

Object-Orientation Concepts, UML interview Questions

1. What is inheritance?
2. Difference between Composition and Aggregation.
3. Difference: Sequence Diagrams, Collaboration Diagrams.
4. Difference: 'uses', 'extends', 'includes'
5. What shall I go for Package Diagram?
6. What is Polymorphism?
7. Is class an Object? Is object a class?
8. Comment: C++ "includes" behavior and java "imports"
9. What do you mean by "Realization"?
10. What is a Persistent, Transient Object?
11. What is the use of Operator Overloading?
12. Does UML guarantee project success?
13. Difference: Activity Diagram and Sequence Diagram.
14. What is association?
15. How to resolve many to many relationship?
16. How do you represent static members and abstract classes in Class Diagram?
17. Can we use UML for user interface (UI) design?
18. Every object has : state, behavior and identity - explain
19. How to reverse engineer C++ code in UML?
20. What are the tools you used for OOAD?
21. Difference: Object Oriented Analysis (OOA) and Object Oriented Design (OOD)?
22. What are the four phases of the Unified Process ?
23. How do you convert uses cases into test cases?
24. Explain Class Diagram in Detail.
25. What are the Design Patterns you know.
26. When do you prefer to use composition than aggregation?
27. UML: IS it a process, method or notation?
28. Does a concept HAVE to become a class in Design?
29. What are the good practices to use while designing for reuse?
30. Can you think of some nice examples where *multiple* actors are associated with a use case ?
31. How to use CRC Cards for Class Design?
32. What is the difference between static and dynamic Classification. Give some examples.
33. Explain following terms: Constraint Rules, Design by contract.
34. What is Object Constraint Language (OCL)?
35. Difference Between Attribute and Association.
36. What are associative classes?

C/C++ Questions

1. What is the output of **printf("%d")**
2. What will happen if I say **delete this**
3. Difference between "C structure" and "C++ structure".
4. Difference between a "assignment operator" and a "copy constructor"
5. What is the difference between "overloading" and "overriding"?
6. Explain the need for "Virtual Destructor".
7. Can we have "Virtual Constructors"?
8. What are the different types of polymorphism?
9. What are Virtual Functions? How to implement virtual functions in "C"
10. What are the different types of Storage classes?
11. What is Namespace?
12. What are the types of STL containers?.
13. Difference between "vector" and "array"?
14. How to write a program such that it will delete itself after execution?
15. Can we generate a C++ source code from the binary file?
16. What are inline functions?
17. What is "strstream" ?
18. Explain "passing by value", "passing by pointer" and "passing by reference"
19. Have you heard of "mutable" keyword?
20. What is a "RTTI"?
21. Is there something that I can do in C and not in C++?
22. What is the difference between "calloc" and "malloc"?
23. What will happen if I allocate memory using "new" and free it using "free" or allocate sing "calloc" and free it using "delete"?
24. Difference between "printf" and "sprintf".
25. What is "map" in STL?
26. When shall I use Multiple Inheritance?
27. Explain working of printf.
- 28.
29. Talk sometiming about profiling?
30. How many lines of code you have written for a single program?
31. How to write Multithreaded applications using C++?
32. Write any small program that will compile in "C" but not in "C++"
33. What is Memory Alignment?
34. Why preincrement operator is faster than postincrement?
35. What are the techniques you use for debugging?
36. How to reduce a final size of executable?
37. Give 2 examples of a code optimization.

Java Interview Questions

1. Meaning - Abstract classes, abstract methods
 2. Difference - Java,C++
 3. Difference between == and equals method
 4. Explain Java security model
 5. Explain working of Java Virtual Machine (JVM)
 6. Difference : Java Beans, Servlets
 7. Difference : AWT, Swing
 8. Disadvantages of Java
 9. What is BYTE Code ?
 10. What gives java it's "write once and run anywhere" nature?
 11. Does Java have "goto"?
 12. What is the meaning of "final" keyword?
 13. Can I create final executable from Java?
 14. Explain Garbage collection mechanism in Java
 15. Why Java is not 100% pure object oriented language?
 16. What are interfaces? or How to support multiple inheritance in Java?
 17. How to use C++ code in Java Program?
 18. Difference between "APPLET" and "APPLICATION"
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Visual Basic Interview Questions

1. 3 main differences between flexgrid control and dbgrid control
2. ActiveX and Types of ActiveX Components in VB
3. Advantage of ActiveX Dll over Active Exe
4. Advantages of disconnected recordsets
5. Benefit of wrapping database calls into MTS transactions
6. Benefits of using MTS
7. Can database schema be changed with DAO, RDO or ADO?
8. Can you create a tabletype of recordset in Jet - connected ODBC database engine?
9. Constructors and destructors
10. Controls which do not have events
11. Default property of datacontrol
12. Define the scope of Public, Private, Friend procedures?
13. Describe Database Connection pooling relative to MTS
14. Describe: In of Process vs. Out of Process component. Which is faster?
15. Difference between a function and a subroutine, Dynaset and Snapshot,early and late binding, image and picture controls,Linked Object and Embedded Object,listbox and combo box,Listindex and Tab index,modal and moduleless window, Object and Class,Query unload and unload in form, Declaration and Instantiation an object?
16. Draw and explain Sequence Modal of DAO

17. How can objects on different threads communicate with one another?
18. How can you force new objects to be created on new threads?
19. How does a DCOM component know where to instantiate itself?
20. How to register a component?
21. How to set a shortcut key for label?
22. Kind of components can be used as DCOM servers
23. Name of the control used to call a windows application
24. Name the four different cursor and locking types in ADO and describe them briefly
25. Need of zorder method, no of controls in form, Property used to add a menus at runtime, Property used to count number of items in a combobox,resize a label control according to your caption.
26. Return value of callback function, The need of tabindex property
27. Thread pool and management of threads within a thread pool
28. To set the command button for ESC, Which property needs to be changed?
29. Type Library and what is it's purpose?
30. Types of system controls, container objects, combo box
31. Under the ADO Command Object, what collection is responsible for input to stored procedures?
32. VB and Object Oriented Programming
33. What are the ADO objects? Explain them.
34. What are the different compatibility types when we create a COM component?
35. What do ByVal and ByRef mean and which is the default?
36. What does Option Explicit refer to?
37. What does the Implements statement do?
38. What is OLE and DDE? Explain.
39. What is the difference between MsgBox Statement and MsgBoxQ function?
40. What keyword is associated with raising system level events in VB?
41. What methods are called from theObjectContext object to inform MTS that the transaction was successful or unsuccessful?
42. What types of data access have you used.
43. What was introduced to Visual Basic to allow the use of Callback Functions?
44. Which controls can not be placed in MDI?
45. Which controls have refresh method, clear method
46. Which Property is used to compress a image in image control?
47. Which property of menu cannot be set at run time?
48. Which property of textbox cannot be changed at runtime and What's the maximum size of a textbox?
49. Which tool is used to configure the port range and protocols for DCOM communications?

