Searching Algorithms	Sorting and searching are fundamental operations in data manipulation. This topic presents various sorting algorithms (e.g., quick sort, merge sort) and searching algorithms (e.g., binary search), highlighting their efficiency, usage, and scenarios where they excel. Understanding these algorithms is key to optimizing program performance.
9	Advanced Data Structures and Algorithms	This topic delves into advanced data structures like AVL trees, B-trees, heaps, and advanced algorithms like dynamic programming and greedy algorithms. Understanding these complex structures and algorithms is crucial for handling large datasets and solving complex computational problems effectively.
10	Applications of Data Structures and ALgos	This topic explores practical applications of data structures and algorithms in real-world scenarios. From optimizing performance in software development to solving complex computational problems, understanding how to apply data structures and algorithms is essential for aspiring programmers and software engineers.

Beneficiary Status of Slow Learners:

Regd.no	Name of the Student	Internal Marks	External Marks	Total	Learner Classification	Outcome of Remedial Coacing
Y213099051	DASARI RATNA KUMARI	13	31	44	Slow Learner	Benefitted
Y213099063	PADARA VENKAT	12	30	42	Slow Learner	Benefitted
Y213099074	YESUPOGU MOUNIKA	0	AB	A	Slow Learner	Benefitted
Y213099078	IRIGI DEVAKUMARI	14	AB	A	Slow Learner	Benefitted
Y213099080	KOTWAL VAHEEDAREHAMAN	14	30	44	Slow Learner	Benefitted
Y213099082	SHAIK JANBEE	13	40	53	Slow Learner	Benefitted