2201   **CIC-1**

CERTIFICATE PROGRAMME IN COMPUTING
JANUARY 2006.
Term–End Examination

THE CONTEXT

Time : 2 hours   Maximum marks : 100

Note :

(i)   Do not start answering until the invigilator asks you to start.

(ii)   Question paper contains 100 questions. Student is required to answer all the questions. There is no choice.

(iii)   All questions carry equal marks.

(iv)   Each question must be given one answer only. If more than one answer is given, zero mark will be awarded for that question.

A.   Multiple Choice (Question Numbers 1 to 30)

Note : Four choices are given for a question, out of which one choice may be correct. Mark correct answer in relevant box of the answer sheet given to you.

1.   Information is seen as structure of the world in

(a)   Structural approach   (b)   Knowledge approach

(c)   Message approach   (d)   Process approach.

2.   ——————— is an observed fact obtained on the basis of a survey or study relating to a certain activity.

(a)   Data   (b)   Information

(c)   Knowledge.   (d)   Skills.

3. —————————— comes to one through acquisition of sound knowledge and the related virtues by age and experience.

    (a) Wisdom   (b) Knowledge

    (c) Information.   (d) Intelligence.

4. —————————— is the physical media that carry messages or contents of information.

    (a) Source   (b) Channel

    (c) Media   (d) Recipient.

5. Internet is governed by

    (a) ISOC   (b) IETF

    (c) NASA   (d) Both (a) and (b).

6. Graphical programs such as Mosaic requires modem that transmits data at a minimum of

    (a) 9600 bits per second

    (b) 14400 bits per second

    (c) 28800 bits per second

    (d) 38800 bits per second.

7. Which complexity is the best exemplified by system based upon principles of statistical mechanics

    (a) Organized simplicity

    (b) Disorganized simplicity

    (c) Organized complexity

    (d) None of the above.

8. A popular technique for forecasting is

    (a) Correlation analysis   (b) Regression analysis

    (c) Linear programming   (d) Monte carlo.

9. The amount of memory that it needs to run to completion is

    (a) Time complexity   (b) Space complexity

    (c) Organized complexity   (d) None of the above.

10. —————— means computing time is a constant

    (a) O(n)   (b) O(n²)

    (c) O(n³)   (d) O(1).

11. Complexity is being considered as a

    (a) Difficult problem

    (b) Management tool

    (c) Solution of simple problem

    (d) All of the above.

12. The class NP in NP – Completeness is defined as a set of all decision problem that can be solved by —————— computer in polynomial time

    (a) Non–deterministic

    (b) Deterministic

    (c) Specific

    (d) Non–specific.

13. The encapsulation feature in OOP encapsulates

    (a) Object and Classes

    (b) Data and Objects

    (c) Data and Program

    (d) All of the above.

14. Polymorphism means

    (a) Single operation can have different behaviour in different objects

    (b) Double operation can have double behaviour in different objects

    (c) Triple operation can have single behaviour in different objects

    (d) None of the above.

15. Example(s) of OOP language is/are

    (a) VC++   (b) VB

    (c) Both (a) and (b)   (d) None of the above.

16. One can interact with operating system

    (a) By means of operating system commands

    (b) By means of system call

    (c) Both (a) and (b)

    (d) None of the above.

17. The number's apparently unrelated problems called

    (a) Cannibals and Missionaries problem

    (b) Konigsberg problem

    (c) Both (a) and (b)

    (d) None of the above.

18. Decanting problem are most directly solved by using ————— coordinate

    (a) Trilinear   (b) Bilinear

    (c) Linear   (d) None of the above.

19. The Euclid applied the very useful technique of

    (a) Reductio ad absurdun   (b) Fundo ad factor

    (c) Bios   (d) None of the above.

20. The basic and most important theorem in geometry is

    (a) Isosceles triangle theorem

    (b) Pythagoras theorem

    (c) Acute angle–triangle theorem

    (d) None of the above.

21. World Wide Web

    (a) Is a part of the internet

    (b) Is another name for the internet

    (c) Both (a) and (b)

    (d) None of the above.

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22. MIS should be developed by

    (a) The Manager   (b) The information specialist

    (c) Both (a) and (b)   (d) Neither (a) nor (b).

23. OAS stands for

    (a) Office auto system

    (b) Office automation system

    (c) Office automaintain system

    (d) None of the above.

24. DSS stands

    (a) Decision supply system

    (b) Decision support system

    (c) Decision suppress system

    (d) None of the above.

25. ES stands for

    (a) Expert system   (b) Export system

    (c) Export service   (d) None of the above.

26. Real time systems

    (a) Are effective in process control

    (b) Process transactions by means of direct—access devices

    (c) Process data in a manner similar to batch processing systems

    (d) Correspond to fifth generation computers.

