

CERTIFICATE IN COMPUTING (CIC)**Term-End Examination****June, 2007****CIC-1 : 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 marked or given, zero mark will be awarded for that question.

A Multiple Choice (Questions number 1 to 50)

Note : Four choices are given for a question, out of which one choice may be correct. Mark correct answer in relevant column of the answer sheet given to you. In case you feel that none of the choices given in a question is correct, mark in column '0'.

1. In data processing, classifying, calculating, sorting and summarizing data are connected with
 - (1) Capturing of input data
 - (2) Manipulating of data
 - (3) Managing output results
 - (4) None of these
2. A computer system is made up of
 - (1) Hardware only
 - (2) Software only
 - (3) Hardware and software
 - (4) None of these
3. A common use of distributed computers is
 - (1) Scientific computing
 - (2) Client-Server computing
 - (3) Business-oriented computing
 - (4) None of these

4. For talking to Internet host computer, the computer uses
- (1) TCP/IP
 - (2) Emulation software
 - (3) IPX
 - (4) None of these
5. A Time-sharing system is
- (1) Multiprogrammed batch system
 - (2) Single user system used by several users
 - (3) Interactive multiprogrammed system with several users
 - (4) None of these
6. The series of information flow model is
- (1) Source → Message → Channel → Receiver
 - (2) Source → Channel → Message → Receiver
 - (3) Receiver → Source → Message → Channel
 - (4) Receiver → Source → Channel → Message
7. The role of IP is to
- (1) Link the packets
 - (2) Put destination addressing information on packets
 - (3) Inform the packets
 - (4) Collect the packets
8. Quality of information is measured on the basis of
- (1) Validity
 - (2) Accuracy
 - (3) Precision
 - (4) All of the above
9. The complexity of an object is in the _____ of the observer.
- (1) Ears
 - (2) Eyes
 - (3) Mind
 - (4) Mouth
10. The space required by an algorithm/program to run to completion is called
- (1) Space complexity
 - (2) Time complexity
 - (3) Linear complexity
 - (4) Non-linear complexity
11. When users cannot see inside the object but can use the object by calling the program part of the object it is known as
- (1) Class
 - (2) Function
 - (3) Encapsulation
 - (4) Inheritance

12. Which of the following is *not* a type of inheritance ?
- (1) Single Inheritance
 - (2) Multiple Inheritance
 - (3) Multi-level Inheritance
 - (4) None of these
13. Transaction Processing System includes activities like
- (1) Calculation
 - (2) Classification
 - (3) Sorting
 - (4) All of the above
14. Data flow and operations for a data processing system is described through
- (1) System flow chart
 - (2) Computer run flow chart
 - (3) Program flow chart
 - (4) Problem run flow chart
15. A logical relationship between computer routines, inputs, master files, transaction files and output can be described through
- (1) System flow chart
 - (2) Computer run flow chart
 - (3) Program flow chart
 - (4) Problem run flow chart
16. In _____ system the time delay between the creation of data to actual processing is 'insignificant'.
- | | |
|----------------------|---------------|
| (1) Batch processing | (2) Real-time |
| (3) Online | (4) Off-line |
17. On the basis of functions which one of the following is a type of data dictionary ?
- | | |
|-------------|----------------------|
| (1) Passive | (2) Active |
| (3) In-line | (4) All of the above |
18. To provide the infinitude of the primes Euclid applied the technique of
- (1) Reductio-ad-absurdum
 - (2) Conundrums
 - (3) Pythagorean triples
 - (4) Sieve of Eratosthenes

19. What will be the decimal number of a ternary number '12021' ?
- (1) 132
 - (2) 138
 - (3) 142
 - (4) 148
20. _____ can be regarded as the fundamental building blocks from which all positive numbers are constructed.
- (1) Odd number
 - (2) Even number
 - (3) Prime number
 - (4) Whole number
21. Which of the following is *not* a part of decision tree ?
- (1) Leaf
 - (2) Branch
 - (3) Root
 - (4) Shoot
22. A graph G is a composition of two sets i.e.
- (1) vertices and edges
 - (2) edges and degree
 - (3) vertices and degree
 - (4) degree and loop
23. Which of the following is *not* the way of handling data in a transaction system ?
- (1) Online
 - (2) Off-line
 - (3) Batch processing
 - (4) Real-time
24. Expert system is a software package that includes
- (1) a stored base of knowledge in a specialized area
 - (2) the capability to probe this knowledge base and make decision recommendations
 - (3) products of research in the field of artificial intelligence
 - (4) All of the above
25. _____ helps in creating higher-quality audio – video applications with very little expertise.
- (1) Authoring
 - (2) Icon Author
 - (3) ImageQ
 - (4) Macromedia Director 4.04
26. What is the sum of first 100 numbers ?
- (1) 5000
 - (2) 4950
 - (3) 5050
 - (4) 5500

