Rajalakshmi Engineering College

Name: Navaneetha Krishnan

Email: 241901067@rajalakshmi.edu.in

Roll no: 241901067 Phone: 8939010233

Branch: REC

Department: I CSE (CS) FB

Batch: 2028

Degree: B.E - CSE (CS)



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

Answer

It divides the key into parts and adds them.

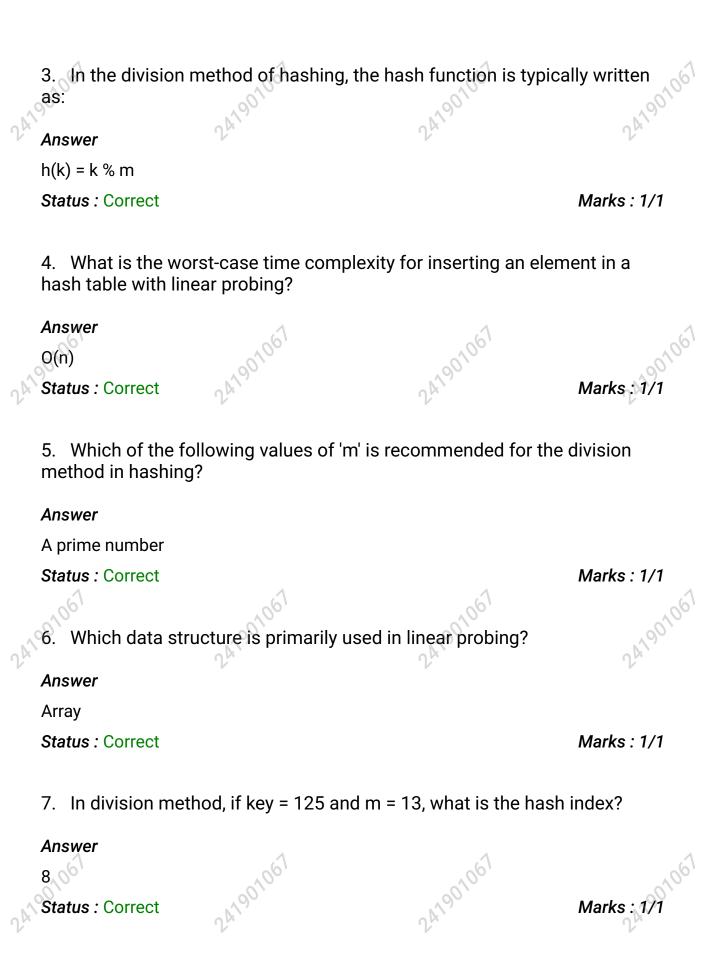
Status: Correct Marks: 1/1

2. 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



8. 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

2

Marks: 0/1 Status: Wrong

9. What does a deleted slot in linear probing typically contain?

Answer

Marks: 0/1 Status: Wrong

10. 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

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

Answer

index = (index + 1) % size;

Marks: 1/1 Status: Correct

12. What happens if we do not use modular arithmetic in linear probing?

Answer

Index goes out of bounds

Status: Correct Status : Correct Marks: 1

13. What is the initial position for a key k in a linear probing hash table? Answer k % table_size Status: Correct Marks: 1/1 14. 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 Marks : 1/1 Status: Correct 15. What is the primary disadvantage of linear probing? Answer Clustering Status: Correct Marks: 1/1 16. Which of these hashing methods may result in more uniform distribution with small keys? **Answer** Mid-Square Status: Correct Marks: 1/1 17. Which situation causes clustering in linear probing? Answer Sequential key insertion Marks : 0/1 Status: Wrong

18. What would be the result of folding 123456 into three parts and summing: (12 + 34 + 56)?

Answer

102

Status: Correct Marks: 1/1

19. 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

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

Answer

Resolving collisions by linearly searching for the next free slot

Status: Correct Marks: 1/1

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