27. A modem is a hardware device that interfaces

    (a) CPU and CRT

    (b) Printer and main memory

    (c) Telephone lines and computer equipment

    (d) Input and output device.

28. The protocol that is used to transfer files from one machine to another on internet is
    (a) TCP/IP   (b) FTP
    (c) HTTP   (d) PPP.

29. In a distributed computer system
    (a) There are many computers and terminals
    (b) The task is executed by a number of processes
    (c) The task is distributed throughout the system
    (d) All of the above.

30. Which is not a flowchart
    (a) Systems flowcharts   (b) Computer run flowcharts
    (c) Program flowcharts   (d) Data flow diagram.

B. State whether True or False (Question Numbers 31 to 100)

    Note : In the following 70 questions, write 'True', if the statement given is true and write 'False' if the statement given is false.

31. The process of fusion began to overcome information gaps.

32. Information society will be dominated by information values.

33. Production scheduling comes under the preview of data processing for records.

34. The structural approach assumes knowledge as part of a world wide structure.

35. One of the resistance to information flow can be because of media.

36. Humans are faster than computers in retrieving data.

37. The industrial society was organized around agriculture.

38. Cost of information system includes the cost of space and environmental control factors.

39. Form utility refers to the availability of information of the right place.

40. Internet is a global network and is managed by a profit oriented organization.

41. The role of TCP is to divide a message into packets and specify their destination address.

42. For logging in to internet you must have an account on its host machine.

43. You can be a part of multimedia conferencing via internet even if you are using dial up.

44. Elm, Pine are mail programs.

45. Usenet newsgroup is a mechanism for group of people who have shared interests to establish and maintain contact..

46. News—reader is a hardware device on Usenet.

47. Telnet is used for remote login.

48. We can look at the contents of a file while we are connected via Ftp.

49. Hypermedia is same as hypertext.

50. HTML is used for creating home page for WWW.

51. Windows 95 provide software for browsing internet.

52. Complexity can be handled through OOP approach.

53. When a program is run on a computer, time complexity is the only most important consideration

54. Three ranges of complexity are distinguished from each other in the mathematical treatment they require.

55. $O(n^2)$ is an quadratic algorithm.

56. The time space requirement for space complexity may be fixed or variable.

57. Traveling sales person is the problem of Big–O Notation.

58. Organized simplicity is characterized by small number of variables and high degrees of determinism.

59. Function f is called a time complexity function such that f(n) is the smallest amount of time needed by the algorithm to solve the problem of size n.

60. Non linear objects enjoy an identical, simple geometry.

61. Rene Thom is an European mathematician.

62. Space requirement do not depend on the number and size of the program's inputs and outputs is called fixed space requirement.

63. Graph coloring is a NP–Complete problem.

64. C is a conventional procedure oriented programming language.

65. Abstract data type is a built – in C data type.

66. The term inheritance is sometimes called reuse.

67. White–Water's Actor allow programmers to create graphical user environment in much less time.

68. C++ is a hybrid system.

69. Reusability is the key to increasing productivity in the face of increasing complexity.

70. Flexibility is not a trademark of object orientation.

71. Mathematicians study their subject not to solve puzzles merely but also for the thrill of discovery.

72. The graph of the Konigsberg bridges has vertices of odd degree and cannot include an Eulerian circuit.

73. Diophantine equations have been of immense importance in the development of the theory of numbers.

74. The distribution of primes seems to follow no law or pattern.

75. Jung's theorem states that the trisectors of the angles of any triangle intersect at the vertices of an equilateral triangle.

76. Retaining data for future reference is called memorising.

77. Decanting problem are most directly solved by using linear coordinates.

78. The name of the seven way bridge is Konigsberg.

79. Euler proof the fibonacci series.

80. Archimedes is the first mathematician in the third century B.C.

81. Batch processing is one way of data handling in a transaction system.

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82. On-line processing is quite useful when majority of records in a large database must be processed at the same time.

83. +,=,[ ],( ) are major symbols used in data dictionary.

84. A decision table with two conditions show three results.

85. Passive dictionary performs documentation only.

86. The top–level management used decision support system.

87. JCL is job command language.

88. Dialogue tree maps the static and dynamic messages that take place between the computer and the user.

89. Wisdom and knowledge can be transferred to others easily.

90. Information can be recorded or oral if classified by media.

91. CompuServe is an American internet service provider.

92. We can publish research information on internet.

93. WAN is the networking through satellite.

94. Alta Vista is an search engine available on internet for searching.

95. Beta test is the test done by first time users.

96. A client/Server system is better than the file server system.

97. In ring topology there is no need of cable for networking.

98. E–mail can be used to send text pictures and movies.

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99. Internet Explorer is the web browser.

100. We can do chatting on internet but cannot create the chat room.

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