# Rajalakshmi Engineering College

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Branch: REC

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Batch: 2028

Degree: B.E - CSE



## NeoColab\_REC\_CS23231\_DATA STRUCTURES

REC\_DS using C\_Week 7\_MCQ\_Updated

Attempt : 1 Total Mark : 20

Marks Obtained: 16

Section 1: MCQ

1. What is the initial position for a key k in a linear probing hash table?

Answer

(k + 1) % table\_size

Status: Wrong Marks: 0/1

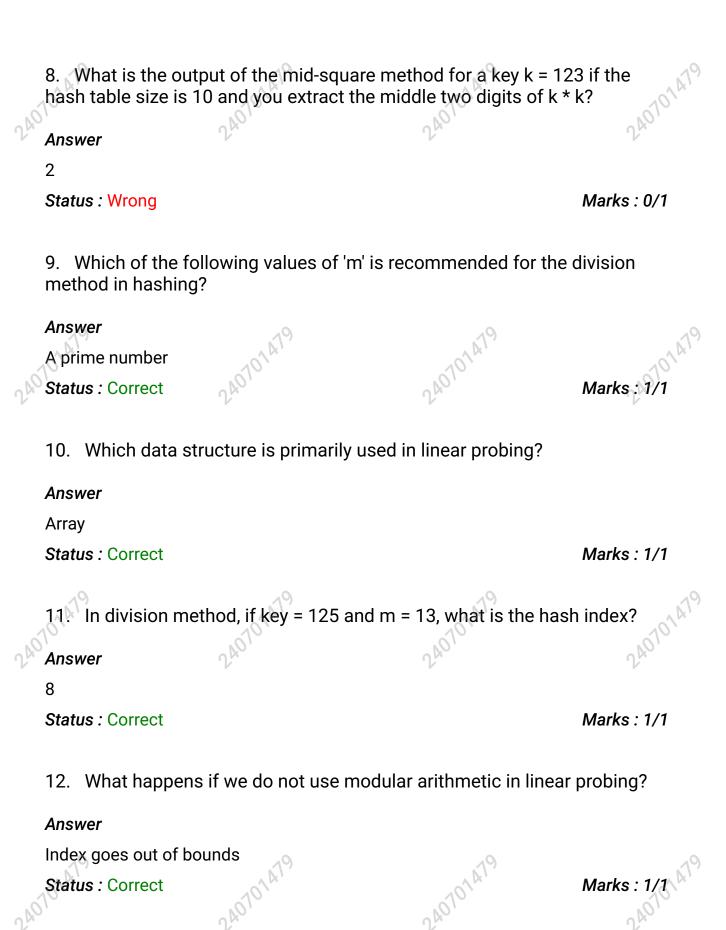
2. Which of the following statements is TRUE regarding the folding method?

Answer

It divides the key into parts and adds them.

Status: Correct Marks: 1/1

240	3. Which of these hashing distribution with small keys  Answer  Mid-Square	18	sult in more uniform	240707479
	Status: Correct			Marks : 1/1
	4. What does a deleted slo	ot in linear probing	y typically contain?	
	Answer			
240	NULL Status: Wrong	W10)	240701479	Marks: 0/1
	5. In linear probing, if a collision occurs at index i, what is the next index checked?			
	Answer			
	(i + 1) % table_size			
	Status: Correct			Marks : 1/1
240	6. What is the primary dis  Answer	advantage of linea	ar probing?	240101419
	Clustering			
	Status: Correct			Marks : 1/1
	7. What is the worst-case time complexity for inserting an element in a hash table with linear probing?			
'nÓ	Answer O(n) Status: Correct	(1/9)	240707479	Marks : 1/1
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13. What would be the result of folding 123456 into three parts and summing: (12 + 34 + 56)?

Answer

102

Status: Correct Marks: 1/1

14. Which folding method divides the key into equal parts, reverses some of them, and then adds all parts?

**Answer** 

Folding reversal method

Status: Correct Marks: 1/1

15. In the division method of hashing, the hash function is typically written as:

Answer

h(k) = k % m

Status: Correct Marks: 1/1

16. Which situation causes clustering in linear probing?

**Answer** 

All the mentioned options

Status: Correct Marks: 1/1

17. Which C statement is correct for finding the next index in linear probing?

Answer

index = (index + 1) % size;

Status: Correct

Marks: 1/1

18. In C, how do you calculate the mid-square hash index for a key k,

assuming we extract two middle digits and the table size is 100?

#### Answer

((k \* k) / 10) % 100

Status: Wrong Marks: 0/1

19. Which of the following best describes linear probing in hashing?

### Answer

Resolving collisions by linearly searching for the next free slot

Marks: 1/1 Status: Correct

20. In the folding method, what is the primary reason for reversing alternate parts before addition?

#### Answer

To reduce the chance of collisions caused by similar digit patterns

Status: Correct