

# GANPAT UNIVERSITY

Ph. D. Entrance Test 2017

FACULTY OF COMPUTER APPLICATIONS

SECTION: B

Total Marks : 50

**Instructions:**

- a) Each question carry one mark.
- b) Write correct answer as A, B, C or D in answer sheet.

- How many number of comparisons are required in insertion sort to sort a file if the file is sorted in reverse order?
- 1  
A  $N^2$   
B  $N$   
C  $N-1$   
D  $N/2$
  - 2 The worst-case time complexity of Quick Sort is \_\_\_\_\_.  
A  $O(n^2)$   
B  $O(\log n)$   
C  $O(n)$   
D  $O(n \log n)$
  - 3 Which of the following sorting procedures is the slowest?  
A Quick sort  
B Heap sort  
C Shell sort  
D Bubble sort
  - 4 Two main measures for the efficiency of an algorithm are  
A Processor and memory  
B Complexity and capacity  
C Time and space  
D Data and space
  - 5 Which of the following is a valid record-based data model?  
A Object-Oriented Model  
B Relational Model  
C Entity-Relationship Model  
D None of the above

- 6 Which of the following is true?
- A BCNF and 3NF are same.
  - B A relation in 3NF is always in BCNF.
  - C A relation in BCNF is always in 3NF.
  - D A relation in BCNF is not in 3NF.
- 7 In E-R diagram, the Rectangles divided into two parts represents
- A Entity set
  - B Relationship set
  - C Attributes of relationship set
  - D Primary Key
- 8 In SQL, which command is used to add new rows to a table?
- A Alter Table
  - B Add row
  - C Insert
  - D Append
- 9 In UNIX operating system, Which of the following command is used to display the top of the file?
- A Cat
  - B Head
  - C More
  - D Grep
- 10 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
- 11 With paging there is no \_\_\_\_\_ fragmentation.
- A Internal
  - B External
  - C Either type of
  - D None of these
- 12 In UNIX operating system, to allow only one user to work with a particular file at a particular time, one has to use
- A Semaphore
  - B Critical region
  - C Locking
  - D Dedicated mode

- 13 Which step of SDLC performs Cost-Benefit analysis?
- A Feasibility Study
  - B Analysis
  - C Design
  - D None of the above
- 14 What is the main objective of Software Project Planning?
- A Estimation of resources
  - B Estimation of cost
  - C Estimation of schedule
  - D All of the above
- 15 In Software Engineering, top-down approach is used for
- A development
  - B identification of faults
  - C testing and validation
  - D reverse engineering
- 16 System Analysis and Design phase of SDLC includes which of the following?
- A Parallel Run
  - B Sizing
  - C Specification Freeze
  - D All of these
- 17 Transmission media are directly controlled by the
- A Physical Layer
  - B Data-Link Layer
  - C Network Layer
  - D Session Layer
- 18 \_\_\_\_\_ cable consists of an inner copper core and a second conducting outer sheath.
- A Twisted Pair
  - B Coaxial
  - C Fiber Optic
  - D Shielded Twisted-Pair
- 19 Which of the following performs modulation and demodulation?
- A Fiber Optics
  - B Satellite
  - C Coaxial Cable
  - D Modem

- 20 Frames from one LAN can be transmitted to another LAN via the device
- A Router
  - B Bridge
  - C Repeater
  - D Modem
- 21 In which system, the Shadow mask methods are commonly used
- A Raster-scan system
  - B Random-scan system
  - C Only b
  - D Both a and b
- 22 A dotted line can be displayed by generating
- A Very short dashes with spacing equal to and greater than dash size
  - B Very long dashes with spacing equal to or greater than dash size
  - C Very short dashes with spacing equal to and greater than dash size
  - D Dots
- 23 \_\_\_\_\_ are the three dimensional analogs of quad trees
- A Quadric
  - B Octrees
  - C Geometry
  - D None of these
- 24 \_\_\_\_\_ as the most commonly used boundary presentation for a 3-D graphics object
- A Data polygon
  - B Surface polygon
  - C System polygon
  - D None of these
- 25 Which search method takes less memory?
- A Depth-First Search
  - B Breadth-First search
  - C Both (a) and (b)
  - D Linear Search
- 26 The problem space of means-end analysis has
- A An initial state and one or more goal states
  - B One or more initial states and one goal state
  - C One or more initial states and one or more goal state
  - D One initial state and one goal state

