

11. Which one of the following instructions is incorrect?
- A) MOV AL, BP B) INC CX
C) DEC CX D) All
12. Which one of the following is incorrect about Map data structure?
- A) Allow duplicate keys B) Cannot be traversed
C) Allow duplicate values D) None of the above
13. A register used to indicate the condition of the microprocessor is
- A) SI B) FLAG C) DI D) EIP
14. Which one of the following instructions is correct
- A) MOV DS, 20 B) MOV ES, 40 C) MOV SS, 60 D) None
15. A register used to address the next instruction in a section of memory is
- A) RSP B) CS C) RIP D) SS
16. _____ is requirement elicitation techniques that is used to gather the requirements using day-to-day working observation and notes made of the actual tasks.
- A) Use case B) Ethnography C) Scenario D) Interview
17. An ER model of a database consist of entity types A and B. These are connected by the relationship R which does not have its own attribute. Under which one of the following conditions, can the relational table for R be merged with that of A?
- A) Relationship R is one –to –many and the participation of A in R is Total.
B) Relationship R is one –to –many and the participation of A in R is Partial.
C) Relationship R is many –to –one and the participation of A in R is Total.
D) Relationship R is many –to –one and the participation of A in R is Partial.
18. Which one of the following is more related to effective management of software complexity?
- A) Modularity B) Reusability C) Extensibility D) All
19. A DHCP enabled computer on the network has been unplugged from the network for a week. In the meantime, several other computers were added to the network. When plugging the computer back into the network the computer is unable to reach network resources. Which of the following is the MOST likely cause?
- A) the IP address lease has expired on the DHCP server.

C) No need job specialization D) Efficient handling manpower turnover

28. Among the following well known port number of TCP the port number of HTTP is:

A) 80 B) 25 C) 21 D) 110

29. An Internetworking concepts it must have at least one connection with an external network.

A) Internet B) Extranet C) intranet D) All

30. Which one of the following are the specific character strings that make up a token?

A) Token B) Lexemes C) Lexical units D) Pattern

31. The Intel's first true 32-bit microprocessor is

A) Pentium B) 80486 C) 80286 D) 80386

32. A technician is dispatched to a remote office to install a new NIC in a client computer. After successfully installing and configuring the operating system to recognize the device, the computer still cannot access the network. Which of the following would MOST likely be the problem?

A) the CAT5 cable is defective B) the NIC is disabled in BIOS
C) The NIC is disabled in Device Manager D) The RJ11 jack is defective

33. Class B private IP address space ranges:

A) 10.0.0.0-----19.255.255.255 B) 128.12.0.0-----191.24.255.255
C) 172.16.0.0-----172.31.255.255 D) 192.168.0.0-----192.168.255.255

34. The atom constructor can represent the following basic atomic values except.

A) Integers B) Real Numbers C) Strings D) Array

35. Variables within a class but outside any method are?

A) Instance variables B) Local variables C) Class variables D) Static variables

36. Which one of the following operations that have no commutative properties

A) Union B) Join C) Intersection D) None

37. Which testing should focus on testing the functionality of objects or methods?

A) Integration testing B) White box testing
C) Black box testing D) Unit testing

38. The content of BH is 10, AL is 8, CL is 4 how much is the content of AX after MUL BH

A) 40 B) 80 C) 32 D) 320

39. Among the protocol one is used to provide remote access to servers and networking devices.

48. Assume you are asked to connect your main campus debremarkos university to your branch burie agricultural campus. What kind of network you are expected to establish?

- A) Local Area Network
- B) Metropolitan Area Network
- C) Personal Area Network
- D) Wide Area Network

49. What is the purpose of a sequence diagram?

- A) To show the interactions between actors and a system
- B) To show the behavior of objects in a system
- C) To show the flow of activities in a system
- D) To show the order and timing of interactions between objects

50. From steps of problem solving which one is concerned on looking various sequence of action which lead to the goal state, evaluate it and chose the sequence of optimal action?

- A) Execute
- B) Goal Formulation
- C) problem formulation
- D) Search

51. In OSI reference model, which one is responsible for the translation of incoming and outgoing data.

- A) Presentation layer.
- B) Application layer.
- C) Transport layer.
- D) Network layer.

52. The choice of one topology over the other has an impact on:

- A) The capability of the network.
- B) The growth of the network.
- C) The type of equipment that the network needs.
- D) All

53. Suppose your database system crashes again while recovering from a previous crash. Assume check pointing is not done by the database either during the transaction or during recovery. Which of the following is correct?

- A) The same undo and redo list will be used while recovering again
- B) The database will become inconsistent
- C) All the transactions that are already undone and redone will not be recovered again
- D) The system cannot any further

54. One of the following is half-duplex mode of transmission.

- A) Walky-talky/policeman phone
- B) Television
- C) Telephone
- D) One-Way Radio

65. Given an IP address 192.168.20.0/27 how many subnets can be created?

- A) 8 B) 16 C) 32 D) 64

66. Which of the following is the most important feature of the spiral model?

- A) Efficiency management B) Time management
C) Quality management D) Risk management

67. Let transaction T1 has obtained a shared mode lock S on data item Y and transaction T2 has obtained an exclusive lock X on data item Z , according to the above statement which one is correct?

