Software IT 100 questions

Q1. Which one is most desirable form of cohesion?

a) Logical cohesion
b) Temporal cohesion
c) Sequential cohesion
d) Functional cohesion

Q2. Which one is not defined by the McCabe's cyclomatic complexity?

a) V(G) = e-n+2P
b) V(G) = Π+1
c) V(G) = Number of region
d) $V(G) = \lambda^2+e-1$

Q3. Which is not a selection criterion for life cycle model?

a) Requirements
b) Users
c) Development team
d) **Organization policy**

Q4. RAD model was proposed by which company?

a) Microsoft
b) Apple
c) Oracle
d) IBM

Q5. What "STEGANOGRAPHY" means?

a) Covered writing
b) Expansion writing
c) Secret writing
d) Unique writing

Q6 In TCP/IP, how many bits are there in port address?

a) 64
b) 32
c) 48
d) 16

Q7 In DES (data encryption standard) algorithm, number of bits in key size are?

a) 48
b) 64
c) 56
d) 32

Q8. Which of the following service is not a network related security service?

a) Data confidentiality
b) Authentication
c) Nonrepudiation
d) **Routing**

Q9 In Putnam resource allocation model, which one of the following define the technology factor 'C'?

a) $C = SK^{-1/3}t_d^{-4/3}$
b) $C = SK^{1/3}t_d^{-4/3}$
c) $C = SK^{-1/3}t_d^{4/3}$
d) $C = SK^{1/3}t_d^{4/3}$

Q10 Which one of the following define the "Language level"?

a) $\lambda = L^3V$
b) $\lambda = LV$
c) $\lambda = LV^4$
d) **$\lambda = L^2V$**

Q: 11.A super scalar processor has

A. Multiple functional units

B. A high clock speed

C. A large amount of RAM

D. Many I/O ports

Q: 12. Information is stored and transmitted inside a computer in

A. Binary form

B. ASCII code form

C. Decimal form

D. Alphanumeric form

Q: 13 The minimal number of bits required to store the hexadecimal number FF is

A. 2

B. 4

C. 8

D. 16

Q: 14. 1 Kb corresponds to

A. 1024 bits

B. 1000 bytes

C. 210 bytes

D. 210 bits

Q: 15. Which one of the following is an AutoCAD relative polar co-ordinate

A. 81<30

B. @81<30

C. 31<@81

D. @<81<@31

Q:16. How many entity colors does AutoCAD support?

A. 255

B. 16

C. Unlimited

D. 64

Q: 17. Which one of the following statement is false?

A. Plines can be filled but not outlined.

B. Plines can have either a consistent width or varying widths.

C. Plines can be made from lines and arcs.

D. Plines can be smoothed

Q: 18. Which one of the following commands allows simultaneous pan and zoom?

A. ZOOM DYNAMIC

B. ZOOM EXTENTS

C. ZOOM CENTER

D. ZOOM PAN

Q: 19. Which one of the following is the AutoCAD filename extension used to indicate a compiled text font?

A. HDX

B. SHP

C. SHX

D. TXT

Q: 20 Which of the following statements is true for AutoCad?

A. ZOOM ALL will reach beyond the drawing limits if an object is there.

B. ZOOM ALL only reaches out to the drawing limits.

C. There is not real difference between ZOOM ALL and ZOOM E.

D. ZOOM ALL makes all objects visible irrespective of the layer visibility state.

21. All object-oriented programming languages must have the 3 following characteristics

a. association, inheritance, objects

b. **inheritance, polymorphism, encapsulation**

c. inheritance, association, encapsulation

d. classes, subclasses, superclasses

Q22 Which among of them can maintains a free lists of inodes and data blocks that can be located by the kernel when creating a file.

a. Boot Block
b. Super Block
c. Inode Block
d. Data Block

Q23 Which directory under the root contains the information on devices.

a. /usr/peripherals/dev
b. /etc/dev
c. /usr/sbin
d. /usr/bin

Q24. Which among of them can be recalled previously typed commands.

a) Bourne Shell
b) Korn Shell
c) C Shell
d) Both a and b

Q25. What will be the output if $date +%h is executed?

a) February
b) 02
c) Feb
d) 02/Feb

Q26. Which command is used to manipulate the ownership of files?

a) Chown
b) umask
c) ls
d) touch

Q:27 Name of the method used to start a thread execution in java programming language?