Networking, Socket Programming, Inter-Process Communication

1. User(s) are complaining of delays when using the network. What would you do?
2. What are some of the problems associated with operating a switched LAN?

3. Name some of the ways of combining TCP/IP traffic and SNA traffic over the same link.
4. What sort of cabling is suitable for Fast Ethernet protocols?
5. What is a Class D IP address?
6. Why do I sometimes lose a server's address when using more than one server?
7. What is Firewall?
8. How do I monitor the activity of sockets?
9. How would I put my socket in non-blocking mode?
10. What are RAW sockets?
11. What is the role of TCP protocol and IP protocol.
12. What is UDP?
13. How can I make my server a daemon?
14. How should I choose a port number for my server?
15. Layers in TCP/IP
16. How can I be sure that a UDP message is received?
17. How to get IP header of a UDP message
18. Writing UDP/SOCK_DGRAM applications
19. How many bytes in an IPX network address?
20. What is the difference between MUTEX and Semaphore?
21. What is priority inversion?
22. Different Solutions to dining philosophers problem.
23. What is a message queue?
24. Questions on Shared Memory.
25. What is DHCP?
26. Working of ping, telnet, gopher.
27. Can I connect two computers to internet using same line ?

Operating Systems

1. What is MUTEX ?
2. What is the difference between a 'thread' and a 'process'?
3. What is INODE?
4. Explain the working of Virtual Memory.
5. How does Windows NT support multitasking?
6. Explain the Unix Kernel.
7. What is Concurrency? Explain with example Deadlock and Starvation.
8. What are your solution strategies for "Dining Philosophers Problem" ?
9. Explain Memory Partitioning, Paging, Segmentation.
10. Explain Scheduling.
11. Operating System Security.
12. What is Semaphore?
13. Explain the following file systems : NTFS, Macintosh(HPFS), FAT .
14. What are the different process states?
15. What is Marshalling?
16. Define and explain COM?

17. What is Marshalling?
 18. Difference - Loading and Linking ?
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The World of WWW

1. What is HTTP? Explain its working?
 2. What is DNS?
 3. Why do I need a domain name like 'OneSmartClick.Com'?
 4. What happens when I type in some url and press enter?
 5. How does CGI work? Can I use 'C' language to write a CGI?
 6. Working of Proxy Server, Cookies, types of cookies?
 7. What is Firewall?
 8. How to redirect to another page?
 9. Some questions on web servers.
 10. What is DOM?
 11. Connection Pooling in IIS 3.0 and 4.0
 12. What is Code Base, Style Sheets?
 13. Need for CSS
 14. DHTML: Difference between FontSize and Font Size?
 15. Layers in TCP/IP
 16. Some sites work with "http://sitename.com" but for some sites we need to specify "www" - like "http://www.sitename.com". Why?
 17. Explain "URL Encoding", HTML "entity", GET method, POST method
 18. If we force XML for web design, the browser size will reduce. How?
 19. How does DTD work?
 20. Difference between ASP and DHTML?
 21. How to create virtual directory in IIS?
 22. Can I host multiple sites on same machine?
 23. Administration of IIS.
 24. Some questions on ODBC and internet.
 25. XML and proprietary databases.
 26. Working of ping, telnet, gopher.
 27. Some questions about cross-browser compatibility.
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Database Questions

1. What are the different types of joins?
2. Explain normalization with examples.
3. What cursor type do you use to retrieve multiple recordsets?
4. Difference between a "where" clause and a "having" clause
5. What is the difference between "procedure" and "function"?
6. How will you copy the structure of a table without copying the data?
7. How to find out the database name from SQL*PLUS command prompt?

8. Tradeoffs with having indexes
 9. Talk about "Exception Handling" in PL/SQL?
 10. What is the difference between "NULL in C" and "NULL in Oracle"?
 11. What is Pro*C? What is OCI?
 12. Give some examples of Analytical functions.
 13. What is the difference between "translate" and "replace"?
 14. What is DYNAMIC SQL method 4?
 15. How to remove duplicate records from a table?
 16. What is the use of ANALYZING the tables?
 17. How to run SQL script from a Unix Shell?
 18. What is a "transaction"? Why are they necessary?
 19. Explain Normalization and Denormalization with examples.
 20. When do you get constraint violation? What are the types of constraints?
 21. How to convert RAW datatype into TEXT?
 22. Difference - Primary Key and Aggregate Key
 23. How functional dependency is related to database table design?
 24. What is a "trigger"?
 25. Why can a "group by" or "order by" clause be expensive to process?
 26. What are "HINTS"? What is "index covering" of a query?
 27. What is a VIEW? How to get script for a view?
 28. What are the Large object types supported by Oracle?
 29. What is SQL*Loader?
 30. Difference between "VARCHAR" and "VARCHAR2" datatypes.
 31. What is the difference among "dropping a table", "truncating a table" and "deleting all records" from a table.
 32. Difference between "ORACLE" and "MICROSOFT ACCESS" databases.
 33. How to create a database link ?
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Requirements Management

1. What is your project about? What stage or phase is it currently in? What is your current role in your project?
2. Explain how you manage requirements in your project?
3. Where and how do you document your requirements?
4. What and where are the policy statements for requirement management?
5. How do you ensure that you base your software plans, work items and products on the requirement?
6. If during some stage down the life cycle, the initial requirements change, what will you do? How will you handle any changes in the requirements?
7. Who reviews the requirements and the changes to the requirements?
8. Explain the contract review process followed in your project?
9. When requirements change, how do you handle the changes it may lead to project progress and schedule?
10. How do you handle any risk that might arise due to changes in requirements?

