COMPUTER ENGINEERING

1. In _____ all the logic are implemented using resistors and transistors.

Resistor Transistor logic

2. _____ is the maximum number of inputs that can be driven by a logic gate.

Fan-out

3. _____ logic family implements the logic gates using MOSFET devices

MOS Logic

4. For which logic gate, the output is "true" if either, but not both, of the inputs are "true."

XOR

5. The _____ latch is hazard free.

Earle Latch

6. The input must be held steady in a period around the rising edge of clock known as _____.

Aperture

7. The flag size of an HDLC frame is _____

8 bits

8. Contents of one disk to another disk can be done using the command _____

DISKCOPY

9. The assembler takes as its source code _____ language program

Assembly

10. In computer graphics, digital differential analyzer is used for _____ of lines, triangles and polygons.

Rasterization

11. The heuristic function A* should estimate the _____ cost of reaching the destination.

Minimum

12. The language that doesn't use user defined functions, pointers and user defined types is____

COBOL

13. ___ is a channel access method used by various radio communication technologies.

CDMA

14. _____ acts as a multiple-input and single-output switch.

Multiplexer

15. The small extremely fast, RAM's are called as _____

Cache

16. The decoded instruction is stored in _____

Instruction Register

17. The instruction, Add #45, R1 does _____

Adds 45 to the value of R1 and stores it in R1

18. Let R1 and R2 be regular sets defined over the alphabet then:

Σ* -R1 is regular.

19. If L1 and L2 are context free languages and R a regular set, ___ languages below is not necessarily a context free language.

L1 ∩ L2

20. The string 1101 does not belong to the set represented by

(10)* (01)* (00+11)*

21. Identify which cannot be a advantageous development tool for working with an expert system

Recursion

22. To make an algorithm in to a program which system can be used that is defined by Turing machine?

binary

23. Which of the following technology is used to improve the relationship about people and computer machines?

human factors

24. Which instinct determines the basic learning problem?

Feedback

25. Spot out utility functions used in game playing algorithm?

Linear weighted polynomial

26. What will be the outcome if the true function is contained by hypothesis?

Unrealizable

27. Decision tree technique culminates its decision with_____

Sequence of tests

28. In a graphic system the number of pixels in a buffer is called _____

Resolution

29. Electrical energy can be converted into light using_____ device?

Emitters

30. In which system, the Shadow mask methods are commonly used

Raster-scan system

31. For calculating pixel positions, which of the following is an appropriate algorithm ?

DDA line

32. Which body transformation will make the objects to move without deformation.

Translation

33. Figure out the model that exhibits dynamic behavior of the architecture?

Behavioral Model

34. In UML which diagrams support event based modeling?

State chart

35. Identify the model that hamper in early defining of requirements.

Prototyping & Spiral

36. Figure out the right option in the below

Both RAD & Prototyping Model facilitates reusability of components

37. The finest type of module coupling of the following is _____

Data Coupling

38. Which type of cohesion exhibits that all operations should be executed in same time span?

Temporal

39. Which is right as far as testing is concerned?

Evaluating deliverable to find errors

40. Cyclomatic complexity can also be called as_____

White box testing

41. The alias name of white box testing is _____

Structural testing

42. _____ interface transfer data to and from the memory through memory bus.

Direct Memory Access

43. Which of the following method cannot access information from memory locations

Indirect Access

44. The relationship between a function and its binary variables can be represented in a ____

Truth Table

45. Most common register, used to store data taken out from the memory is ____.

Accumulator

46. Which of the following is not a step in floating point addition and subtraction.

Reset Register

47. Identify the disadvantage of Pipelining from the following:

High instruction latency

48. Unplanned interrupts which are produced during execution of program is called ___

Exception

49. Data transfer between the CPU and the peripherals is initiated by the _____

CPU

50. __ algorithm determines whether there is a path between any two nodes in the graph.

