CS101 updated VU Final term Past Paper Last 5 Year
Created by: VU APEX Campus Teachers Team

Module 147 147. Data Abstraction: List, Stacks and Queues

1. What is the basic characteristic of a stack? a) Entries can be inserted and removed at any position. b) Entries can only be inserted at the head. c) Entries can only be removed from the tail. d) Entries can be inserted at the head and removed from the tail. **Correct Answer: b) Entries can only be inserted at the head.**

2. In a stack, what is the term for inserting a new entry? a) Placing b) Adding c) Pushing d) Popping **Correct Answer: c) Pushing**

3. What is the term for removing an entry from the top of a stack? a) Pulling b) Extracting c) Popping d) Pushing **Correct Answer: c) Popping**

4. Why is a stack referred to as a last-in, first-out (LIFO) structure? a) The last entry placed on a stack is always the last one removed. b) The last entry placed on a stack is always the first one removed. c) Entries are removed randomly from the stack. d) Entries are removed in the order they were inserted. **Correct Answer: b) The last entry placed on a stack is always the first one removed.**

5. What is the opposite end of the head in a stack? a) Top b) Bottom c) Tail d) Base **Correct Answer: c) Tail**

6. Which data structure is often used as the basis for backtracking activities? a) Queue b) List c) Stack d) Array **Correct Answer: c) Stack**

7. How is the beginning of a list referred to? a) Start b) Top c) Head d) Base **Correct Answer: c) Head**

8. What is the main characteristic of a queue? a) Entries can be inserted and removed at any position. b) Entries can only be inserted at the head. c) Entries can only be removed from the tail. d) Entries can be inserted at the head and removed from the tail. **Correct Answer: d) Entries can be inserted at the head and removed from the tail.**

9. In a queue, what is the term for inserting a new entry? a) Enqueuing b) Pushing c) Popping d) Dequeuing **Correct Answer: a) Enqueuing**

10. What is the term for removing an entry from the front of a queue? a) Popping b) Dequeuing c) Extracting d) Pushing **Correct Answer: b) Dequeuing**

11. What is the opposite end of the head in a queue? a) Top b) Bottom c) Tail d) Base **Correct Answer: c) Tail**

12. Why is a queue referred to as a first-in, first-out (FIFO) structure? a) The first entry placed in a queue is always the last one removed. b) The first entry placed in a queue is always the first one removed. c) Entries are removed randomly from the queue. d) Entries are removed in the order they were inserted. **Correct Answer: b) The first entry placed in a queue is always the first one removed.**

13. What is the basic characteristic of a list? a) Entries can be inserted and removed at any position. b) Entries can only be inserted at the head. c) Entries can only be removed from the tail. d) Entries can be inserted at the head and removed from the tail. **Correct Answer: a) Entries can be inserted and removed at any position.**

14. In a list, what is the beginning called? a) Start b) Top c) Head d) Base **Correct Answer: c) Head**

15. How are entries usually accessed in an aggregate type? a) Numerical index b) Field name c) Head d) Tail **Correct Answer: b) Field name**

16. What is the purpose of a software license agreement? a) To transfer ownership rights to the intellectual property b) To grant the user certain permissions without transferring ownership rights c) To prevent another party from independently developing a similar product d) To disclose the details of the invention for patent filing **Correct Answer: b) To grant the user certain permissions without transferring ownership rights**

17. What is the purpose of a copyright notice in software development? a) To prevent unauthorized use of software b) To assert ownership rights over the product c) To disclose the details of the invention for patent filing d) To restrict access to certain features of the software **Correct Answer: b) To assert ownership rights over the product**

18. What is a drawback to using patents in software development? a) Patents are easy and quick to obtain. b) The process to obtain a patent is expensive and time-consuming. c) Patents grant perpetual ownership rights. d) Patents only cover physical inventions, not software. **Correct Answer: b) The process to obtain a patent is expensive and time-consuming.**

19. According to George A. Miller's research, how many details can the human mind deal with simultaneously? a) 5 b) 7 c) 10 d) 15 **Correct Answer: b) 7**

20. What is the GOMS model used for in the field of human-machine interface design? a) To analyze tasks in terms of user goals, operators, methods, and selection rules. b) To measure the physical abilities of humans. c) To design ergonomic systems. d) To study the history of human interaction with machines. **Correct Answer: a) To analyze tasks in terms of user goals, operators, methods, and selection rules.**