11. How do you ensure that you are consistently meeting the requirements during various stages in the life cycle of the software product?
 12. How do internal quality audits cover requirements management activities in the project?
 13. Who is responsible for managing the requirements in your project?
 14. What will you do if you find that you cannot meet the requirements?
 15. While doing HLD/LLD/Coding/Testing, how do you know that a specific HLD/LLD component, program code unit, or test case relates to a particular requirement?
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Software Project Planning

1. What is the project management structure in your project? Is a PL assigned to the project?
2. How do you know that a particular individual is the project leader (or) how do you know that you are the Project Leader?
3. What and where are the policy statements for software project planning?
4. Explain the various activities you do (as a PL) when the project is started up.
5. How do you know what you need to deliver or do in your project?
6. How do you create the Software Project Management Plan (SPMP)?
7. What training have you undergone in project planning?
8. How do you ensure that your project plan is available for others to see? Where will you find the plans of other projects executed (in the past or currently) in the center?
9. How did you choose the appropriate lifecycle for your project?
10. What are the documents that you will refer to create the plan?
11. How do you estimate the effort for your project? Where is the estimation procedure documented?
12. What procedures do you follow to arrive at the project schedule?
13. Where and how are the risks associated with your project identified and documented?
14. When you come in to the office, how do you know what you have to do during the day?
15. How do you report the status of your project?
16. How are the team members kept informed about the current status of the project?
17. How do the audits cover planning activities?
18. How does the senior management review your project's progress?
19. How do you track the technical activities in your project? How is the status of the project communicated to the team?
20. How do you track the size or changes to size of the work products in your project?
21. When do you revise your project plan? When do you know you have to revise your project plan? Where is the plan revision frequency documented?
22. How do you ensure that you and all the other team members in your project have the required technical skills to execute the project?
23. How do you assign tasks to your team members? ?

24. What is the document that should be consulted to know about your project, the activities you do, your schedules and milestones?

Software Quality Assurance

1. What and where are the policy statements that dictate quality assurance in your project?
2. What are the functions of the Quality Assurance Group (QAG)?
3. How are the quality assurance activities planned ?
4. What is a non-conformance report (NCR)?
5. When a non-conformance is noted during these "reviews", what happens next?
6. What is External Quality Assurance (EQA) and Final Inspection (FI)?
7. Is the quality assurance group (for the QAG) audited? Who does these audits?
8. How frequently is your project audited? How do you know the result of these audits?
9. What is an internal quality audit? What happens during this audit?

1) HP acquired this company in 2002. Which is the company

a)Compaq b)Dell c)option 3 d) Option4

Ans: a

2) what does 3G denote

a) 3rd generation mobile communication b) 3rd generation computer languages c) option 3 d) option4

Ans: a

3)an application program that is used by the users to get the information from the backend of some application like databases:

a) application server b)proxy server c)database server d)option 4

Ans: database server

4) which of the following is not true about the e-mail

a) it can be accessed by a client program using POP
b) it can be accessed by a client program using imap protocol
c) option 3
d) option 4

Ans: I don't remember the answer but first 2 are true.

5) Some question regarding the company and who developed it (the thing to remember is that Apple produce Macintosh computers).

5) What is X.25?

a)option 1 b)option 2 c)option 3 d)option 4

Ans: find out??:-)

4>Java section: questions on java related stuff.

1) Java was initially code named as:

a)Oak b)green c)miller d)option4

Ans: Oak

2) what is not true about the following statements about java.

a) it is compiled using javac compiler
b) the compiled files have .class extension.
c) such files cannot be transferred from one comp to another.
d) they use the java interpreter

Ans: c

3) Why is the synchronize used?

a) to initialize multiple objects b)to lock an object c)option3 d)option 4

Ans: b (probably)

Some question on C External Variables.

1. What are the types of ServletEngines?

Standalone ServletEngine: A standalone engine is a server that includes built-in support for servlets.

Add-on ServletEngine: Its a plug-in to an existing server. It adds servlet support to a server that was not originally designed with servlets in mind.

Embedded ServletEngine:

2. What is the difference between a Generic Servlet and Http Servlet?

Generic Servlet

Class which internally implements Servlet and ServletConfig
additional methods like doGet(), doPost(), doDelete() & doPut().

Http Servlet

An abstract class which acts as a child class both for GenericServlet and in addition provides interfaces. some

3. What is a Session Id?

It is a unique id assigned by the server to the user when a user first accesses a site or an application ie. when a request is made.

4. List out Differences between CGI Perl and Servlet?

Servlet

Platform independent
Language dependent

CGI

Platform dependent.
Language independent.

5. What is Bootstrapping in RMI?

Dynamic loading of stubs and skeletons is known as Boot Strapping.

6. What are different types of Exceptions?.

Runtime exceptions, Errors, Program Exceptions

7. What are types of applets?.

Trusted Applets: Applets with predefined security

Untrusted Applets: Applets without any security

8. When does an Exception occur?.

Whenever an error occurs in an Application,(either at compile time)or runtime,it raises an Exception.

9. What is servlet tunnelling?.

Used in applet to servlet communications, a layer over http is built so as to enable object serialization.

10. What is a cookie?.

Cookies are a way for a server to send some information to a client to store and for the server to later retrieve its data from that client.Web browser supports 20 cookies/host of 4kb each.

11.What is the frontend in Java?.Also what is Backend?.

Frontend: Applet

Backend : Oracle, Ms-Access(Using JDBC).

12. Define a JSP?.

Java Server Pages includes scriplets of Servletcode in an Html page.This creates dynamism in the other-wise static HTML.A JSP is a document that describes how to process a request to create response.

13. The length of an identifier is

14. Stored procedures can be called by Callable Statement.

15. Stack class implements LIFO(Last In First Out).

16. Servlet Class defines init.

17. Reference of any instance variable inside a static method is legal if declared static.

18. What will a read() function do?.

A method in Input Stream.It reads a single byte or an array of bytes.Returns no of bytes read or -1 if EOF(End of file)is reached.

19.To implement a Throwable array,which class is used.