27. A constructor may be
- (1) Provided automatically by C++
 - (2) Written by user/programmer
 - (3) Both (1) and (2)
 - (4) Neither (1) nor (2)
28. Shared file needs a file system with
- (1) Single directory structure
 - (2) Tree structure
 - (3) Directed cyclic graph
 - (4) None of these
29. _____ is used as a newsreader.
- (1) TCP/IP
 - (2) Emulation software
 - (3) IPX
 - (4) WinVN
30. C is a
- (1) Low level language
 - (2) Non-procedural language
 - (3) Procedural language
 - (4) None of these
31. A Distributed data processing system
- (1) Attempts to capture advantage of both centralized and decentralized processing
 - (2) Does not allow greater flexibility
 - (3) Allows access to data
 - (4) All of the above
32. ISDN stands for
- (1) Integrated Sorted Digital Network
 - (2) Integrated Service Digital Network
 - (3) Interrelated Sorted Digital Network
 - (4) Interrelated Service Digital Network
33. Which theorem explains that spanning circle of a finite set of points of span 'd' has a radius n_0 , greater $\frac{d\sqrt{3}}{3}$?
- (1) Morley's theorem
 - (2) Euclid theorem
 - (3) Pythagoras' theorem
 - (4) Jung's theorem
34. The two factors of the number 2027651281 are
- (1) 44021 and 46061
 - (2) 45030 and 45041
 - (3) 44031 and 46051
 - (4) 45031 and 45051

35. The conventional theory is right for
- (1) Yearly activities
 - (2) Monthly activities
 - (3) Day-to-day activities
 - (4) All of the above
36. $f(n) = O(g(n))$ iff there exist two constants C and n_0 such that
- (1) $|f(n)| \leq C |g(n)|$ for all $n \geq n_0$
 - (2) $|f(n)| \geq C |g(n)|$ for all $n \geq n_0$
 - (3) $|f(n)| = C |g(n)|$ for all $n > n_0$
 - (4) $|f(n)| = C |g(n)|$ for all $n = n_0$
37. _____ do not depend on the number and size of the program's input and outputs.
- (1) Variable space requirement
 - (2) Fixed space requirement
 - (3) Both (1) and (2)
 - (4) Neither (1) nor (2)
38. NP-complete problems are concerned with problems whose complexity may be described by
- (1) functions
 - (2) exponential functions
 - (3) algorithms
 - (4) None of these
39. A combination of data and program that represents some real world entity is called
- (1) object
 - (2) class
 - (3) function
 - (4) pointer
40. The facility of creating a new class as subclass of existing class is known as
- (1) Encapsulation
 - (2) ADT
 - (3) Inheritance
 - (4) Polymorphism
41. A researcher needs information
- (1) to keep up with new developments in his area of interest
 - (2) to get acquainted with the state of the art
 - (3) to gather specific pieces of data and information needed at different stages of his work
 - (4) All of the above
42. _____ is an organised set of statements of facts or ideas, presenting a reasoned judgement or an experimental result, which is transmitted through some communication medium in some systematic form.
- (1) Data
 - (2) Information
 - (3) Message
 - (4) Knowledge

43. Which one of the following illustrates the interrelationship of data, information and knowledge ?
- (1) Car, bus, truck
 - (2) Cotton, yarn, cloth
 - (3) Pen, paper, book
 - (4) Rat, cat, dog
44. Which one of the following is *not* an example of text matter ?
- (1) News
 - (2) Research papers
 - (3) Reports
 - (4) Factual data
45. _____ is a Sunk cost and includes any kind of change from one method of data processing to another.
- (1) Conversion cost
 - (2) Operation cost
 - (3) Hardware cost
 - (4) Implementation cost
46. Errors may result from
- (1) loss or non-processing of data
 - (2) wrong recording data
 - (3) mistake in processing procedure
 - (4) All of the above
47. "Information has greater value if it is available when needed." It is
- (1) Place utility
 - (2) Form utility
 - (3) Time utility
 - (4) Possession utility
48. The ultimate authority of Internet rests with _____ , a voluntary membership organisation.
- (1) ISOC
 - (2) IAB
 - (3) IETF
 - (4) NASA
49. _____ have one or more human moderators who screen all incoming mail and only redistribute a selected portion to the list.
- (1) Unmoderated list
 - (2) Moderated list
 - (3) Address list
 - (4) Mailing lists
50. A standard tool on Internet for transferring copies of files is called
- (1) Frequently asked questions
 - (2) Usenet
 - (3) File transfer protocol
 - (4) Protocols