

SECOND PART

Question Paper Code / Subject: Computer Science

51. Which of the following is/are tautology?

- (A) $a \vee b \rightarrow b \wedge c$ (B) $a \wedge b \rightarrow b \vee c$
(C) $a \vee b \rightarrow (b \rightarrow c)$ (D) None of these

52. Matrix multiplication is a/an _____ property.

- (A) Commutative (B) Associative
(C) Additive (D) Disjunctive

53. In an n-ary tree, each vertex has at most _____ children.

- (A) n (B) n^4
(C) $n*n$ (D) $n-1$

54. How many states are there in combinatorial FSM?

- (A) Commutative (B) Associative
(C) Additive (D) Disjunctive

55. Any transcription error can be repaired by

- (A) Insertion alone (B) Deletion alone
(C) Insertion and deletion alone (D) Replacement alone

56. In a compiler, keywords of a language are recognized during

- (A) parsing of the program (B) the code generation
(C) the lexical analysis of the program (D) dataflow analysis

57. A compiler for a high-level language that runs on one machine and produces code for a different machine is called

- (A) Optimizing compiler (B) Cross compiler
(C) One pass compiler (D) Multipass compiler

58. In artificial Neural Network interconnected processing elements are called

- (A) nodes or neurons (B) Soma
(C) weights (D) axons

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59. ----- mimics the behaviour of social insects.
- (A) Genetic Algorithm (B) Swarm Intelligence
(C) Ant Colony (D) Artificial Intelligence
60. In distributed system, each processor has its own
- (A) clock (B) local memory
(C) both local memory and clock (D) none of the mentioned
61. Network operating system runs on
- (A) server (B) every system in the network
(C) both A and B (D) none of the mentioned
62. Processes on the remote systems are identified by
- (A) host ID (B) host name and identifier
(C) identifier (D) process ID
63. Which of the following statements is false regarding the Boolean retrieval model?
- (A) It does not perform query spell check
(B) It does not capture information about term position in the documents
(C) It does not consider document structure
(D) It considers term frequency information to rank results
64. The goal of IR is to:
- (A) find documents relevant to an information need
(B) find documents relevant to an information need from a given document set
(C) find documents relevant to an information need from a large document set
(D) find documents relevant to an information need from a small document set
65. Unstructured data tends to refer to information on the web and is processed using:
- (A) Database systems (B) IR systems
(C) Both (D) None

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66. Color transformation is processed between the
- (A) Single color model (B) Dual color model
(C) Tri color model (D) Any color model
67. Fourier transform of unit impulse at origin is
- (A) undefined (B) 0
(C) infinity (D) 1
68. What is comprised of millions of smart devices and sensors connected to the internet?
- (A) the fog (B) the data center
(C) the internet of things (D) the cloud
69. What is a sensor?
- (A) a device that detects or measures an event or physical property
(B) something that provides products and services to customers through an internet connection
(C) anything that stores data
(D) the foundation of the digitized world
70. Which is the future application of IoT?
- (A) QoS in communication (B) Role of green IoT system
(C) Secure communication (D) Multimedia communication
71. Which language is preferred for IoT analytics?
- (A) Python (B) Java
(C) C (D) PHP
72. _____ is an attack attempts on guessing every possible valid combination for a key or password.
- (A) Denial of Service Attack (B) Replay Attack
(C) Brute Force Attack (D) Man in Middle Attack
73. Which one of the following encrypts a digital data stream one bit or one byte at a time.
- (A) Block Cipher (B) Stream Cipher
(C) Both (A) & (B) (D) None of the above

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74. _____ was designed by IBM.
- (A) AES (B) RSA
(C) DES (D) SHA
75. _____ is a Cloud based method of providing software to users.
- (A) IaaS (B) SaaS
(C) PaaS (D) All of the above
76. Which one of the following allows system and services to be accessible by group of organisations.
- (A) Public Cloud Model (B) Private Cloud Model
(C) Hybrid Cloud Model (D) Community Cloud Model
77. How does the state of the process is described in HMM?
- (A) Literal (B) Single random variable
(C) Single discrete random variable (D) None of the mentioned
78. Which of the following is finally produced by Hierarchical Clustering?
- (A) final estimate of cluster centroids (B) tree showing how close things are to each other
(C) assignment of each point to clusters (D) all of the mentioned
79. When performing regression or classification, which of the following is the correct way to pre-process the data?
- (A) Normalize the data → PCA → training
(B) PCA → normalize PCA output → training
(C) Normalize the data → PCA → normalize PCA output → training
(D) None of the above
80. The most widely used metrics and tools to assess a classification model are
- (A) Confusion matrix (B) Area under the ROC curve
(C) Cost-sensitive accuracy (D) All the above
81. Self-organizing maps are an example of
- (A) Unsupervised Learning (B) Supervised Learning
(C) Reinforcement Learning (D) Missing data imputation

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82.What are the different features of Big Data Analytics?