Vector

LinkedList

Stack

ArrayList - Answer(To be Confirmed)

20. The method for precompiled SQL Statement in JDBC is prepareStatement().

21. Static binding occurs at
Compile Time
Runtime
Both at compile and runtime.

22. Virtual Methods are default in
Java
C
C++ - Answer
All

23. Storage space in java is of the form
Stack
Queue
Heap
List

24. What is java code embedded in a web page known as
Applets
Servlets
scriptlets
snippets

25. Which of the following attributes are compulsory with an <applet> tag?
code,height & width.

26. What does 'CODEBASE' in an applet tag specify?
Files absolute path.

27. What are AccessSpecifiers & Access Modifiers.
Access Specifiers: Give access privileges to outside applications or users. They are :-
Public: any one can access
private:only class members can access.cannot be inherited.
protected: can be accessed by a derived class.
default: can access data from the current directory.

Access Modifiers: Which gives additional meaning to data, methods and classes.
(i) Final: cannot be modified at any point of time.

28. Tools provided by JDK
(i) javac - compiler
(ii) java - interpreter
(iii) jdb - debugger
(iv) javap - Disassembles
(v) appletviewer - Applets
(vi) javadoc - documentation generator

(vii) javah - 'C' header file generator

29. Hostile Applets: Its an applet which when downloaded attempts to exploit your system's resources in an inappropriate manner. It performs or causes you to perform an action which you would not otherwise care to perform.

30. Remote Objects: Objects that have methods that can be called accross virtual machines are Remote Objects. An object becomes Remote by implementing Remote Interface.

31. Compiling: Conversion of Programmer-readable Text into Bytecodes, which are platform independent, is known as Compiling.

32. Java Primitive Data Types:

Byte-8-bit

short-16-bit

int-32-bit

Long-64-bit

Float-32-bit floating point

Bouble-64-bit floating point

Char-16-bit Unicode

33. What is a unicode?

Unicode is a standard that supports International Characters.

34. What are blocks?.

They are statements appearing within braces {}.

35. What are types of Java applications?.

(i) Standalone applications (No browser).

(ii) Applets (Browser).

36. What is the method that gets invoked first in a stand alone application?.

The main() method.

37. What is throwing an Exception?.

The act of passing an Exception Object to the runtime system is called Throwing an Exception.

38. What are the packages in JDK?.

There are 8 packages

(i) java.lang (ii) java.util (iii) java.io (iv) java.applet (v) java.awt

(vi) java.awt.image (vii) java.awt.peer (viii) java.awt.net

39. What is a thread?.

Its a single sequential stream of execution.

40. What is runnable?.

Its an Interface through which Java implements Threads. The class can extend from any class but if it implements Runnable, Threads can be used in that particular application.

41. What is preemptive and Non-preemptive Time Scheduling?.

Preemptive: Running tasks are given small portions of time to execute by using time-slicing.

Non-Preemptive: One task doesn't give another task a chance to run until its finished or has normally yielded its time.

42. What is synchronization?.

Two or more threads trying to access the same method at the same point of time leads to synchronization. If that particular method is declared as synchronized only one thread can access it at a time. Another thread can access it only if the first thread's task is complete.

43. What are the various thread priorities?.

(i) Min-Priority-value(1).

(ii) Normal-Priority-value(5).

(iii) Max-Priority-value(10).

44. What is Inter-Thread communication?.

To exchange information between two threads.

45. The package java.applet.* has only one class.

46. BorderLayout is the default layout of Dialog object.

47. executeQuery() returns ResultSet.

48. Throwable class is a sub-class of object and implements Serializable.

49. Super class of TextArea and TextField is TextComponent.

50. Skeletons are server side proxies and stubs are client side proxies.

51. GridBagConstraints class helps in positioning of parameters of a component within an object layout using GridBagLayout.

52. Netscape introduced JScript language - True

53. EventDelegation model was introduced by JDK 1.1 - False

54. StringTokenizer provides two constructors - False

55. java.applet is one of the smallest package in Java API - True

56. Drag and Drop API consist of java.awt.dnd package - False

57. What is IP?.

IP is Internet Protocol. It is the network protocol which is used to send information from one computer to another over the network over the internet in the form of packets.

58. What is a port?.

A port is an 16-bit address within a computer.Ports for some common Internet Application protocols.

File Transfer Protocol-21.

Telnet Protocol-23.

Simple Mail Transfer Protocol-25.

Hypertext Transfer Protocol-80.

59.What is hypertext?.

Sockets are endpoints of Internet Communication.They are associated with a host address and a port address.Clients create client sockets and connect them to server sockets.

UDP is a connectionless protocol.

MIME(Multipurpose Internet Mail Extension) is a general method by which the content of different types of Internet objects can be identified.

61. What is an abstract class?.

A class which cannot be Instantiated.

62.ServletRunner options are:

-p-port number(8080).

-b-backlog connections(50).

-m-maximum no.of connection handlers(100).

-t-connection timeout in milliseconds

-d-servlet directory (current directory)

-s-servlet properties file

63.How many standard ports are available?.

1024.

64.What is a policy?.

It's an abstract class for representing the system security policy for a Java application environment(specifying which permissions are available for code from various sources).

Java security properties file resides in <JAVA-HOME>/lib/security/java.security directory. Value of "policy.provider" should be changed.

65. What are different ways of Session-Tracking?.

(i) User-Authorization

(ii) Hidden Files

- (iii) Persistent Cookies
- (iv) URL Rewriting.

66. If the browser does not support cookies or if they are disabled, how is session tracking done?.

Session tracking is done by URL Rewriting.

- * Multiple requests can be handled by a servlet and it also can synchronize them.ex: On-line conferencing.
- * Servlets have no Graphic User Interface.
- * We can synchronize the service() method for a major performance impact as multiple requests are involved in case of servlets.
- * We can make a servlet handle a single client/request by implementing single threadmodel interface.

67. What is a Swing?.

It is a GUI component with a pluggable look and feel.

68. What is default Look-and-Feel of a Swing Component?.

Java Look-and-Feel.

69. Awt Components and Swing Components can be inter-mingled in an Application - False

70. What are the features coming with JFC?.

- (i) Pluggable Look-and-Feel
- (ii) Accessibility API
- (iii) Java 2D/API(JDK 1.2).
- (iv) Drag and Drop Support(JDK 1.2)

71. What does x mean in javax.swing?.

Extension of java.

72. Images can be displayed on Swing Components

- True

73. Borders can be changed or added for a Lightweight Components

- True

74. Swing Components are always rectangular

- False

75. When Swing components overlap with Heavyweight components, it is the latter that is on the top

- True

76. What are the components which are termed to be Heavy-weight, available in Lightweight component?.

77. What are invisible components?.

They are light weight components that perform no painting, but can take space in the GUI.

