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| **P.V.P Siddhartha Institute of Technology(Autonomous)** | **Signature of Invigilator with date:** | **Marks Obtained:** |
| **Department of Computer Science and Engineering** |
| **Course: B. Tech** | **Year: III** | **Semester: II** | **Objective: II** |
| **Regulation: PVP20** | **Maximum Marks:10M** | **Session: F. N** |
| **A.Y:2024-25** | **Date:24-03-2025** | **Duration: 20 min** |
| **Subject Name: Compiler Design** |
| **Registered Number:** | **Name:** |
| **Answer all the Questions. Each Question carries ½ Mark 20×½ M =10M** |
| **S. No** | **Question** | **CO** | **Level** | **Answer** |
| 1. | Which of the following graph shows basic blocks along with their successor relationship? | **CO1** | **L2** |  |
| a) Direct Acyclic graph  | b) Control graph  | c) Flow graph | d) Hamiltonian graph  |
| 2. | A\_\_\_\_\_ is a production with dot at somewhere in the body | **CO1** | **L2** |  |
| a) token | b) item |
| c) viable | d) invalid item |
| 3. | Identify the most powerful parser? | **CO1** | **L2** |  |
| a) LALR | b) SLR |
| c) CLR  | d) Operator Precedence |
| 4. | What does CLR stand for? | **CO1** | **L2** |  |
| a) Construct LR | b) Canonical LR |
| c) Complete LR | d) Closed LR |
|  5. | Fragmentation can be reduced by using \_\_\_\_ Algorithm | **CO1** | **L2** |  |
| a) Worst fit | b) Best fit | c) Large fit | d) None |
|  6. | The value of which variable is updated inside the loop by a loop-invariant value? | **CO1** | **L2** |  |
| a) Loop | b) Strength | c) Induction | d) Invariable |
| 7. | Indirect triples consist of a \_\_\_\_\_. | **CO1** | **L2** |  |
| a) listing of pointers to triples | b) listing of triples themselves. | c) listing of temporary | d) listing of variables |
| 8. | DAG is an abbreviation of\_\_\_\_\_\_\_\_ | **CO1** | **L2** |  |
| a)Detecting Acyclic Graph | b)Data Acyclic Graph |
| c)Dynamic Acyclic Graph | d)Directed Acyclic Graph |
| 9. | Which of the following intermediate code form has three fields? | **CO1** | **L2** |  |
| a) Parse tree | b)Triples | c) Indirect Triples | d) Quadruples |
| 10. | In which of the following tree, the leaf indicates the operand, and the interior node represents the operator. | **CO1** | **L2** |  |
| a) Syntax tree | b) Heap tree | c) Structured tree | d) Semantic Tree |
| 11. | X2 can be replaced by which of the following operation to hold strength reduction property | **CO1** | **L2** |  |
| a) X+X | b) X\*X | c) X/X | d) X+2 |
| 12. | Which of the following function is called the canonical collection of LR(0) item. | **CO1** | **L2** |  |
| a) FIRST | b) GOTO | c) COMPUTE | d) FOLLOW |
| 13. | Peephole optimization is ……. | **CO1** | **L2** |  |
| a) Machine independent optimization | b) Local Optimization | c) Machine dependent optimization | d)None |
| 14. | The full form of YACC is | **CO1** | **L2** |  |
| a) Yet Another Computer Computer | b)Yet Another Computer Compiler |
| c)Yet Another Compiler Computer | d) Yet Another Compiler Compiler |
| 15. | DAG representation of a basic block allows |  **CO1** | **L2** |  |
| a) Automatic detection of local common sub expressions | b) Automatic detection of induction variables | c)Automatic detection of loop variant | d)None |
| 16. | An intermediate code form is | **CO1** | **L2** |  |
| a)Postfix notation | b)Syntax trees | c)Three address code | d) All |
| 17. | A variable “x” is said to be \_\_\_\_if there is a positive or negative constant“c” such that each time “x” is assigned, its value increases by c. | **CO1** | **L2** |  |
| a) a dead variable | b) a live variable | c) an induction variable | d) a reduction variable |
| 18. | Heap is an area in memory for storing data created at\_\_\_\_\_ | **CO1** | **L2** |  |
| a) Compile time | b) Run time |
| c) Static time  | d) None |
| 19. | Substitution of values for names whose values are constant, is done in | **CO1** | **L2** |  |
| a) Local optimization | b) Loop optimization |
| c) Constant folding | d) None |
| 20. | Peephole optimization can be performed on \_\_\_\_. | **CO1** | **L2** |  |
| a) machine code  | b) intermediate code  | c) syntax tree | d) tokens  |