

Mathatma Gandhi University
BSc Computer Science IIIrd semester
BCS 302 SYSTEM SOFTWARE
MULTIPLE CHOICE QUESTIONS

- 1) Compiler is a program that
- a) places programs into memory and prepares them for execution
 - b) automates the translation of assembly language into machine language
 - c) accepts a program written in a high level language and produces an object program
 - d) appears to execute a source program as if it were machine language.

Ans)c

2. Loader is a program that
- a) places programs into memory and prepares them for execution.
 - b) automates the translation of assembly language into machine language.
 - c) accepts a program written in a high level language and produces an object program.
 - d) appears to execute a source program as if it were machine language

ans)a

- 3.) The action of parsing the source program into the proper syntactic classes is called

- a) syntax analysis
- b) lexical analysis
- c) interpretation analysis
- d) general syntax analysis

ans)b

- 4) In analyzing the compilation of PL/I program ,the term “lexical analysis” is associated with

- a) recognition of basic syntactic constructs through reductions
- b) recognition of basic elements and creation of uniform symbols
- c) creation of more optimal matrix
- d) use of macro processor to produce more optimal assembly code

ans)b

- 5) In analyzing the compilation of PL/I program,the description creation of more optimal matrix is associated with

- a) assembly and output
- b) code generation
- c) syntax analysis
- d) machine independent optimization

ans)d

- 6) Task of the lexical analysis phase is

a) to parse the source program into basic elements or tokens of the language
b) to build a literal table and an identifier table
c) to build a uniform symbol table
d) all of these
ans) d

7) which is a permanent database in the general model of compiler
a) Literal table
b) Identifier table
c) Terminal table
d) source code
ans) c

8) which table is a permanent data base that has an entry for each terminal symbol
a) Terminal table
b) Literal table
c) Identifier table
d) Reductions
ans) a

9) The output of lexical analyser is
a) a set of regular expressions
b) syntax tree
c) set of tokens
d) strings of characters
ans) c

10) which of the following system software resides in main memory
a) text editor
b) assembler
c) linker
d) all of these
ans) d

11) machine independent phase of the compiler is
a) syntax analysis
b) lexical analysis
c) intermediate code generation
d) all of these
ans) d

12) which of the following statement is true
a) SLR parser is more powerful than LALR
b) LALR parser is more powerful than canonical LR parser

- c) canonical LR parser is more powerful than LALR parser
 - d) parser SLR, canonical LR and LALR have the same power
- ans)d

- 13) .which of the following is used for grouping of characteristics into tokens
- a) parser
 - b) code optimization
 - c) code generator
 - d) lexical analyser
- ans)d

- 14) A bottom up parser generates
- a) Right most derivations
 - b) Right most derivations in reverse
 - c) Leftmost derivations
 - d) Leftmost derivations in reverse
- ans)b

- 15) .A top down parser generates
- a) Right most derivations
 - b) Right most derivations in reverse
 - c) Leftmost derivations
 - d) Leftmost derivations in reverse
- ans)c

- 16) .which of the following grammar is LR(1)
- a) $A \rightarrow aAa$
 $A \rightarrow bAb$
 $A \rightarrow a$
 $A \rightarrow b$
 - b) $A \rightarrow aAa$
 $A \rightarrow aAb$
 $A \rightarrow c$
 - c) $A \rightarrow A+A$
 $A \rightarrow a$
 - d) both a and b
- ans)b

- 17) which of the following parser is the most powerful
- a) Operator precedence
 - b) Canonical LR
 - c) LALR
 - d) SLR
- ans)b

- 18) Minimum hamming distance method is used for connection of

- a)syntactic errors
 - b)semantic errors
 - c)algorithm errors
 - d)transcription errors
- ans)a

19) .Pee hole optimization is a form of

- a)loop optimization
- b)local optimization
- c)constant folding
- d)none of these

ans)a

20) The optimization which avoids test at every iteration is

- a)loop unrolling
- b)loop jamming
- c)constant folding
- d)none of these

ans)a

21) The value of k,in LR(k)cannot be

- a)0
- b)1
- c)2
- d)none of these

ans)d

22) The cost of developing a compiler is proportional to

- a)complexity of the source language
- b)complexity of the architecture of the target machine
- c)flexibility of the available instruction set
- d)all of these

ans)d

23) which of the following is the most general phase structured grammar

- a)Regular
- b)Context free
- c)Context sensitive
- d)none of these

ans)c

24) Type checking is normally done during

- a)lexical analysis
- b)syntax analysis
- c)syntax directed translation
- d)code optimization

ans)c

25) which of the following grammars are not phase structured

- a)Regular
- b)Context free
- c)Context sensitive
- d)None of these

ans)d

26) csg can be recognized by

- a)push down automata
- b)2-way linear bounded automata
- c)finite state automata
- d)None of these

ans)b

27) which of the following is not a source error

- a)faulty design specification
- b)faulty algorithm
- c)Compilers themselves
- d)none of these

ans)d

28) A parser with valid prefix property is advantageous because it

- a)detects error as soon as possible
- b)detects errors as and when they occur
- c)limits the amount of erroneous output passed to the next phase
- d)all of these

ans)c

29) ud-chaining is useful for

- a)determining whether a particular definition is used anywhere or not
- b)constant folding
- c)checking whether a variable is used,without prior assignment
- d)all of these

ans)d

30) Back-patching is useful for handling

- a)conditional jumps
- b)unconditional jumps
- c)backward reference
- d)forward references

ans)d

31) Ir stands for

- a)left to right

- b)left to right reduction
 - c)right to left
 - d)left to right and right most derivations in reverse
- ans)d