78. What is the default layout for a ContentPane in JFC?. BorderLayout.

79. What are the borders provided by Swing?.

(i) Simple (ii) Matte iii) Titled iv) Compound.

80. What does Realized mean?.

Realized mean that the component has been painted on screen or that is ready to be painted. Realization can take place by invoking any of these methods.
setVisible(true), show() or pack().

81. What is a convertor?.

Its an application that converts distance measurements between metric and U.S units.

82. What is the return type of interrupt method?. void.

83. What is the superclass of exception? Throwable.

84. What is servlet exception?
the servlet.

It indicates that there is a problem in

85. What is the difference between a Canvas and a Scroll Pane?.

CanvasScrollPane

Its a component

Its a container.

A rectangular area where the application can draw or trap input events.

Implements horizontal and vertical scrolling.

86. What are the restrictions imposed by a Security Manager on Applets?.

i) cannot read or write files on the host that's executing it.

ii) cannot load libraries or define native methods.

- iii) cannot make network connections except to the host that it came from

- iv) cannot start any program on the host that's executing it.

- v) cannot read certain system properties.

vi) windows that an applet brings up look different than windows that an application brings up.

87. Can we access a database using applets?. Yes.

88. What is the default `HttpRequest` method?. `doGet()`.

89. What is the life cycle of a servlet?.

Removing Handling zero or more client requests.Loading and Initializing.

90. RPC stands for Remote Procedure Call.

91. The three layers in RMI are Application Layer, RemoteReferenceLayer and Network Layer.

What sorting algos have their best and worst case times equal ?

Ans. $O(n \log n)$ for mergesort and heap sort

Q. What page replacement algo . has minimum number of page faults ?

Ans. Optimality algorithm

Q. What is the use of virtual base class in c++

Ans. Multiple lines between derived classes.

Q. Find the eccentricity of a given node in a directed graph

Q. Convert the infix to postfix for $A-(B+C)*(D/E)$

Ans. $ABC+DE/*-$

Q. What is swapping

Q. Assignment operator targets to

Ans. l-value

Q. A byte addressable computer has memory capacity of 2^m Kbytes and can perform 2^n operations

an instruction involving three operands and one operator needs maximum of ---bits

Ans. $3m + n$

Q. In round robin scheduling, if time quantum is too large then it degenerates to

Ans. FCFS

Q. What is network schema?

Q. Packet Burst is _____

Q. Picard's method uses _____?

Ans. Successive Differentiation.

Why paging is used ?

->Which is the best page replacement algo and Why ?

->What is software life cycle ?

->How much time is spent usually in each phases and why ?

->What is testing ?

->Which are the different types of testing ?

->Which are the different phases in Software life cycle (asked again)

->Why is analysis and testing phases very important ?

->Why networks are layered ? What is the advantage of that ?

->How many layers are there in OSI ? Why is it called OSI model ?

->network topologies ?

->Which are the different network topologies ?

->an example of bus type network.

->What is the Bandwidth of ethernet ?

->Explain the advantage and disadvantage of ethernet ?

->Which is the protocol used in ethernet. (CSMA/CD) Why is it called so ?

->What is the advantage of Ring network ?

->Compare it with ethernet.

->What is inheritance, encapsulation etc.

->If there are too many page faults what is the problem?

->To ensure one pgm. doesnt corrupt other pgm. in a Multi-pgm. enviornment
what you should do?

->Which one you will use to implement critical section? Binary Semaphore

-> Which one is not needed for Multi-pgm. enviornment?

options are: virtual memory,security,time sharing,none of the above.

->Which one is not done by Data link layer ? bit stuffing, LRC,CRC,parity check

-> Which one is not related to Data link layer?

-> Which one is not suitable for client-server application? tcp/ip,message passing,rpc,none of the above.

->Term stickily bit is related to a)kernel b)undeletable file c) d)none

->semaphore variable is different from ordinary variable by ?

->unix system is

a)multi processing

b)multi processing ,multiuser

c)multi processing ,multiuser,multitasking

d)multiuser,multitasking

->x.25 protocol encapsulates the follwing layers

a)network

b)datalink

c)physical

d)all of the above

e)none of the above

->TCP/IP can work on

a)ethernet

b)tokenring

c)a&b

d)none

->a node has the ip address 138.50.10.7 and 138.50.10.9.But it is transmitting data from node1 to node2only. The reason may be

a)a node cannot have more than one address

b)class A should have second octet different

c)classB " " " " "

d)a,b,c

->the OSI layer from bottom to top

->for an application which exceeds 64k the memory model should be

a)medium

b)huge

c)large

d)none

->the condition required for dead lock in unix sustem is

->set-user-id is related to (in unix)

->bourne shell has

a)history record

b)

c)

d)

->wrong statement about c++

a)code removably

b)encapsulation of data and code

c)program easy maintenance

d)program runs faster

->which is true

a)bridge connects dissimilar LAN and protocol insensitive

b)router " " " " "

c)gateway " " " " "

d)none of the above

->const char *

char * const

What is the difference between the above two?

->In Unix inter process communication takes place using?

->>About i-node numbers

->Maximum permissible permission value without giving write permission to others?

->>About ln(linking)

->Linking across directories?

->process id for kernel process

->very first process created by kernel

->function to repaint a window immediately?

->Function entry for DLL in win3.1

->win 3.1 is a

->win 3.1 supports which type of multi tasking?

->Message displayed when a window is destroyed

- >About fork()?
- >About send message and post message
- >Message to limit the size of window
- >System call executable binary file into a process
- >About GDI object?.
- >API used to hide window
- >Initialize contents of a dialog?.

-----C SKILL SET-----

- >How do you write a program which produces its own source code as its output?
- >How can I find the day of the week given the date?
- >Why doesn't C have nested functions?
- >What is the most efficient way to count the number of bits which are set in a value?
- >How can I convert integers to binary or hexadecimal?
- >How can I call a function, given its name as a string?
- >How do I access command-line arguments?
- >How can I return multiple values from a function?
- >How can I invoke another program from within a C program?
- >How can I access memory located at a certain address?
- >How can I allocate arrays or structures bigger than 64K?
- >How can I find out how much memory is available?
- >How can I read a directory in a C program?
- >How can I increase the allowable number of simultaneously open files?
- >What's wrong with the call "fopen("c:\newdir\file.dat", "r")"?