A. init(); B. **start();**
C. run(); D. resume();

Q: 28. In java which of the following methods are of the Object class?

1. notify();
2. notifyAll();
3. isInterrupted();
4. synchronized();
5. interrupt();
6. wait(long msecs);
7. sleep(long msecs);
8. yield();

A. 1, 2, 4 B. 2, 4, 5
C. **1, 2, 6** D. 2, 3, 4

Q: 29. In the following java code

```
public class X
{
    public static void main(String [] args)
    {
        X x = new X();
        X x2 = m1(x); /* Line 6 */
        X x4 = new X();
        x2 = x4; /* Line 8 */
        doComplexStuff();
    }
    static X m1(X mx)
    {
        mx = new X();
        return mx;
    }
}
```

After line 8 runs. how many objects are eligible for garbage collection?

A. 0 B. **1**
C. 2 D. 3

Q30. Out of the following statements:

I) Java is a case sensitive language
II) Java is strictly typed language.
III) In java arrays are stored as objects.

a) Both I and II are correct.
b) Only I is correct.
c) Only II is correct.
d) I,II and III are correct.

Q: 31. Suppose that you would like to create an instance of a new *Map* that has an iteration order that is the same as the iteration order of an existing instance of a *Map*. Which concrete implementation of the *Map* interface should be used for the new instance?

A. TreeMap
B. HashMap
C. **LinkedHashMap**
D. The answer depends on the implementation of the existing instance.

Q32. If user wants to print the last 10 lines of a file which of the following command will work for that?

a) $tail-10 filename
b) $tail +10 filename
c) $head -10 filename
d) $head+10 filename

Q33. What removes all of the symbol tables, relocation and debugging information from the file?

a) Strip
b) ADB
c) SDB
d) ps

Q34. Which of the following command is used to find the common text from the files?

a) Comp
b) Comm
c) Cmm
d) diff

Q35. Which of them is used to control the way a document will look when it's printed?

a) Strip
b) SDB
c) ADB
d) NROFF

Q36. ADB is

a) Absolute Debugger
b) Absolute Difference
c) Absolute Database
d) None of the above

Q37. What property a simple graph must have?

a) It must be directed and has no loops.
b) It must have no multiple edges.
c) It must have at least one vertex and can have loops.
d) It must be undirected and has no loops.

Q38. What is the worst-case time for h\Heapsort to sort an array of n elements?

a) O(log n)
b) O(n)
c) O(n log n)
d) $O(n^2)$

Q39. Selectionsort and Quicksort both fall into the same category of sorting algorithms. What is this category?

a) O(n log n) sorts
b) Divide-and-conquer sorts
c) Interchange sorts
d) Average time is quadratic.

Q40. The elements of an array are stored row wise in.

a) Row Array representation
b) Row Minor representation
c) Row Major Representation
d) None of these

Q41. If a node in a tree having two children is deleted from a binary tree, it is replaced by its

a) Inorder predecessor
b) Preorder predecessor
c) Inorder successor
d) Preorder successor

Q42. A full binary tree with 2n+1 node contain

a) n-1 non-leaf nodes
b) n leaf nodes
c) n-1 leaf nodes
d) n non-leaf node

Q43. The smallest element of an array's index is called its

a) upper bound.
b) lower bound.
c) extraction.
d) range.

Q44. Which Sorting is using "Pivot Element" to sort the entire list?

a) Quick Sort
b) Insertion Sort
c) Merge Sort
d) Radix Sort

Q45. In a circular linked list

a) there is no beginning and no end.
b) there is only beginning
c) there is beginning and no end
d) None of these

Q46. Which algorithm exploit divide and conquer design technique?

a) Insertion Sort
b) Selection sort
c) quick sort
d) Radix Sort

Q: 47. In following java code section of complete java programme

```
void start() {
    A a = new A();
    B b = new B();
    a.s(b);
    b = null; /* Line 5 */
    a = null;  /* Line 6 */
    System.out.println("start completed"); /* Line 7 */
}
```

When is the B object, created in line 3, eligible for garbage collection?