Warshall

51. Cycle graphs with an even number of _____ are bipartite.

Vertices

52. Planar graphs have graph genus _____

0

53. For any planar graph with v vertices, e edges and f faces, we have _____

$v-e+f=2$

54. Noise margin is high in which of the following___

Complementary Metal Oxide Semiconductor

55. The decimal equivalent of the binary number 101011 is _____

$(43)_{10}$

56. The binary equivalent of the hexadecimal number $(3A5)_{16}$ is _____

$(0011\ 1010\ 0101)_2$

57. Binary tree traversed in _____ traversal will produce sorted key values in ascending order.

In-order

58. A ___ binary tree has the minimum possible maximum height for the leaf nodes.

Balanced

59. In PASCAL, the data type ____ is equivalent to an array of boolean values.

Set

60. ____ is a variant that added non-numeric labels, a return statement and expressions as names of types.

Super Pascal

61. Which of the following statement doesn't exist in FORTRAN

Halt

62. The unformatted I/O command for reading a tape in FORTAN is _____

READ TAPE

63. Which normal form is considered adequate for normal relational database design?

3 NF

64. Let R = (A, B, C, D, E, F) be a relational schema with the following dependencies: C →F, E→ A, EC→D, A→2. Which of the following is the key for R?

EC

65. Which one of the following statements about normal form is FALSE?

. **Lossless, dependency-preserving decomposition into BCNF is always possible**.

.66. How many units in a single bus structure communicate at a time?

Two

67. Which of the following units cannot be used to measure the speed of computer?

BAUD

68. B+-trees are preferred to binary trees in databases because

Disk access is slower than memory access.

69. Banker's Algorithms is used as _____.

Deadlock Avoidance method

70. Assume that there are 3 page frames which are initially empty. If the page reference string is 1, 2, 3, 4, 2, 1, 5, 3, 2, 4, 6, the number of page faults using the optimal replacement policy is_____.

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71. Which of the following page replacement algorithms suffers from Belady's anomaly?

FIFO

72. _____ Uses a standard called Distributed Queue Dual Bus (DQDB) or refer to as 802.6 IEEE Standard.

MAN

73. The Hamming distance between 100 and 001 is _____.

2

74. Manchester encoding is principally designed to _____.

Ensure that a transition occurs in the centre of each bit period.

75. Count-to-infinity problem arises in _____Routing algorithm.

Distance Vector

76. ____ is a path that visits each vertex of the graph exactly once.

Hamiltonian Path

77. A graph with chromatic number < = 2 is called _____

Bi-colorable

78. The __ counts the number of ways a graph can be colored using no more than given colors.

Chromatic Polynomial

79. Which of the following is not an application of Graph coloring?

Classification

80. _____ is the formal specification of the behavior of computer programs and programming languages.

Formal Semantics

81. The worst time complexity of Binary Search tree is _____

O(n)

82. The average time complexity of AVL Tree is _____

O(log(n))

83. _____ is a comparison-based algorithm that builds a final sorted array one element at a time.

Insertion Sort

84. The best-case time complexity of Heap Sort is _____

O(n log n)

85. An ____ is a collection of operators and operands that represents a specific value.

Expression

86. The Postfix expression for the given Infix expression (A + B) * (C – D) is _____

AB+CD-*

87. The Postfix expression value of the expression 5 3 + 8 2 - * is _____

48

88. Which of the following statement is not true?

There can be only single state in both DFA and NFA.

89. The data structure that can be used in Pushdown automata is _____

Stack

90. ___ can be transformed into an equivalent nondeterministic pushdown automata.

Context-free grammar

91. Which of the following does not exist in context free grammar?

End Symbol

92. A Grammar which produces more than one parse tree for a sentence is called _____.

Ambiguous

93. The computer language generally translated to pseudo-code is ____

Assembly

94. Which of the following is not a basic operation of a Turing Machine?

Store the symbol on the square of the head.

95. The tuple 'Q' in Turing machine refers to _____

States

96. Type 0 grammar is known as _____ grammar.

Context free

97. In C++, the _____ cannot be passed to a function.

Structure

98. Which of the following is true in respect to Distributed Systems?

Loosely coupled O.S software on a tightly coupled hardware.

