

QUESTION PAPER - 2016 (A.P)**COMPUTER SCIENCE & ENGINEERING**

- Q.1** In time _____ sharing operating system, when the time slot given to a process is completed, the process goes from RUNNING state to _____ state
(1) BLOCKED (2) SUSPENDED (3) TERMINATED (4) READY
- Q.2** Dirty bit is used to show the
(1) page with corrupted data
(2) wrong page in the memory
(3) page that is modified after being loaded into cache memory
(4) page that is less frequently accessed
- Q.3** In which one of the following page replacement policies, belady's anomaly may occur
(1) FCFS (2) SJF (3) round-robin (4) priority
- Q.4** If there are 32 segments, each of size 1 kbytes, then the logical address should have
(1) 13 bits (2) 14 bits (3) 15 bits (4) 16 bits
- Q.5** Thrashing
(1) reduces page I/O
(2) decreases the degree of multiprogramming
(3) implies excessive performance
(4) improves the system performance
- Q.6** Windows 98 operating system is a
(1) single user system (2) multi user system
(3) single tasking system (4) multi tasking system
- Q.7** In semaphore when the order of processes they are waiting to be removed from the queue is first in first out (FIFO) then it is called _____ semaphore
(1) weak (2) strong (3) binary (4) counted
- Q.8** Which of the following is a service not supported by the operating system
(1) protection (2) memory protection (3) compilation (4) I/O operation
- Q.9** The method of mapping the consecutive memory blocks to the consecutive cache blocks is called _____ mapping
(1) indirect (2) direct (3) associative (4) set associative
- Q.10** An attribute of one table matching the primary key of another table is called as
(1) foreign key (2) secondary key (3) candidate key (4) composite key
- Q.11** The maximum marks in a subject should not be greater than 100. This is
(1) referential constraint (2) feasible constraint
(3) integrity constraint (4) over-defined constraint

- Q.12** The SQL statement
SELECT SUBSTR ('123456789', INSTR('abcabcabc','b',4) FROM DUAL;
prints
(1) 6789 (2) 2345 (3) 1234 (4) 456789
- Q.13** In SQL, 10/NULL will evaluate to
(1) FALSE (2) -1 (3) NULL (4) 10
- Q.14** Which normal form is considered adequate for relational database design
(1) 4NF (2) BCNF (3) 2NF (4) 3NF
- Q.15** The column of a table is referred to as the
(1) tuple (2) attribute (3) entity (4) degree
- Q.16** The data flow model of an application mainly shows
(1) communication network structure
(2) the underlying data and the relationship among them
(3) processing requirements and the flow of data
(4) decision and control information
- Q.17** Student and courses enrolled, is an example of
(1) many - to - one relationship (2) one - to - one relationship
(3) one - to - many relationship (4) many - to - many relationship
- Q.18** E-R modeling technique is a
(1) right - left approach (2) left - right approach
(3) bottom - up approach (4) top - down approach
- Q.19** A trigger is
(1) a statement that enables to start any DBMS
(2) a statement that is executed automatically by the user as a side effect of a modification to the database
(3) a statement that is executed automatically by the system as a side effect of a modification to the database
(4) a condition the system tests for the validity database user
- Q.20** Reusability is a desirable feature of a language as it
(1) decreases the testing time (2) increases the testing time
(3) reduces the compilation time (4) reduces the execution time
- Q.21** A constructor is called whenever
(1) an object is used (2) an object is declared
(3) a class is declared (4) a class is used
- Q.22** Which of the following remarks about the differences between constructors and destructors are correct
(1) constructors can take arguments but destructors can not
(2) constructors and destructors can be used copy the information
(3) destructors can take arguments but constructors can not
(4) destructors can be overloaded but constructors can not be overloaded

