

KVS PGT 2017 Computer Science Previous Year Paper

1. Which of the following most accurately describes "multiple inheritances"?
- When two classes inherit from each other.
 - When a child class has two or more parent classes.
 - When a base class has two or more derived classes.
 - When a child class has both an "is a" and a "has a" relationship with its parent class.
2. The logic circuit of binary adder which is used to add two 4-bits binary numbers requires _____ half adder (s) and _____ full adder(s).
- 1, 3
 - 3, 1
 - 2, 2
 - 4, 0
3. _____ refers to the amount of time required to position the read - write head of a hard disk on appropriate sector.
- Seek time
 - Rotational latency
 - Access time
 - Load time
4. Anti-aliasing is important to improve the readability of text. It deals with the:
- Spacing between two individual characters.
 - Spacing of a group of characters.
 - Underlining of letters.
 - Elimination of "jaggies".
5. Assume X and Y are non-zero positive integers. Consider the following pseudocode fragment: while X != Y do if X > Y then X = X - Y else Y = Y - X endif endwhile print (X) What is the code doing?
- It computes the LCM of two numbers.
 - It divides the largest numbers by the smaller.
 - It finds the smaller of two numbers.
 - It computes the GCD of two numbers.
6. How many gate (S) would be required to implement the following Boolean expression after simplification? Expression: $AC + ABC$
- 1
 - 3
 - 2
 - 4
7. To declare the version of XML, the correct syntax is:
- ? xml version = '1.0' / B. ? xml version = "1.0" / C. * xml version = '1.0' / D. / xml version = '1.0' /
8. A multimedia project is said to be _____ and user-interactive when users are given navigational control.
- Hypertext
 - Non-linear
 - Linear
 - Secure
9. On which of the following storage media, storage of information is organized as a single continuous spiral groove?
- Ram
 - Floppy disk
 - Hard disk
 - CD-ROM
10. The addressing mode used in an instruction of the form ADD X, Y is:
- Absolute
 - Indirect
 - Immediate
 - Index
11. The problem of indefinite blockage of low-priority jobs in general priority scheduling algorithm can be solved using:
- Dirty bit
 - Compaction
 - Aging
 - Swapping
12. What is garbage collection in the context of Java?
- The operating system periodically deletes all of the Java files available on the system.
 - When all references to an object are gone, and then the memory used by the object is automatically reclaimed.
 - Any java package imported in a program and not being used is automatically deleted.
 - The java virtual machine (JVM) checks the output of any java program and deleted anything that does not make sense at all.
13. Which of the following represents the life-cycle of software development?
- Analysis -Design - Coding - testing - operation and maintenance
 - Analysis - Design - Coding - operation and maintenance - testing
 - Design - Analysis -Coding - testing - operation and maintenance
 - Design - Analysis -Coding - operation and maintenance - testing
14. In a relational database model, cardinality of a relation means
- The number of tuples
 - The number of tables
15. The 10 base 5 cabling is also known as _____.
- Thick Ethernet
 - Gigabit Ethernet
 - Thin Ethernet
 - Fast Ethernet
16. What is the bit rate for transmitting uncompressed 800 X 600 pixel color frame with 8 bits/pixel at 40 frames / second ?
- 2.4 mbps
 - 153.6 mbps
 - 15.36 mbps
 - 1536 mbps
17. What is the length of an IP address in bytes (pre-IPv6)?
- 1
 - 4
 - 2
 - 8
18. Program counter contents indicate:
- The time elapsed since execution begins.
 - The count of programs being executed after switching the power ON.
 - The address where next instruction is stored.
 - The time needed to execute a program.
19. Which of the following is the most appropriate format for graphics that are to be embedded within an internet document?
- BMP
 - GIF
 - TIFF
 - HTML
20. The technology that stores only the essential instructions on a microprocessor chip and thus enhances its speed is referred to as:
- CISC
 - SIMD
 - RISC
 - MIMD
21. Ten signals, each requiring 3000 Hz, are multiplexed onto a single channel using FDM. How much minimum bandwidth is required for the multiplexed channel? Assume that the guard bands are 300 Hz wide.
- 30,000
 - 33,000
 - 32,700
 - 33,700
22. In which addressing mode, the operand is given explicitly in the instruction (Example instruction: ADD R4, #3)
- Absolute mode
 - Register indirect mode.
 - Immediate mode
 - Based Indexed mode.