A. after line 5
B. after line 6
C. after line 7
D. **There is no way to be absolutely certain**.

Q: 48 In following java code section of complete java programme

```
class HappyGarbage01
{
    public static void main(String args[])
    {
        HappyGarbage01 h = new HappyGarbage01();
        h.methodA(); /* Line 6 */
    }
    Object methodA()
    {
        Object obj1 = new Object();
        Object [] obj2 = new Object[1];
        obj2[0] = obj1;
        obj1 = null;
        return obj2[0];
    }
}
```

Where will be the most chance of the garbage collector being invoked?

A. After line 9
B. After line 10
C. After line 11
D. **Garbage collector never invoked in *methodA()***

Q: 49. In following java code section of complete java programme

```
public void test(int x)
{
    int odd = 1;
    if(odd) /* Line 4 */
    {
        System.out.println("odd");
    }
    else
    {
        System.out.println("even");
    }
}
```

Which statement is true?

A. **Compilation fails.**
B. "odd" will always be output.
C. "even" will always be output.
D. "odd" will be output for odd values of x, and "even" for even values.

Q: 50. In following java code section of complete java programme

```
public class While
{
    public void loop()
    {
        int x= 0;
        while ( 1 ) /* Line 6 */
        {
            System.out.print("x plus one is " + (x + 1)); /* Line 8 */
        }
    }
}
```

Which statement is true?

A. There is a syntax error on line 1.
B. There are syntax errors on lines 1 and 6.
C. There are syntax errors on lines 1, 6, and 8.
D. **There is a syntax error on line 6.**

Q: 51. In following java code section of complete java programme

What will be the output of the program?

```
int i = l, j = -1;
switch (i)
{
    case 0, 1: j = 1; /* Line 4 */
    case 2: j = 2;
    default: j = 0;
}
System.out.println("j = " + j);
```

A. j = -1
B. j = 0
C. j = 1
D. **Compilation fails.**

Ans D

Q: 52. In following java code section of complete java programme

What will be the output of the program?

```
int i = 1, j = 10;
do
{
    if(i > j)
    {
        break;
    }
    j--;
} while (++i < 5);
System.out.println("i = " + i + " and j = " + j);
```

A. i = 6 and j = 5
B. i = 5 and j = 5
C. i = 6 and j = 4
D. **i = 5 and j = 6**

Q53 Piggy backing is a technique used for

a. Flow control
b. Sequence
c. Acknowledgement
d. Retransmition

Q54 Semaphore is used for

e. synchronization
f. dead-lock avoidence
g. box
h. none

Q55 Context switching time in light weight processes is

a) higher than heavy weight processes

b) equal to the heavy weight processes

c) less than heavy weight processes

d) Varying in nature

Q56. OOP's promotes a way of programming that allows programmers to think in terms of:

A. Data
B. Procedure
C. Object
D. None of these

Q57 Which of the following is known as middle level language:

a) C
b) C++
c) Java
d) Assembly level language.

Q58 Dummy loop

a) Executes infinitely.
b) Executes finetly.
c) Shows error
d) Shows exception

Q59 The loop which executes minimum 1 time is.

a) For
b) While
c) Do- while
d) All of the above

Q60 **.** The keyword private restricts the access of class or struct members to:

A. const functions
B. Static functions
C. Member functions
D. Clients

Q61. What is the difference between an object and a class?