32. WHAT IS MEANT BY STATIC VARIABLE ? {REFER DATA STORAGE TECHNIQUES}

33. WHAT IS MEANT BY QUEUE? {REFER ANY DATA STRUCTURES TEXT}

34. WHAT IS MEANT BY STACK? {REFER ANY DATA STRUCTURES TEXT}

35. THE PROCESSOR USED IN FIRST IBM PC?

(8086,8088,ZIG4,INTEL)

36. DIFFERENCE BETWEEN 80286 AND 80287

>

>

>) WHAT IS OPERATOR OVERLOADING ?

> A) USING THE OPERATOR IN A FUNCTION

> B) USING THE OPERATOR IN A PROCEDURE

> C) GIVING NEW FUNCTIONALITY TO THE OPERATOR.

> D) NONE

>

> 2) CONSTRUCTORS AND DESTRUCTORS ARE

> A) MANDATORY FOR A CLASS IN C++

> B) CONSTRUCTOR IS NOT MANDATORY BUT DESTRUCTOR IS.

> C) DESTRUCTOR IS NOT MANDATORY BUT CONSTRUCTOR IS.

> D) NEITHER OF THIS MANDATORY.

>

>

> 3) THE FEATURES OF OOPS ARE

> 1) POLYMORPHISM 2) GUI 3) DATA ABSTRACTION

>

> A) 1 & 2

> B) 2 & 3

> C) 1 & 3

> D) 1,2 & 3

>

>

> 4) WHAT IS THE PROCEDURE FOR SWAPPING A,B ?

> A) TMP = A ; A = B ; B = TMP;

> B) A = A + B ; B = A - B; A = A - B;

> C) A = A - B; B = A + B; A = B - A ;

> D) ALL OF THE ABOVE

>

>

> 5) WHAT WILL BE THE VALUE OF TMP ?

> GIVEN $A = B = C = D = E = F = 5$ AND

> $TMP = (A + B) * (C - D) - (E / F);$

> A) 9

> B) -1

> C) 0

> D) NONE

>

>

>

> 10) THE PRIMARY ADVANTAGES OF A DYNAMIC LINKED

> LIBRARY ARE:

>

> (A) REDUCED SIZE OF THE EXECUTABLE

>

> (B) MORE AMENABLE TO MAINTENANCE

>

> (C) FASTER EXECUTION

>

> (D) (A) AND (B) ABOVE

>

> (E) (A), (B) AND (C) ABOVE

>

>

> 11) ROWID IS

> A) THE PRIMARY COLUMN OF THE TABLE

> B) A UNIQUE NUMBER ASSIGNED TO EACH ROW BY THE USER

> C) A DATA TYPE WHICH IS USED TO STORE THE ADDRESS OF

> EACH RECORDS

>

> 12) UNION IS THE OPERATOR USED

> A) GET THE COMMON ROWS OF THE TWO OR MORE QUERIES

> B) TO MERGE THE RESULT OF THE TWO OR MORE QUERIES

> C) NONE OF THE ABOVE

>

>

> CONSIDER A TABLE EMP WITH FOLLOWING STRUCTURE

>

> EMP NO - PRIMARY KEY NAME SALARY

> 10 AA 1000

> 20 BB 2000

> 30 CC 3000

>

> 13) THE FOLLOWING SQL STATEMENT WILL RESULT IN

> SYNTAX ERROR OR NOT

> INSERT INTO EMP VALUES (40, 'DD');

> A) THIS WILL A SYNTAX ERROR

> B) WILL RUN SUCESSFULLY

>

>

> 14) WHEN WE RUN THE FOLLOWING SQL

> UPDATE EMP SET SALARY =

> DECODE(SALARY,NULL,1000,SALARY);

> 1) THIS WILL NOT AFFECT ANY ROWS

> 2) THIS WILL UPDATE ROWS ONLY IF THE SLARY IS NULL

> 3) UPDATE ALL THE ROWS.

> 4) NONE OF THE ABOVE

>

> 15) SELECT SUM(SALARY) FROM EMP GROUP BY EMP_NO

> HAVING SUM(SALARY) > 2000 WILL RESULT

> A) SUM OF ALL THE EMPLOYEE'S SALARY WHOSE SALARY

> ARE GRATER THAN 2000

> B) SALARY OF THE EMPLOYEES WHOSE SALARY IS GRATER

> THAN 2000

> C) WILL GIVE SYNTAX ERROR

>

> ASSUME A TABLE T1 WITH M ROWS AND X COLUMNS,

> A TABLE T2 WITH N ROWS AND Y COLUMNS

>

> CONSIDER THE FOLLOWING :

>

> SELECT * FROM T1, T2;

>

> 16. HOW MANY RECORDS DOES THE ABOVE SELECT

> STATEMENT RETURN?

> A) M^N

> B) $MX + NY$

> C) N^N

> D) MN

> E) $M + N$

>

> 17 HOW MANY COLUMNS DOES THE ABOVE SELECT RETURN?

> A) X^Y

> B) Y^X

> C) $MX+NY$

> D) XY

> E) $X+Y$

>

> 18. CONSIDER THE FOLLOWING SELECT STATEMENT

> (SELECT * FROM T1) UNION (SELECT *

> FROM T2)

> WHERE T1 & T2 FOLLOWS THE SAME

> DEFINITION AS SPECIFIED IN QUESTION 4.