- | | |
|-------------------|-------------------|
| (A) Scalability | (B) Open Source |
| (C) Data Recovery | (D) All the above |

83.What license is Hadoop distributed under?

- | | |
|------------------------|----------------|
| (A) Apache License 2.0 | (B) Shareware |
| (C) Mozilla | (D) Middleware |

84.What are the main components of Big Data?

- | | |
|---------------|-------------------|
| (A) MapReduce | (B) HDFS |
| (C) YARN | (D) All the above |

85.Which of the following is NOT supervised learning?

- | | |
|-------------------|-----------------------|
| (A) PCA | (B) Linear Regression |
| (C) Decision Tree | (D) Naïve Bayesian |

86. A model of language consists of the categories which does not include _____.

- | | |
|-----------------|----------------------|
| (A) system unit | (B) structural units |
| (C) data units | (D) empirical units |

87 . SRS is also known as specification of

- | | |
|------------------------|-----------------------|
| (A) White box testing | (B) Stress testing |
| (C) Integrated testing | (D) Black box testing |

88. A COCOMO model is

- | | |
|-------------------------------------|--|
| (A) Common Cost Estimation Model. | (B) Constructive Cost Estimation Model. |
| (C) Complete Cost Estimation Model. | (D) Comprehensive Cost Estimation Model. |

89. The order in which Test Levels are performed is:

- | | |
|---|---|
| (A) Unit, Integration, Acceptance, System | (B) Unit, System, Integration, Acceptance |
| (C) Unit, Integration, System, Acceptance | (D) It depends on the nature of a project |

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90. Which one of the following is the deadlock avoidance algorithm?

- (A) banker's algorithm (B) round-robin algorithm
(C) elevator algorithm (D) karn's algorithm

91. What is the ready state of a process?

- (A) when process is scheduled to run after some execution (B) when process is unable to run until some task has been completed
(C) when process is using the CPU (D) none of the mentioned

92. RAID level 5 is also known as _____

- (A) bit-interleaved parity organization (B) block-interleaved parity organization
(C) block-interleaved distributed parity (D) memory-style ECC organization

93. What are the different ways to initialize an array with all elements as zero?

- (A) `int array[5] = {};` (B) `int array[5] = {0};`
(C) `int a = 0, b = 0, c = 0;` (D) All the mentioned
(C) `int array[5] = {a, b, c};`

94. What will be the output of the following C code?

```
#include <stdio.h>
struct student
{
    char *c;
};
void main()
{
    struct student m;
    struct student *s = &m;
    s->c = "hello";
    printf("%s", s->c);
}
```

- (A) hello (B) Run time error
(C) Nothing (D) Depends on compiler

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95. What will be the output of the following C code?

```
#include <stdio.h>
void main()
{
    int x = 97;
    int y = sizeof(x++);
    printf("X is %d", x);
}
```

- (A) X is 97
(B) X is 98
(C) X is 99
(D) Run time error

96. What data structure is used for breadth first traversal of a graph?

- (A) queue
(B) stack
(C) list
(D) none of the above

97. In ER model the details of the entities are hidden from the user. This process is called:

- (A) generalization
(B) specialization
(C) abstraction
(D) None of the above

98. Which of the following is usually chosen as a primary key for a relation?

- (A) A candidate key that is composite
(B) A super key
(C) A candidate key that is minimal
(D) All of the above

99. Data is moved between disk storage and main memory as needed, because of the

- (A) efficiency
(B) storage space
(C) processing speed
(D) normalization

100. The default value of a static integer variable of a class in Java is

- (A) 0
(B) 1
(C) Garbage value
(D) null
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51 - B	76 - D
52 - B	77 - C
53 - A	78 - B
54 - B	79 - A
55 - C	80 - D
56 - C	81 - A
57 - B	82 - D
58 - A	83 - A
59 - B	84 - D
60 - C	85 - A
61 - A	86 - B
62 - B	87 - D
63 - D	88 - B
64 - C	89 - D
65 - B	90 - A
66 - A	91 - A
67 - D	92 - C
68 - C	93 - D
69 - A	94 - A
70 - B	95 - A
71 - A	96 - A
72 - C	97 - C
73 - B	98 - C
74 - C	99 - B
75 - B	100 - A