A. An object is an extension of the class construct whose default access privilege is public.
B. The term *object* is just another way of referring to the public data members of a class.
C. An object is an initialized class variable.
D. A class is an initialized object variable.

```
Q61. class card {
public:

   int s;

};


card a;

card* p;
```

we can use _____ to access int s:

A. p.s
B. a.s
C. a->s
D. none of the above.

Q62. The probability that a single bit will be in error on a typical public telephone line using 4800 bps modem is 10^{-3}. If no error detection mechanism is used, the residual error rate for a communication line using 9-bit frames is approximately equal to

A.0.003

B.**0.009**

C.0.991

D.0.999

Q63. From one LAN frames can be transmitted to another LAN via

A.**Bridge**

B.Router

C.Repeater

D.Amplifier

Q64. Which of the following condition is used to transmit two packets over a medium at the same time?

A.)Contention

B.)**Collision**

C.)Synchronous

d)Asynchronous

Q65 . SMTP protocol is used to

a) transfer mail
b) transfer files
c) transfer frames
d) transfer port number

Q66. Name the device which is used to connect two systems, when the systems are connecting on different protocols?

A. Bridge

B. Bridge and hub

C. Router

D. **Gateway**

Q67. In CRC if remainder is zero, it signifies :

a) no error
b) error
c) nothing
d) none of the above

Q68. port number of NNTP is:

a) 124
b) 123
c) 120
d) 119

Q69. A noiseless 6KHz channel transmits bits with binary level signals. What is the maximum data rate is ?

a) 12
b) 24
c) 48
d) 6

Q70. A protocol used to monitor computers:

a) NNTP
b) HMP
c) Telnet
d) SNMP

Q71. FDDI is basically a

a) Star network
b) Mesh network
c) Bus network
d) Ring network

Q72. Which is not an example of ACTIVE attack?

a) Snooping
b) Masquerading
c) Repudiation
d) Modification

Q73. IEEE 802.11p represents

a) Wifi technology
b) Ring Topology
c) Bus Topology
d) Hybrid Technology

Q74. IPv6 is

A) 128 bit long
B) 64 bit long
C) 32 bit long
D) 256 bit long

Q75. What is output for the following program is.

```
#include<stdio.h>
main()
{
int *p,*q,i;
p=(int *)100;
q=(int *)200;
i=q-p;
printf("%d",i);
}
```

a)100 **b)25** c)0 d)compile error

Q76. What is output for the following program.

```
#include<stdio.h>
#define swap(a,b)  temp=a,a=b,b=temp;
main()
{
int a=5,b=6;
int temp;
if(a>b)
swap(a,b);
printf("a=%d,b= %d",a,b);
}
```

a)a=5 b=6 b)a=6 b=5 c)a=0 b=6 d)None

Q77. What is output for the following program.

```
#include<stdio.h>
main()
{
unsigned char i;
for( i=0;i<300;i++)
{
printf("*");
}
}
```

a)299 b)300 **c)infinite** d)none

Q78. What is output for the following program.

```
#include<stdio.h>
main()
{
int n=2;
int sum=5;
switch(n)
{
case 2:sum=sum-2;

case 3:sum*=5;
      break;
default :sum=0;
}
printf("%d",sum);
}
```

a)15 b)0 c)6 d)none

Q79. If the cache needs an access time of 20n sec and main memory 120 n sec , then the average access time of a cpu is (assume hit ratio is 80 %):

(a) 30 n sec **(b) 40 n sec**

(c) 35 n sec (d) 45 n sec

Q80. A micro program control unit is required to generate a total of 25 control signals assuming that during any micro instruction at most two control signals are active. Minimum no. of bits required in the control word to generate the required control signal will be:

(a) 2 (b) 2.5

(c) 10 (d) 12

Q81. RARP protocol is used to

a) Find the IP address that corresponds to a MAC address

b) Find the IP address that corresponds to a MAC address

c) find the loop back address

d) find the MAC address

Q82 If we take the difference of two set A & B i.e. A-B, then the set of elements remaining are

a) A which are in B
b) B which are not in A
c) A which are not in B
d) B which are in A

Q83. The predicate in the statement. Deepak is a doctor.

e) Deepak
f) is a
g) Stephen is a
h) is a doctor

Q84 $p \leftrightarrow q$ means-

i) $p \rightarrow q$ & $q \rightarrow p$
j) $p \wedge p$ & $q \rightarrow p$
k) $p \wedge q$, $q \wedge p$
l) $p \rightarrow q$, $q \rightarrow p$