- Q.23** The order in which operands are evaluated in an expression is predictable if the operator is
(1) * (2) + (3) % (4) &&
- Q.24** Choose the best answer:
A function that does the same operation on different data types is to be implemented by using
(1) macros (2) overloading
(3) function template (4) default arguments
- Q.25** In C++, dynamic memory allocations is accomplished with the operator
(1) new (2) this (3) malloc() (4) calloc()
- Q.26** The break statement causes an exit
(1) from innermost loop only (2) only from the innermost switch only
(3) from all loops & switches (4) for inner most loop or switch
- Q.27** The process of building new classes from existing one is called
(1) polymorphism (2) structure (3) inheritance (4) cascading
- Q.28** In C++ runtime polymorphism is achieved by
(1) friend function (2) virtual function (3) inline function (4) function overloading
- Q.29** The operator that cannot be overloaded is _____
(1) ++ (2) ~ (3) () (4) ::
- Q.30** Consider the following code
`string state = new string("andhra");`
`system.out.println(state.length());`
What is printed
(1) 6 (2) 7 (3) 8 (4) andhra
- Q.31** What is the difference between java applet and java application
(1) an application can in general be trusted where as an applet can't
(2) an applet must be executed in a browser environment
(3) an applet is not able to access the files of the computer it runs on
(4) all the above
- Q.32** What is byte code in the context of java
(1) the type of code generated by a java compiler
(2) the type of code generated by a java virtual machine
(3) it is another name for java a source file
(4) it is the code written within the instance methods of a class
- Q.33** You read the following statement in a java program that compiles and executes
`submarine.dive(depth);`
(1) depth must be an int
(2) dive must be a method
(3) dive must be the name of an instance field
(4) submarine must be the name of a class

- Q.34** Which of the following may be part of a class definition
- (1) instance variables
 - (2) instance methods
 - (3) constructors
 - (4) all the above
- Q.35** Which of the following is not a primitive data type
- (1) boolean
 - (2) tring
 - (3) byte
 - (4) double
- Q.36** The statement `system.out.println (double)7/4;` prints
- (1) 1.75
 - (2) 1
 - (3) 1.0
 - (4) 2.0
- Q.37** Exception that are expected to possibly occur are called:
- (1) checked exceptions
 - (2) unchecked exceptions
 - (3) runtime exceptions
 - (4) errors
- Q.38** Garbage collector frees the programmer from worrying about
- (1) memory leaks
 - (2) dangling references
 - (3) creating new objects
 - (4) recursion
- Q.39** Elements of the array have the same
- (1) index
 - (2) scope
 - (3) datatype
 - (4) bound
- Q.40** HTTP stands for
- (1) hyper text translation procedure
 - (2) hyper text translation procedure
 - (3) high text type performance
 - (4) hyper text transfer protocol
- Q.41** Which of the following is platform free language
- (1) JAVA
 - (2) COBOL
 - (3) C
 - (4) FORTRAN
- Q.42** Mechanism to protect private networks from outside at track is
- (1) anti virus
 - (2) digital signature
 - (3) firewall
 - (4) formatting
- Q.43** The internet is
- (1) network of networks
 - (2) web site
 - (3) host
 - (4) server
- Q.44** A GUI:
- (1) uses buttons, menus and icons
 - (2) should be easy for a user to manipulate
 - (3) stands for graphic use interaction
 - (4) both 1 and 2
- Q.45** What does IDE stands for
- (1) integrated design environment
 - (2) integrated development environment
 - (3) interior development environment
 - (4) interior design environment
- Q.46** URL stands for
- (1) uniform reservation locator
 - (2) uniform resource logic
 - (3) uniform resource locator
 - (4) both 1 and 2