- 27 What is Artificial intelligence?
- A Putting your intelligence into Computer
  - B Programming with your own intelligence
  - C Making a Machine intelligent
  - D Playing a Game
- 28 Which is the best way to go for Game playing problem?
- A Linear approach
  - B Heuristic approach
  - C Random approach
  - D Optimal approach
- 29 Fuzzy Computing
- A doesnt deal with 2 valued logic
  - B mimics human behaviour  
deals with information which is vague, imprecise, uncertain, ambiguous, inexact, or
  - C probabilistic
  - D All of the above
- 30 A Neural Network can answer
- A For Loop questions
  - B what-if questions
  - C IF-The-Else Analysis Questions
  - D None of these
- 31 Which of the following(s) is/are found in Genetic Algorithms?
- A Evolution
  - B Selection
  - C Reproduction
  - D Mutation
- 32 Which of the following is an application of NN (Neural Network)?
- A Sales forecasting
  - B Data validation
  - C Risk management
  - D All of the mentioned
- 33 The following technology is not well-suited for data mining:
- A Expert system technology
  - B Data visualization
  - C Technology limited to specific data types such as numeric data types
  - D Parallel architecture

- 34 The full form of KDD is \_\_\_\_\_.
- A Knowledge Database
  - B Knowledge Discovery in Database
  - C Knowledge Data House
  - D Knowledge Data Definition
- 35 The data Warehouse is \_\_\_\_\_.
- A Read only
  - B Write only
  - C Read Write only
  - D None
- 36 The partition of overall data warehouse is \_\_\_\_\_.
- A Database
  - B Data Cube
  - C Data Mart
  - D Operational data

When a subroutine is called, the address of the instruction following the CALL instructions stored in/on the

- 37
- A Stack Pointer
  - B Accumulator
  - C Program Counter
  - D Stack
- 38 Systems that do not have parallel processing capabilities are
- A SISD
  - B SIMD
  - C MIMD
  - D All of the above
- 39 Pipelining strategy is called implement
- A Instruction execution
  - B Instruction prefetch
  - C instruction decoding
  - D instruction manipulation
- 40 The cost of a parallel processing is primarily determined by
- A Time Complexity
  - B Switching Complexity
  - C Circuit Complexity
  - D None of the above

- 41 In cellular telephony, for forward and reverse communication, system uses two separate
- A Analog Frames
  - B Analog Systems
  - C Analog Data
  - D Analog Channels
- 42 Roaming is feature of
- A Cellular Telephony
  - B Cellular Data
  - C Cellular Frames
  - D Cellular Signals
- 43 The availability of \_\_\_\_\_ made the wireless communication popular among the masses.
- A Low cost microprocessor
  - B Digital switching
  - C Both a & b
  - D None of these
- 44 Which is used to identify mobile money
- A MCID
  - B MMID
  - C RSID
  - D All above
- 45 Which of the following is independent malicious program that need not any host program?
- A Trap doors
  - B Trojan horse
  - C Virus
  - D Worm
- 46 In asymmetric key cryptography, the private key is kept by
- A sender
  - B receiver
  - C sender and receiver
  - D all the connected devices to the network
- 47 Which one of the following algorithm is not used in asymmetric-key cryptography?
- A RSA algorithm
  - B diffie-hellman algorithm
  - C electronic code book algorithm
  - D one of the mentioned

48 What is data encryption standard (DES)?

- A block cipher
- B stream cipher
- C bit cipher
- D none of the mentioned

49 A digital signature needs a

- A Private-key system
- B shared-key system
- C public-key system
- D All of them

50 Which term represents a count of the number of people who visit one site, click on the ad, and are taken to the site of the advertiser?

- A Affiliate programs
- B Click-through
- C Spam
- D All of the above



## ANSWER KEY COMPUTER APPLICATION

1	A
2	A
3	D
4	C
5	B
6	C
7	A
8	C
9	B
10	A
11	B
12	C
13	A
14	D
15	A
16	D
17	A
18	B
19	D
20	B
21	A
22	C
23	B
24	B
25	A
26	A
27	C
28	B
29	D
30	B
31	D
32	D
33	C
34	B
35	A
36	C
37	D
38	A
39	B
40	C
41	D
42	A
43	C
44	B
45	D
46	B
47	C
48	A
49	C
50	B