- 32) An ideal compiler should
- a)be small in size
 - b)produce object code that is smaller in size and execute faster
 - c)takes less time for compiling
 - d)all of these
- ans)d

- 33) which of the following is used for grouping of characters into tokens
- a)parser
 - b)code optimizer
 - c)code generator
 - d)scanner
- ans)d

- 34) which of the following class of statements usually produces no executable code when compiled
- a)Declaration statements
 - b)Assignment statements
 - c)Input and output statements
 - d)structural statements
- ans)d

- 35) Access time of the symbol table will be logarithmic,if it is implemented by
- a)linear list
 - b)search tree
 - c)hash table
 - d)self-organizing list
- ans)b

- 36) A shift reduce parser carries out the actions specified within braces immediately after reducing,with the corresponding rule of the grammar
- ```
s->xxW {print "1"}
s->y {print "2"}
w->sz {print "3"}
```
- what is the translation of "xxxxyyzz"
- a)11231
  - b)11233
  - c)23131
  - d)233321
- ans)c

- 37) The output of a lexical analyzer is

- a)machine code
  - b)intermediate code
  - c)a stream of tokens
  - d)a parse tree
- ans)c

38) Synthesized attribute can be easily simulated by a

- a)LL grammar
- b)ambiguous grammar
- c)LR grammar
- d)none of these

ans)c

39) which of the following cannot be used as an intermediate code form

- a)post fix notation
- b)Three address codes
- c)Syntax trees
- d)Quadruples

ans)d

40) A Language L is defined by  $L = \{x^n y^n \mid n > 1\}$  which of the following definitions generates the same language as L

- a) $E \rightarrow xEy \mid xy$
- b) $(xy)|(xxyy)$
- c)x-y-
- d)All of these

ans)a

41) pass1

- a)assign address to all statements in the program
- b)save the values assigned to all labels for use in pass2
- c)perform some processing of assembler directives
- d)all of these

ans)d

42) pass2

- a)assemble instruction and generate data
- b)perform processing of assembler directions not done during pass1
- c)write the object program and the assembly listing
- d)all of these

ans)d

43) A compiler which allows only the modified section of the source code to be re-compiled is called

- a)incremental compiler
- b)re-configurable compiler

c)dynamic compiler  
d)subjective compiler  
ans)a

44) In a two pass assembler pseudo code,equ is to be evaluated during  
a)pass1  
b)pass2  
c)not evaluated by the assembler  
d)none of these  
ans)a

45) In a syntax directed translation scheme,if values of an attribute of a node is a function of the attributes of its children,then attribute is called  
a)canonical attribute  
b)synthesized attribute  
c)inherited attribute  
d)none of these  
ans)b

46). Software that allows your computer to interact with the user, applications, and hardware is called  
a) application software b) word processor c) system software d) database software

Answer: C

47) Programs that coordinate computer resources, provide an interface between users and the computer, and run applications are called

a) utilities b) operating systems c) device drivers d) language translators

Answer: B

48). Specialized programs that allow particular input or output devices to communicate with the rest of the computer system are called

a) operating systems b) utilities c) device drivers d) language translators

Answer: C

49). Also known as a service program, this type of program performs specific tasks related to managing computer resources.

a) utility b) operating system c) language translator d) device driver

Answer: A



50) In order for a computer to understand a program, it must be converted into machine language by a(n)\_\_\_\_\_.

- a) operating system b) utility c) device driver d) language translator

Answer: D

51). Which of the following is not a function of the operating system?

- a) manage resources b) Internet access c) provide a user interface d) load and run applications

Answer: B

52). The items that a computer can use in its functioning are collectively called its

- a) resources b) stuff c) capital d) properties

Answer: A

53). Programs that coordinate all of the computer's resources including memory, processing, storage, and devices such as printers are collectively referred to as

- a) language translators b) resources c) applications d) interfaces

Answer: B

54). \_\_\_\_\_ refers to a computer's ability to run more than one application at the same time.

- a) serial computing b) operating system c) parallel computing d) multitasking

Answer: D

55). "GUI" stands for

- a) Gnutella Universal Interface b) Graphic Uninstall/Install
- c) Graphical User Interface d) General Utility Interface

Answer: C

56. Starting or restarting a computer is called

- a) booting the system b) firing the system c) tasking the system d) restoring the system

Answer: A

57. This type of boot occurs when the computer is already on, and you restart it without turning off the power.

- a) generic boot b) live boot c) warm boot d) cold boot

Answer: C

58. In a computer system, data and programs are stored as

- a) files b) records c) archives d) annals

Answer: A

data and programs.