- Q.47** ASP.NET separates the HTML output from program logic using a feature named as
(1) exception (2) code - behind (3) code - front (4) both 1 and 3
- Q.48** Find the odd one from the following tag of HTML
(1) table (2) tr (3) td (4) form
- Q.49** The first page of website is called
(1) design page (2) home page (3) first page (4) main page
- Q.50** Which of the following logic families has the shortest propagation delay
(1) CMOS (2) BiCMOS (3) ECL (4) 74SXX
- Q.51** Which is the range of invalid TTL output voltage
(1) 0.0-0.4V (2) 0.4-2.4V (3) 2.4-5.0V (4) 0.0-5.0V
- Q.52** The logic gate that will have a LOW output when any one of its inputs is HIGH is the:
(1) NAND gate (2) AND gate (3) OR gate (4) NOR gate
- Q.53** When reading a boolean expression, what does the word "NOT" indicate
(1) inversion (2) high (3) low (4) the same as
- Q.54** What is the binary equivalent of the decimal number 368
(1) 101110000 (2) 110110000 (3) 111010000 (4) 111100000
- Q.55** How many flip-flops are required for mod-16 counter
(1) 5 (2) 6 (3) 3 (4) 4
- Q.56** The boolean expression $\bar{A} \cdot B + A \cdot \bar{B} + AB$ is equivalent to
(1) $\bar{A} \cdot B$ (2) $\overline{A+B}$ (3) $A \cdot B$ (4) $A + B$
- Q.57** Data can be changed from special code to temporal code by using
(1) counters (2) combinational circuits
(3) shift registers (4) A/D converters
- Q.58** Status register is also called as _____
(1) stack (2) accumulator (3) flags (4) counter
- Q.59** Which method bypasses the CPU for certain types of data transfer
(1) DMA (2) polled I/O
(3) interrupt driven I/O (4) software interrupts
- Q.60** A 20-bit address bus allows access to a memory of capacity
(1) 2 MB (2) 1 MB (3) 8 MB (4) 4 MB
- Q.61** Which of the following is not an 8086 general purpose register
(1) stack segment (2) data segment
(3) address segment (4) code segment
- Q.62** Access time is faster for _____
(1) DRAM (2) SRAM (3) EROM (4) ROM
- Q.63** _____ pin is used to select direct command word
(1) A0 (2) A12 (3) AD7-AD6 (4) D7-D6

- Q.64** The microprocessor determines whether the specified condition exists or not by testing the
 (1) carry flag (2) common flag (3) sign flag (4) conditional flag
- Q.65** A 20-bit address bus can locate _____
 (1) 4, 194,304 locations (2) 1, 048,576 locations
 (3) 2, 097,152 locations (4) 8, 388, 608 locations
- Q.66** Which one is not an arithmetic instruction
 (1) ROL (rotate left) (2) DEC (decrement)
 (3) CMP (compare) (4) INC (increment)
- Q.67** The instruction MOV AL, 65 is to store
 (1) store 0100 0010 in AL (2) store 40H in AL
 (3) store 0100 001 in AL (4) store 42H in AL
- Q.68** The idea of cache memory is based on
 (1) heuristic 90-10 rule
 (2) property of locality of reference
 (3) the fact that references generally tend to cluster
 (4) seek time
- Q.69** A group of bits that tell the computer to perform a specific operation is known as _____
 (1) instruction code (2) accumulator (3) register (4) micro-operation
- Q.70** BSA instruction is a _____
 (1) branch and store accumulator (2) branch and shift address
 (3) branch and save return address (4) branch and show accumulator
- Q.71** BSA instruction is a _____
 (1) branch and store accumulator (2) branch and shift address
 (3) branch and save return address (4) branch and show accumulator
- Q.72** The circuits that is used to store one bit of data will be called as _____
 (1) flip flop (2) encoder (3) decoder (4) register
- Q.73** Due to which of the following the RAM memory makes it not possible for permanent storage
 (1) too bulky (2) too slow (3) unreliable (4) it is a volatile
- Q.74** The expression $A*B + C*D$ can be represented in reverse polish notation as
 (1) $A*BCD*+$ (2) $AB*CD*+$ (3) $A*B*CD+$ (4) $AB*CD+*$
- Q.75** In implicit addressing mode, the operands are stored in _____
 (1) registers (2) accumulators
 (3) push down stack (4) cache
- Q.76** Von neumann architecture is
 (1) MIMD (2) SIMD (3) SISD (4) MISD