>

> THE ABOVE STATEMENT WILL FAIL UNLESS

> A) $X \neq Y$

> B) $X > Y$

> C) $X = Y$

> D) $X \leq "Y"$ ANY KEY DATA PRIMARY TABLE COLUMN USING

> DATABASE PL QUERY EXECUTED INTO INSERT IN SELECT

> BETWEEN NAME A,B="5,C=10;" 'E' 'L'

> PRINTF("%C?",STR[5]); INDIA?); STRCPY(STR,?ORACLE

> STR[20]; 0,1 -1,0 0,0 %D?,-I,J++); PRINTF("%D

> RETURN(--Y); Y) FUNC2(INT RETURN(RET1);

> RET1="FUNC2(D++);" RET1; FUNC1(INT PRINTF("%D?",RET);

> RET="FUNC1(I);" RET,I="5;" ABOVE. LOOP ENDLESS ASCII

> 0,1.256 PRINTF("%C?",i); (I="0;I<=256;I++)" 25 C 24 D

> 22 21 E 19 18 16 14 13 12 11 SA2 INTERVAL TIME

> PARTICULAR AT OCCURS. EVEN AUTOMATICALLY EXECUTE

> TRIGGER CALLING EXPLICITLY 25) FIRST. EXCEPT 'A'

> D.NAMES SECOND STARTING C.NAMES 'A' B.NAMES A.NAMES

> DISPLAYED? NAMES A.WHICH ?_A%?; LIKE WHERE EMPLOYEE

> FROM COMMAND: 24.YOU VALUES. ROW CURRENT HOLD LOADE

> CLOSES CURSOR OPENS STATEMENT FETCH ROWS HAPPENS

> MANY-TO-MANY MANY-TO-ONE ONE-TO-MANY -ONE -TO ONE

> DOCTOR PATIENT EXISTS SHIP RELATION ENTITY TYPE

> COMMIT UPDATE DELETE TRANSACTIONS CAUSES INDEXES

> VIEWS TABLES STORED RDBMS ANYONE ALPHANUMERIC SHOULD

> CHARACTER $X > C - B$? B:C;

> PRINTF("%D",A);

> }

>

> A) 10

> B) 5

> C) 0

> D) ERROR

>

> 6). IF THE REMAINDER IS 1 WHEN THE INTEGER N IS

> DIVIDED BY 15, WHAT IS THE REMAINDER WHEN N IS

> DIVIDED BY 5?

> [1] 1 [2] 2 [3] 3 [4] 4 [5] IT CANNOT BE

> DETERMINED FROM THE INFORMATION GIVEN

>

> TWO OPERATORS # AND \forall FOR REAL NUMBERS A AND B ARE

> DEFINED AS FOLLOWS:

>

> (I) $A \# B = A + B$ IF BOTH A AND B ARE POSITIVE

> $= 1$, OTHERWISE

> (II) $A \forall B = (AB) A + B$ IF AB IS POSITIVE

> = 1, OTHERWISE
>
> 7. THE VALUE OF $(2 \# 3) \# ((-1) \# 5)$ IS
> $(1 \# 2) \# ((-1) \# 5)$
> [1] $2/3$ [2] \ll [3]
> $1/3$ [4] NONE OF THESE
>
> 8. THE VALUE OF $((1 \# 1) \# 2) - (10 \text{ LOG } 0.1)$ IS
> $2V1$
> [1] $(4 - 10 \text{ LOG } 1.3)/2$ [2] $1/8$ [3]
> $3/8$ [4] $15/8$
>
> 9. WHAT IS A PROCESS?
> A) A COMMAND
> B) A LOGGED IN USER
> C) A COMPILED EXECUTABLE
> D) AN EXECUTING PROGRAM
> E) NONE OF THE ABOVE
>
> 10. THE UNDERLYING PROTOCOL FOR THE WORLD WIDE
> WEB (WWW) IS
> A) HYPER TEXT TRANSFER PROTOCOL (HTTP) .
> B) WORLD WIDE WEB PROTOCOL (WWWP) .
> C) INTERNET PROTOCOL VERSION 6 (IP v6)
> D) HYPER TEXT MARKUP LANGUAGE (HTML)
>
> 11) IN ORACLE THE DATA TYPE 'DATE' IS USED TO STORE
> A) DATE ALONE
> B) DATE AND TIME
> C) TIME ONLY
>
> 12) ROWNUM IS
> A) A PSEUDO COLUMN
> B) THE PHYSICAL SEQUENCE NUMBER OF THE ROW IN THE
> TABLE
> C) USER DEFINED COLUMN
>
> QUESTIONS 13 - 19
>
> ASSUME THERE ARE TWO TABLES EMP AND SAL WITH
> FOLLOWING STRUCTURE AND DATA
>
> TABLE : EMP
> EMP_NO NAME DEPTNO
> 1 RAM 1

```

> 2    AJAY  2
> 3    RAVI  2
>
> TABLE : SAL
> EMP_NO BASIC
> 1    10,000
> 2    20,000
> 4    30,000
>
>
> 13) SELECT EMP.NAME, NVL(SAL.BASIC,0)
> FROM EMP, SAL
> WHERE EMP.EMP_NO = SAL.EMP_NO
> AND EMP.EMP_NO = 3;
>
> WHAT IS THE OUTPUT OF THE ABOVE SQL?
> A) RAVI, NULL
> B) RAVI, 0
> C) NO RECORDS ARE RETURNED BY THE SQL
> D) NONE OF THE ABOVE
>
> 14) SELECT NVL(EMP.NAME, 'NO NAME'),
> NVL(SAL.BASIC,0)
> FROM EMP,SAL
> WHERE EMP.EMP_NO = SAL.EMP_NO(+);
> A) RAM, 10000 , AJAY 20000 , RAVI 0
> B) RAM, 10000 , AJAY 20000 , NO NAME 0
> C) ERROR
>
> 15) SELECT SUM(SAL.BASIC)
> FROM SAL
> WHERE SAL.EMP_NO NOT IN
> (SELECT EMP_NO FROM EMP);
>
> A) 50,000
> B) 30,000
> C) 20,000
> D) 10,000
>
> 16) SELECT COUNT(EMP_NO) FROM EMP
> GROUP BY DEPTNO
> HAVING COUNT(*) > 1;
> A) 2
> B) 1
> C) 2, 3
> D) ERROR : NOT A GROUP BY EXPRESSION

```

>

> 17) SELECT EMP.NAME FROM EMP

> WHERE EXISTS (SELECT 'X' FROM SAL WHERE SAL.EMP_NO

> = EMP.EMP_NO);

> A) RAM, AJAY, RAVI

> B) RAM, AJAY

> C) RAM, RAVI

> D) NO ROWS SELECTED

>

> 18) UPDATE SAL SET BASIC = BASIC + 5000

> WHERE EMP_NO IN (SELECT EMP_NO FROM WHERE

> DEPTNO = 2);

> THIS UPDATE WILL UPDATE HOW MANY ROWS ?

