Rajalakshmi Engineering College

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Batch: 2028

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NeoColab_REC_CS23231_DATA STRUCTURES

REC_DS using C_Week 7_MCQ_Updated

Attempt : 1 Total Mark : 20

Marks Obtained: 17

Section 1: MCQ

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

Answer

k % table_size

Status: Correct Marks: 1/1

2. What is the output of the mid-square method for a key k = 123 if the hash table size is 10 and you extract the middle two digits of k * k?

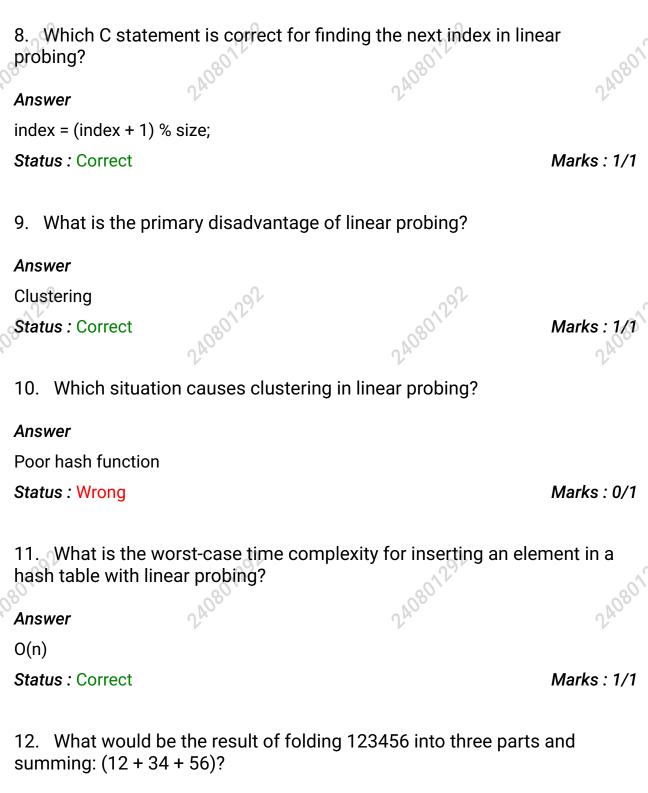
Answer

1

Status: Correct

Marks : 1/1

245	3. What does a deleted slot in linear probing typically contain? **Answer** A special "deleted" marker **Status: Correct**	240801292 Marks: 1/1
	4. In the division method of hashing, the hash function is typica as:	lly written
249	Answer h(k) = k % m Status: Correct 5. In division method, if key = 125 and m = 13, what is the hash	Marks: 1/1 index?
	Answer 8 Status: Correct	Marks : 1/1
245	6. What happens if we do not use modular arithmetic in linear particle. Answer Index goes out of bounds Status: Correct	Marks: 1/1
	7. Which data structure is primarily used in linear probing?	
	Answer Array	
240	Status: Correct	Marks: 1/1



Answer

102

Status: Correct Marks: 17

13. Which of these hashing methods may result in more uniform distribution with small keys?

Answer

Mid-Square

Status: Correct Marks: 1/1

14. 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) % 100

Status: Wrong Marks: 0/1

15. 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

16. 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

17. 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 Marks : 1/1

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

Answer

Folding reversal method

Marks: 1/1 Status: Correct

19. Which of the following values of 'm' is recommended for the division method in hashing?

Answer

A prime number

Status: Correct Marks: 1/1

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

Answer

Rehashing the entire table when a collision occurs

Status: Wrong Marks: 0/