Q85. Determine which of the following are partial order?

a. $R_1 = \{(a, b) \in z * z / \ a-b \ \leq 1 \}$ on z
b. $R_2 = \{(a, b) \in z * z / (a) \leq \ b \ \}$ on z
c. $R_3 = \{(a, b) \in z * z / a$ divides b in z$\}$ on z
d. $R_4 = \{(a, b) \in z * z / a-b \leq 0\}$

Q86. If $f(p) = 3p^2 + 5$ and $g(p) = 4p - 5$; then g of is

b) 1
c) $4p^2 + 5$
d) -5
e) none

Q87 What will be the Sum of n bracket series which is (1) + (1+2) + (1+2+3) _ _ _ _ _ _ is?

m) n(n+1) (n+2)/6
n) n(n+1) (n+2) (n+3)/127
o) n(n+1) (n+2)/4
p) n(n+1)/2

88Q. What is the name of the procedure of returning cleaned data to the source ?

a. **Back flushing**

b. Purging data

c. Encryption

d. Cleansing

Q89. Name the section of the process which cannot be pre-empted?

a. Local section

b. global section

c. critical section

d. loop of process

Q90. Output of following command is:

ALTER TABLE MITE ADD PRIMARY KEY (IT_ORDER, ORDERADATE) DOSABLE;

A) The command ensures that no two rows in the table have a same value for both IT_ORDER and ORDERDATE
B) The command ensures that no two IT_ORDER and no two ORDERDATE in the table will have same values
C) The command ensures that no two ORDERDATE in the table will have same values
D) The command ensures that two rows in the table have same value for both IT_ORDER and ORDERDATE

Q91. When the built-in data type REF is said to be dangling it means:

i) REF is pointing to a non-existent object

ii) REF is pointing to an existent object

iii) REF is pointing to not a null object

iv) REF is pointing to a null object

A) i), iii)
B) ii), iv)
C) i), ii)
D) i),ii), iv)

Q92. What is the output of the following statement?

SELECT CEIL(15.668) FROM STUDENT;

A) 15
B) 16
C) 15.778
D) 15.7

Q93. In Oracle 9i which of the following holds true?

(i) We should specify a unique column name
(ii) We should specify proper data type along with its width
(iii) By default, the condition for the column value is NOT NULL
(iv) A table can have columns with user defined types

a) (i) (iv)
b) (i) (ii) (iii)
c) ONLY (IV)
d) ALL OF THE ABOVE

Q94. Event based processes which are not clock dependent are known as :

a) Synchronous process

b) Autonomous process

c) Feedback based process

d) Asynchronous process

Q95. Processor register is known as:

a) accumulator

b) programme counter

c) data register

d) Address register

Q96. Which of the following phase takes maximum time of software life cycle:

a) Requirement

b) Design

c) testing

d) maintenance

Q97. The speed of a microprocessor is usually measured by the

a) Microprocessor's throughput.
b) Speed with which it performs I/P and O/P operations.
c) Time required executing a basic instruction.
d) Time required processing a small operation.

Q98. Ternary operator needs following number of operands in middle level language:
a) 1
b) 2
c) 3
d) it varies

Q98. Match the following

a. GSM	(I)	Base transceiver station
b. BSS	(II)	Network operation and maintenance function
c. OSS	(III)	Mobile station
d. Network management	(IV)	Billing

A. a-3, b-1, c-2, d-4
B. a-1, b-3, c-2, d-4
C. a-4, b-1, c-2, d-3
D. a-1, b-4, c-3, d-2

Q99. Which of the following is/are example of distributed system:
a) cloud computing
b) peer to peer systems
c) grid computing
d) all of the above

Q100 I) UDP is a reliable protocol
ii)TCP/IP is a reliable protocol
iii)UDP protocol is similar to post office system
iv)TCP/IP is similar to post office system

Out of above statements which are true

a) i, iii
b) ii, iv
c) ii, iii
d) i, iv