In the Name of Allāh, the Most Gracious, the Most Merciful

## MidTerm Papers  Solved MCQS  with Reference (1 to 22 lectures)

1. Typical compilation means programs written in high-level languages to low-level _____.

   o **Object code**                    **PG # 06**
   o Byted code
   o Unicode
   o Object Code and byte code

2. In compilation process, Hierarchical analysis is also called _____.

   o Parsing

   o **Syntax**            **Click Here For More Detail**

   o Parsing and Syntax analysis

   o None of given

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3. IR (Intermediate Representation) stores the value of its operand in _____.

- o **Registers**                    **PG # 10   Click Here For More Detail**

- o Memory

- o Hard disk

- o None Of given

4. A lexeme is a sequence of characters in the source program that is matched by the pattern for a _____.

- o Linker

- o **Token**                       **Click Here for More Detail**

- o Control flow

- o None of given

5. Parsers take _____ as Input from lexical analyzer.

- o Linker

- o **Token**

- o Instructions

- o None of the given

6. What kind of abstract machine can recognize strings in a regular set?

- o **DFA**

- o NFA

- o PDA

- o None of the given

7. In multi pass compiler, during the first pass it gathers information about _____.

- o **Declaration**

- o Bindings

- o Static information

- o None of the given

8. In DFA minimization, we construct one _____ for each group of states from the initial DFA.

- o **State**               **PG # 30**

- o NFA

- o PDA

- o None of given

9. _____(Lexical Analyzer generator), is written in Java

- o Flex

- o **Jlex**              **Click here for More Detail**    **PG # 31**

- o Complex

- o None of given

    JLex is a **lexical analyzer generator**, **written** for **Java**, in **Java**.

10. In Flex specification file, different sections are separated by _____.

- o **%%**                          **Click Here For More Detail**    **PG # 31**

- o &&

- o ##

- o None of given

11. Recursive _____ parsing is done for LL(I) grammar.

o **Decent**                    **Click Here For More Detail**

o Ascent

o Forward

o None of the given

12. Alternative of the backtrack in parser is Look ahead symbol in _____.

o **Input**

o Output

o Input and Output

o None of the given

13. Parser takes tokens from scanner and tries to generate _____.

o Binary Search tree

o **Parse tree**

o Binary Search tree and Parse tree

o None of the given

14. In predictive parsing table, the rows represents _____.

o Terminals

o Both non-terminal and terminals

o **Non-terminals**            **PG # 62**

o None of the given

15. In LL(I) parsing algorithm,_____ contains a sequence of grammar symbols.

- o **Stack**                   **PG # 62**

- o Link List

- o Array

- o None of the given

16. Consider the grammar

A→ B C D

B→ h B | £

C→ C g | g | C h | i

D→ AB | £

First of A is _____.

- o **h, g, i**
- o g
- o h
- o None of the given

17. Consider the grammar

A→ B C D

B→ h B | £

C→ C g | g | C h | i

D→ AB | £

First of C is _____.

- o **g, i**
- o g
- o h, i
- o None of the given

18. Bottom-up parsing uses only _____ kinds of actions.

- o **Two**                        **PG # 71**

- o Three

- o Four

- o Five

Bottom-up parsing uses only two kinds of actions: 1. Shift, 2. Reduce

**Shift:**  Move | one place to the right
■ Shifts a terminal to the left string

**Reduce :** Apply an inverse production at the right end of the left string

19. The shift action _____ a terminal on the stack.

- o **Pushes**                **PG # 73**

- o Pops

- o Both push and pops

- o None of the given

20. Reduce _____ action zero or more symbols from the stack

- o Pushes

- o **Pops**                **PG # 73**

- o Both push and pops

- o None of the given

21. In compilers, linear analysis is also called _____.

- o Lexical analysis

- o Scanning

- o **Lexical analysis and scanning**            **Click Here For More Detail**

- o None of the given

22. Back End of two-pass compiler uses _____ algorithm.

- o O(n)
- o O(n log n)
- o **NP Complete**
- o None of the Given

23. The Back End of a compiler consist of _____.

- o **Instruction selection**          **Click Here For More Detail**

- o Register allocation

- o Instruction scheduling

- o All of the given

24. In Back End module of compiler, optimal register allocation uses _____.

- o O(log n)

- o O(n log n)

- o **NP-Complete**

- o None of the given

25._____is a regular expression for the set of all strings over the alphabet {a} that has an even number of a' s.

- o **(aa)***

- o (aa)*a

- o aa*a

- o a*(aa)

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26. _____algorithm is used in DFA minimization.

o  James's

o  Robert's

o  **Hopcroft's**                 **PG # 25**

o  None of given

27. _____ is an important component of semantic analysis.

o  Code checking

o  **Type checking**              **PG # 39**

o  Flush checking

o  None of the given

28. Consider the grammar

                A→ B C D

                B→ h B | £

                C→ C g | g | C h | i

  First of B is_____.

o  h, i
o  **h, £**
o  g
o  None of the given

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29. Consider the grammar

$$A \rightarrow B\ C\ D$$

$$B \rightarrow h\ B\ |\ £$$

$$C \rightarrow C\ g\ |\ g\ |\ C\ h\ |\ i$$

$$D \rightarrow A\ B\ |\ £$$

First of D is_____.

- o   h, g
- o   h
- o   **h, g , i, £**
- o   None of the given

30. _____ Parsers never shifts into an error state.

- o   LS
- o   LT
- o   **LR**
- o   LP

31. In_____ , certain checks are performed to ensure that components of a program fit together meaningfully

- o   Linear analysis
- o   Hierarchical analysis
- o   **Semantic analysis**          **Click Here For More Detail**
- o   None of  given

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32. _____ read the input character and produce sequence of tokens as output.

- **Lexical analyzer**          **Click Here For More Detail**
- Parser
- Symbol table
- None of the given

33. The regular expression _____denotes, the set of all strings of a's and b's of length two.

- a*
- (a* | b*)*
- (a*b*)*
- **(a|b)(a|b)**

> The regular expression $(a|b)(a|b)$ denotes $\{aa, ab, ba, bb\}$, the set of all strings of $a$'s and $b$'s of length two. Another regular expression for this same set is $aa | ab | ba | bb$.

34. _____ of a two-pass compiler is consists of Instruction selection, Register allocation and Instruction scheduling.

- **Backend**          **PG # 9**
- Frontend
- Start
- None of the Given

35. _____ is evaluated to yield a value.

- Command
- **Expression**          **Click Here For More Detail**
- Declaration
- None of the given

36. Bottom-up parsers handle a _____ class of grammar.

- **Large**                          **Click Here for More Detail**  **PG # 49**

- Small

- Medium

- None of the given

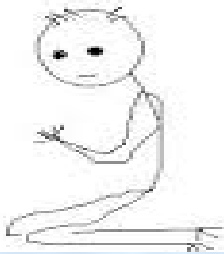ایماندار کو غصہ دیر سے آتا ہے اور جلدی دور ہو جاتا ہے

Best of Luck For Exam

Winning is not everything, but wanting to win is everything..... Go Ahead..... Best Of Luck !

please pray for me and I will pray for you too

**THE END**

Campus (AKMPO1)

ARSLAN ARSHAD
Arslan.arshad01@gmail.com