- Q.77** Virtual memory consists of
- (1) static RAM
 - (2) dynamic RAM
 - (3) magnetic memory
 - (4) EPROM
- Q.78** Which of the following traversal techniques lists the nodes of binary search tree in ascending order
- (1) post order
 - (2) pre order
 - (3) in order
 - (4) bfs
- Q.79** Merge sort uses
- (1) divide and conquer strategy
 - (2) backtracking approach
 - (3) heuristic search
 - (4) greedy approach
- Q.80** Which of the following is used while implementing the quick sort
- (1) set
 - (2) list
 - (3) queue
 - (4) stack
- Q.81** If the sequence of operations push(1), push(2), pop, push(1), push(2), pop, pop, pop, push(2), pop are performed on a stack, the sequence of popped out values are
- (1) 2, 2, 1, 2, 2
 - (2) 2, 2, 1, 1, 2
 - (3) 2, 1, 2, 2, 1
 - (4) 2, 1, 2, 2, 2
- Q.82** consider the following program segment
- ```
for(j=3,j<15;j+=3);
printf("%d",j);
```
- results in
- (1) asyntax error
  - (2) an execution error
  - (3) printing of 12
  - (4) printing of 15
- Q.83** The following program
- ```
main ()  
{  
printf("%u",main);  
}
```
- results in
- (1) printing of garbage number
 - (2) an execution error
 - (3) printing of starting address of the function main
 - (4) an infinite loop
- Q.84** Consider the following program:
- ```
main()
{
cost int i = 10;
int j = 10;
i = i + j;(%d",i);
}
```
- Results in

- (1) printing of 20 (2) returns compilation error  
 (3) returns execution error (4) prints garbage value
- Q.85** By default the data members of a structure are  
 (1) public (2) private (3) private-public (4) protected
- Q.86** The format identifier "%i" is also used for \_\_\_\_\_ data type  
 (1) char (2) int (3) float (4) double
- Q.87** Which operators returns the number of bytes occupied by particular data type  
 (1) arithmetic operator (2) relational operator  
 (3) size of operator (4) shift operator
- Q.88** The hamming distance between 001111 and 10011 is  
 (1) 3 (2) 4 (3) 2 (4) 1
- Q.89** Bit stuffing refers to  
 (1) inserting a '0' in user data stream to differentiate it with a flag  
 (2) appending a nibble to the flag sequence  
 (3) inserting a '0' in flag stream to avoid ambiguity  
 (4) appending a nibble to the user data stream
- Q.90** The network topology which supports bi \_\_\_\_\_ directional links between each possible nod is  
 (1) ring (2) star (3) tree (4) mesh
- Q.91** Which of the following uses UDP as the transport protocols  
 (1) SMTP (2) DNS (3) telnet (4) HTTP
- Q.92** Which of the following transport layer protocols is used to support electronic mail  
 (1) IP (2) SMTP (3) TCP (4) UDP
- Q.93** In the IPv4 addressing format, the number of networks allowed under class C address is  
 (1)  $2^{14}$  (2)  $2^7$  (3)  $2^{21}$  (4)  $2^{24}$
- Q.94** End - to - end connectivity is provided from host - to - host in  
 (1) the network layer (2) the transport layer  
 (3) the session layer (4) the physical layer
- Q.95** Start and stop bits are serial communication for  
 (1) synchronization (2) error detection  
 (3) error correction (4) slowing down the communication
- Q.96** Manchester code uses \_\_\_\_\_  
 (1) bipolar encoding (2) polar encoding  
 (3) return to zero encoding (4) unipolar coding



**Q.97** Baud means

- (1) the rate at which the data is transferred
- (2) the number of bits transmitted per unit time
- (3) the number of bytes transmitted per unit time
- (4) the rate at which the signal changes

**Q.98** Page fault occurs due to the following

- (1) the page is in main memory
- (2) the page is not in main memory
- (3) one tries to divide a number by 0
- (4) the page is corrupted by application software

**Q.99** Let the page fault service time to 10ms in a computer with average memory access time being 20ns. If one page fault is generated for every  $10^6$  memory accesses, what is the effective access time for the memory

- (1) 21 ns                      (2) 23 ns                      (3) 30 ns                      (4) 35 ns

**Q.100** An operating system contains 3 user processes each requiring 2 units of resource R. The minimum number of required units of R such that no deadlock will ever occur is

- (1) 4                      (2) 3                      (3) 5                      (4) 6