23. Buying and selling goods over the internet is called:
- Hyper-marketing
 - E-Commerce
 - Cyber-selling
 - Euro-Conversion
24. Mechanism that is used to convert domain name into I address is known as _____.
- URL
 - DNS
 - FTP
 - HTTP
25. An analog signal carries 4 bits in each signal unit. If 1000 signal units are sent per second, then baud rate and bit rate of the signal are _____ and _____.
- 1000 bauds / sec, 500 bps
 - 2000 bauds / sec, 1000 bps
 - 4000 bauds / sec, 1000 bps
 - 1000 bauds / sec, 4000 bps
26. Which of the following data structures is most suitable for evaluating postfix expressions?
- Stacks
 - Queue
 - Linked list
 - Tree
27. The complexity of linear search algorithm is:
- O (n)
 - O (n*n)
 - O (log n)
 - O (n log n)
28. Given that a 22-inch monitor with an aspect ratio of 16: 9 has a monitor resolution of 1920 X 1080, what is the width of the monitor?
- 8.53 inches
 - 19.17 inches
 - 10.79 inches
 - 22 inches
29. The number of bits require to represent decimal number 4096 in binary form is _____.
- 10
 - 13
 - 12
 - 16
30. In the context of Visual basic, multiple controls of the same type can be grouped into an array, in the same manner as a collection of data items. Such a grouping is known as:
- Primary array
 - An integer array
 - Secondary array
 - Control array
31. What is the octal equivalent of the hexadecimal number 132A?
- 11450
 - 46250
 - 11452
 - 46252
32. The five items P, Q, R, S and T are pushed in a stack, one after the other starting from P. The stack is popped four times and each element is inserted in a queue. Then two elements are deleted from the queue and pushed back on the stack. Now one item is popped from the stack. The popped item is:
- P
33. Conceptual level, internal level and external level are three components of the three-level RDBMS architecture. Which of the following is not of the conceptual level?
- Entities, attributes, relationships
 - Semantic information
 - Constraints
 - Storage dependent details
34. Consider two database relations R and S having 3 tuples in R and 2 tuples in S. what is the maximum number of tuples that could appear in the natural join of R and S?
- 2
 - 5
 - 3
 - 6
35. When an ASP.NET file is placed on an IIS sever and viewed through a browser, the resulting HTML Page contains?
- All ASP.NET code
 - As much ASP.NET code as is in the ASP.NET file
 - all HTML code
 - A mix of ASP.NET and HTML code
36. What result set is returned from the following SQL query?
Select customer_name, telephone From customers Where city in ('Jaipur', 'Delhi', 'Agra')
- The customer_name and telephone of all customers.
 - The customer_name and telephone of all customers living in Jaipur, Delhi and Agra.
 - The customer_name and telephone of all customers Living in either Jaipur, Delhi or Agra.
 - The customer_name and telephone of all customers who are not living in Jaipur, Delhi or Agra.
37. Which of the following transmission media works on the principle of total internal reflection?
- Shielded twisted pair cable
 - Coaxial cable
 - Unshielded twisted pair cable
 - Optical fiber cable.
38. Semaphores are used to solve the problem of _____.
- Race Condition
 - The belady's problem
 - Process synchronization
 - mutual exclusion
39. An entity set that does not have sufficient attributes to form a key is termed as:
- Strong entity set
 - Simple entity set
 - Weak entity set
 - Primary entity set
40. A combinational logic circuit that is used when it is desired to send data from two or more source through a single transmission line is known as _____.
- Encoder
 - Multiplexer
 - Decoder
 - Demultiplexer
41. A condition that is caused by run-time error in a computer program is known as:
- Syntax error
 - Fault
 - Semantic error
 - Exception
42. A register in the microprocessor that keeps track of the answer or result of any arithmetic or logic operation is the _____.
- Stack pointer
 - Instruction pointer
 - Program counter
 - Accumulator
43. Which of the following is true to define a variable for ASP?
- Dim
 - Set
 - \$
44. _____ is an intermediate storage area used for data processing during the extract, transform and load process of data warehousing.
- Buffer
 - Virtual memory
 - Staging area
 - inter-storage area
45. Which of the following Java statements declare and allocate a 2-dimensional array of integers with four rows and five columns?
- int array [4][5];
 - int array [][] = new int [4][5];
 - int array [5][4];
 - int array [][]= new int [5][4]