.99. Dijkstra's algorithm is based on

Divide and Conquer paradigm

100. Which of the following is not a multitasking operating system?

DOS

101. The ____ will scan partition table located within sector, for an active partition.

Master Boot Record

102. The centralized operating system running in UNIX is _____.

Kernel

103. Which of the following is not a UNIX feature?

File Allocation Table

104. ___ is a file system used to help user to hide different file systems complexities.

Virtual File System

105. _____ help interpret symbols, their types, and their relations with each other.

Semantics

106. ____ is the extraction of individual words or lexemes from an input stream of symbols.

Lexical Analysis .

107. _____ parsing is top-down parsing using a stack as the memory.

LL(1)

108. We can look up a directory object by supplying its name to the _____ service.

Directory

109. ___ file system in volatile main memory, contents erased if the system reboots or crashes.

tmpfs

110. Which of the following is the base directory representation in Linux file system?

/

111. ____ is a description of sequences of events taken together, lead to a system doing something useful.

Usecase diagram

112. A _____ model is an abstract model that describes how data is represented and used.

Data model

113. A ___ typically simulates few aspects and may be completely different from final product.

Prototype

114. __ idea is to build computers with easily replaceable parts that use standard interfaces.

Modular design

115. _____ is the degree of interdependence between Software modules.

Coupling

116. _____ cohesion is when parts of a module are grouped by when they are processed.

Temporal

117. A ε-free LL(1) grammar is also a _____ grammar.

SLR(1)

118. Which of the following is a bottom-up parser?

LR

119. Which of the following layer doesn't belong to Media layers?

Transport

120. The ___ layer provides link between two directly connected nodes.

Data link layer

121. The protocol data unit in the physical layer is _____

Symbol

122. Regular languages are generated by _____ languages.

Type - 3

123. The smallest free form that may be uttered in isolation with pragmatic content is ___.

Word

124. Which of the following is not a graphic primitive.

Richtext

125. Which of the following is not a subfield of animation.

Rendering

126. The time complexity of Breadth-First search is _____

O(V + E)

127. Which of the following is not true towards Spanning tree.

Adding one edge to a spanning tree will not create a circuit.

128. Identify which of the following is not a characteristic of Data Structure.

High lines of code

129. Data items that cannot be divided are called as _____.

Elementary items

130. Identify the advantage of SIMD from the following.

Instructions operate on all loaded data in a single operation.

131. In MIMD, each processor is connected to its ____ immediate neighbors.

Four

132. Identify which of the following is not a type of Shared Memory.

Shared Memory: Ring-based

133. _____ is a logic programming language associated with artificial intelligence.

Prolog

134. A ___ is a general reusable solution to a commonly occurring problem in Software design.

Design Pattern

135. Consider the join of a relation R with a relation S. if R has m tuples and S has n tuples,

then the maximum and minimum sizes of the join respectively are:

mn and 0

136. Context-free languages are:

Closed under union

.137. ____ is one of LISP's major data structure.

Linked list

138. Which of the following is an expression oriented language.

LISP

139. In synchronous framing, a flag sequence consists of ____ consecutive 1-bits.

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140. ___ is a computer system that emulates the decision-making ability of a human expert.

Expert system

141. _____ takes executable module generated by linker.

Loader

142. ___ incorporates findings from psychology about how humans solve problems**..**

Knowledge representation

143. The compress or expand of the dimensions of an object is called _____

Scaling Process

144. ____ of a data point is accomplished through the addition of factors to the x and y coordinates.

Translation

145. A ___ is a finite state machine whose output depends on present state and present input.

Mealy Machine

146. _____ is the set of all objects that are a member of A, or B, or both.

Union

147. Which of the following is not a representation of a Set.

Equal set

148. ___ is the allocation of a Computer's processor power to specific tasks.

Scheduling

149. Symbol used to get the value of the variable that the pointer is pointing to ___.

'*'

150. A function ___ tells the compiler about a function's name, return type and parameters.

Declaration