59. In a computer system, related files are generally stored in the same

- a) track b) table c) folder d) wallet

Answer: C

60. An embedded operating system would most likely be found in a

- a) desktop computer b) server c) Web site d) PDA

Answer: D

61. Which of the following is an operating system that would most likely be found on a handheld computer?

- a) Windows XP b) Windows NT c) Windows 2000 d) Windows CE

Answer: D

62. To connect several computers together, one generally needs to be running a(n) \_\_\_\_\_ operating system.

- a) network b) Internet c) stand-alone d) embedded

Answer: A

63. Popular network operating systems include all of the following except

- a) NetWare b) Windows NT Server c) Windows XP Server d) Microsoft DOS

Answer: D

64. Windows and Macintosh are generally considered to be \_\_\_\_\_ operating systems.

- a) network b) stand-alone c) embedded d) DOS

Answer: B

65. Operating systems that are owned and licensed by a corporation are called

- a) proprietary operating systems b) server operating systems  
c) client operating systems d) stand-alone operating systems

Answer: A

66. The objective of these operating systems is to encourage individuals to use, improve, and modify the programs.

- a) proprietary b) freeware c) shareware d) non-proprietary

Answer: D

67. This operating system is an example of an open source program.

- a) Linux b) Windows XP c) Macintosh d) UNIX

Answer: A

68. The most popular microcomputer operating system in use today is

- a) Microsoft Windows b) Linux c) UNIX d) Macintosh

Answer: A

69. The latest version of Microsoft's popular operating system is called

- a) Windows ME b) Windows 2000 Professional  
c) Windows XP d) Windows NT Workstation

Answer: C

70. The first operating system developed that used GUI's was by

- a) Microsoft b) Linux c) Macintosh d) Bell labs

Answer: C

71. The latest version of the Macintosh operating system is

- a) Mac OS IX b) Mac OS IXX c) Mac OS V d) Mac OS X

Answer: D

72. Apple computers use which operating system?

- a) Windows b) Be O/S c) Linux d) Macintosh

Answer: D

73. The Macintosh tool for organizing files is called
- a) Dock b) Sherlock c) Aqua d) Sandbox

Answer: A

files is called a dock.

74. If you were trying to locate a lost file on your Macintosh, which application would you use?
- a) Dock b) Sherlock c) Aqua d) DiskCheck

Answer: B

75. This operating system was originally designed to run on minicomputers used in a network environment.
- a) Linux b) UNIX c) Windows d) Mac OS

Answer: B

76. Which of the following is the latest “flavor” of the UNIX operating system?
- a) Penguix b) Manimal c) Torvalix d) Linux

Answer: D

77. Which of the following is an example of non-proprietary software?
- a) Windows b) Macintosh c) Linux d) MS Office 2000

Answer: C

78. This open source software is free and available from many sources.

- a) Windows b) Macintosh c) Linux d) NetWare

Answer: C

79. Which of the following is NOT one of the alternatives to the Windows operating system?

- a) UNIX b) Macintosh c) NetWare d) Linux

Answer: C

80. What is the name of a utility that protects your computer against downloading malicious code?

- a) file compression program b) antivirus program  
c) backup program d) troubleshooting program

Answer: B

81. To safely remove a program from your computer, you might want to use what type of utility?

- a) backup program b) file compression program  
c) troubleshooting program d) uninstall program

Answer: D

82. Which of the following is a type of utility used to reduce the size of files to increase the amount of available disk space?

- a) file compression program b) troubleshooting program  
c) antivirus program d) uninstall program

Answer: A

83. A utility that makes copies of files in case the originals are lost or destroyed is called a(n)
- a) troubleshooting program
  - b) uninstall program
  - c) backup program
  - d) antivirus program

Answer: C

84. Which of the following Windows utilities will erase unneeded files?
- a) Backup or Restore Wizard
  - b) Disk Cleanup
  - c) Disk Defragmenter
  - d) All of the above

Answer: B

85. A concentric ring on a disk is referred to as a
- a) track
  - b) sector
  - c) table
  - d) segment

Answer: A

86. When files are broken up into small parts on a disk they are said to be
- a) fragmented
  - b) contiguous
  - c) sectored
  - d) disbursed

Answer: A

87. A collection of utility programs bundled and sold together is called a(n)
- a) application suite
  - b) operating system
  - c) utility suite
  - d) system file

Answer: C

several programs into one package.

88. In order for a peripheral to operate correctly, its \_\_\_\_\_ must be installed.
- a) device driver
  - b) user interface
  - c) Internet connection
  - d) none of the above

Answer: A

89. Which one of the following would not be considered as a well-known utility suite?

- a) Windows XP b) eSafe Desktop c) McAfee Office d) Norton SystemWorks

Answer: A

90. You can use what utility to update all of your device drivers at the same time?

- a) Driver Update b) Device Manager c) Driver Verification Service (DVS)  
d) Windows Update

Answer: D