- A) T1 can read Y but cannot write Y B) T2 can read Z but cannot write Z
C) T1 can read Z but cannot write Z D) T2 can read and write item Y

68. Which one of the following is incorrect about inheritance

- A) Subclass inherits members of superclass
B) Constructors are not members
C) Constructors of superclass can be invoked from subclass
D) Constructors of superclass inherited by subclass

69. Which types of rule used in phonology to interpretation of the fluctuation in stress and intonation across the sentences?

- A) Phonetic rule B) Phonemic rule
C) Prosodic rule D) Morpheme rule

70. Given an IP Address 172.16.28.252 with the subnet mask of 255.255.240.0 what is the correct network address?

- A) 172.16.24.0 B) 172.16.28.0
C) 172.16.0.0 D) 172.16.16.0

71. One of the following is true about packet switching.

- A) Packets travel around the network seeking out the most efficient route.
B) Packets should necessarily seek out the shortest route.
C) The message gets broken into small data packets.
D) All

C) Thinking rationally

D) Acting rationally

81. Incremental model of software development is

- A) A reasonable mode when requirements are well define
- B) Good model when a working core product is required quickly
- C) Good model for the projects with large development teams
- D) Good model when user requirements are not complete

82. Which one of the following is the parse tree showing the values of attributes at each node?

- A) Inherited attribute
- B) Synthesized attribute
- C) Annotated parse tree
- D) A & B

83. Which register is found starting from Pentium processor?

- A) EAX
- B) EIP
- C) R8
- D) None

84. Which one is not correct?

- A) In conservative 2PL, starvation may occur
- B) The Wound-Wait scheme can prevent starvation problem
- C) Deadlock can be prevented by wait-die
- D) Some deadlock prevention methods may the cause for starvation

85. Concurrency control in DBMS is important for which of the following reasons?

- A) To ensure data integrity when updates occur to the database in a single user environment
- B) To ensure data integrity when reads occur to the database in a single user environment
- C) To ensure data integrity when updates occur to the database in a multi user environment
- D) To ensure data integrity when reads occur to the database in a multi user environment

86. Let you have two relations A and B, each table has 200 and 100 rows of records respectively. So after applying cross product on those tables, how many rows of records you will have?

- A) 300
- B) 20000
- C) 2000
- D) 100

87. Which one of the following is correct about narrowing casting?

- A) Done by the programmer
- B) It is automatic

- A) It is application area of AI emphasis of creation of intelligent and Efficient robot
- B) It is a multi disciplinary area of AI
- C) It focus on Electrical, Mechanical and software part of robot
- D) All

95. Which one of the following is incorrect about method overriding?

- A) A method declared final cannot be overridden
- B) Similar argument list is required
- C) Constructors cannot be overridden
- D) None

96. Which one of the following are translate the whole source program into object code.

- A) Compiler
- B) Interpreter
- C) Linker
- D) All

97. A movement between a register and memory location is

- A) Direct addressing
- B) Immediate addressing
- C) Register addressing
- D) None

98. One of the following is responsible for receiving and transmitting the signals across the physical media.

- A) Datalink Layer
- B) Physical layer
- C) Application Layer.
- D) Transport Layer.

99. One of the following is not a characteristic of SRAM

- A) Fast
- B) Expensive
- C) Memory refreshing
- sD) None

100. Which one of the following can be applied directly after intermediate code generation to improve the intermediate representation?

- A) Peephole optimization
- B) Constant Propagation
- C) Dead code elimination
- sD) All

101. Which one of the following is analog to digital converter?

- A) ADC080X
- B) DAC0830
- C) 82C55
- D) None

102. Network operating system runs on _____

- A) Server
- B) every system in the network

C) Concurrency –control protocol D) Database administrator

113. Which one of the following is incorrect about Map data structure?

- A) Allow duplicate keys B) Cannot be traversed
- C) Allow duplicate values D) None of the above

114. _____Occurs when two transactions update the same data item, but both read the same original value before update

- A) Dirty read B) Lost update C) Incorrect summary D) Unrepeatable read

115. Which of the following correctly shows Machine intelligence is deferent from Human intelligence.

- A) Machine can figure out complete objects even some part is missed
- B) Machines are Naturally intelligent
- C) Store and Recall information with set of instruction
- D) Take precepts from environment with pattern

116. One of the following is false about peer – to – peer network.

- A) All computers are function as both a client and a server.
- B) There is an administrator responsible for the entire network.
- C) There is no a hierarchy among the computers.
- D) In peer – to – peer network security is not an issue.

117. Which one of the following is not a multipurpose register?

- A) AX B) BP C) SI D) SP

118. _____a software product is necessary to rectify the bugs observed while the system is in use.

- A) Adaptive maintenance B) Corrective maintenance
- C) Perfective maintenance D) Updatable maintenance

119. The top-level directory on a Linux system is represented as _____

- A) / B) \$ C) * D) #

120. Which types of searching strategies is not grouped under blind search?

- A) Breadth first search B) Uniform cost search
- C) Constraint satisfaction search D) Depth limited search

121. Which one of the following are keeps information associated with all kinds of tokens?