>

> A) 1

> B) 2

> C) 0

> D) ERROR

>

> 19) WHAT IS THE OUTPUT OF THE FOLLOWING SQL :

>

> SELECT SUBSTR('TEST FOR ORACLE' , 10)

> FROM DUAL;

> A) TEST FOR ORACLE

> B) TEST FOR

> C) ORACLE

> D) O

> E) RACLE

>

> 20) WHAT IS THE OUTPUT OF THE FOLLOWING :

>

> INSERT INTO EMP ..

> CREATE TABLE TEST (TEST_NO NUMBER(3));

>

> ROLLBACK ;

>

> A) TABLE TEST IS CREATED BUT INSERT FAILS

> B) TABLE TEST IS CREATED AND INSERT ALSO HAPPENS

> C) NEITHER TABLE NOR INSERT HAPPENS

> D) TABLE IS NOT CREATED BUT INSERT HAPPENS

>

> 21) WHICH OF THE FOLLOWING IS TRUE ABOUT A PROCEDURE

> ?

>

> A) CAN RETURN A VALUE

> B) CAN BE USED IN SQL STATEMENT

- > C) ALL OF THE ABOVE
- > D) NONE OF THE ABOVE

>

- > 22) WHICH OF THE FOLLOWING IS TRUE ABOUT UNIQUE INDEX ?

>

- > A) ALL VALUES SHOULD BE UNIQUE
- > B) NULL VALUES ARE NOT ACCEPTED
- > C) NONE OF THE ABOVE
- > D) A & B

>

>

- > 23) WHICH OF THE FOLLOWING IS TRUE ABOUT FOREIGN KEY ?

>

- > A) ALLOW NULL VALUES
- > B) ALLOW DUPLICATE VALUES
- > C) A & B
- > D) NONE OF THE ABOVE

>

- > 24) WHICH OF THE FOLLOWING IS TRUE ?

>

- > A) NULL IS SAME AS BLANK
- > B) NULL IS SAME AS ZERO
- > C) A & B
- > D) NONE OF THE ABOVE

>

>

- > 25) HOW MANY JOIN CONDITIONS ARE NEEDED IN A JOIN QUERY TO

- > AVOID A CARTESIAN PRODUCT ?

>

- > A) NO. OF TABLES + 1
- > B) NO. OF COLUMNS + 1
- > C) NO. OF TABLES - 1
- > D) NO. COLUMNS - 1

>

>

- > SA3

>

- > 1 C
- > 2 A
- > 3 B
- > 4 B
- > 5 A
- > 6 1

> 7 1
 > 8 2
 > 9 D
 > 10 A
 > 11 B
 > 12 A
 > 13 C
 > 14 B
 > 15 B
 > 16 A
 > 17 B
 > 18 A
 > 19 C
 > 20 A
 > 21 D
 > 22 A
 > 23 C
 > 24 D
 > 25 C
 >
 >

 > .A CAMP COUNSELOR IS ORGANIZING A GAME AMONG NINE
 > CAMPERS. THREE OF THE CAMPERS - F, G AND H - ARE
 > EIGHT YEAR OLDS; THE OTHER SIX CAMPERS - J, K, M, O,
 > P AND S - ARE NINE YEAR OLDS. TWO -TEAMS - TEAM 1
 > AND TEAM 2 - WILL BE ORGANIZED. TEAM 1 WILL HAVE
 > FOUR CAMPERS; TEAM 2 WILL HAVE FIVE CAMPERS. IN
 > ASSIGNING CAMPERS TO TEAMS, THE COUNSELOR OBSERVES
 > THE FOLLOWING RESTRICTIONS:

>
 > TEAM 1 MUST HAVE EXACTLY TWO OF THE EIGHT - YEAR -
 > OLD CAMPERS.
 > K MUST BE ON THE SAME TEAM AS O
 > F AND J CANNOT BE ON EITHER OF THE TEAMS TOGETHER.
 > M AND P CANNOT BE ON EITHER OF THE TEAMS TOGETHER.
 > IF K IS ON THE SAME TEAM AS P, THEN H MUST BE ON
 > THE TEAM THAT DOES NOT INCLUDE K AND P.

>
 > 6. WHICH OF THE FOLLOWING IS A POSSIBLE
 > ASSIGNMENT OF CAMPERS TO THE TWO TEAMS?

	TEAM 1	TEAM 2
> [1]	F, G, K, O	H, J, M, P,
> S		
> [2]	F, G, M, S	H, J, K, O,

> P
 > [3] F, H, J, M G, K, O, P,
 > S
 > [4] F, H, M, S G, J, K, O,
 > P
 > [5] F, K, P, S G, H, J, M,
 > O
 >
 > 7. If S AND O ARE ON TEAM 2, THE CAMPERS
 > ASSIGNED TO TEAM 1 COULD BE
 > [1] F, H, K, M [2] G, H, J, K [3] G, H,
 > J, P [4] G, H, K, M [5] G, J, M, P
 >
 > 8. If H AND K ARE ON TEAM 2, WHICH OF THE
 > FOLLOWING IS A PAIR OF CAMPERS WHO MUST BE ON TEAM
 > 1?
 > [1] F AND M [2] F AND O [3] F AND P [4]
 > J AND P [5] M AND S
 >
 > 9 If F, M, AND S ARE ON TEAM 1, WHICH
 > OF THE FOLLOWING MUST BE TRUE?
 > [1] G IS ON TEAM 2 [2] H IS ON TEAM 2 [3]
 > K IS ON TEAM 1
 > [4] O IS ON TEAM 1 [5] P IS ON TEAM 1
 >
 > 10. If G IS ON THE SAME TEAM AS H, WHICH OF THE
 > FOLLOWING MUST BE TRUE?
 > [1] G IS ON THE SAME TEAM AS J [2]
 > M IS NOT ON THE SAME TEAM AS S
 > [3] P IS ON THE SAME TEAM AS S [4] F IS
 > NOT ON THE SAME TEAM AS M
 > [5] J IS NOT ON THE SAME TEAM AS P
 >
 > 11. WHAT IS THE OUTPUT OF THE FOLLOWING SQL :
 >
 > SELECT SUBSTR('TEST FOR ORACLE', 10)
 > FROM DUAL;
 > A) TEST FOR ORACLE
 > B) TEST FOR
 > C) ORACLE
 > D) O
 > E) RACLE
 >
 > 12. A PL/SQL BLOCK CAN EXIST WITH
 >
 > A) DECLARE SECTION ALONE

- > B) BODY ALONE
- > C) EXCEPTION ALONE
- > D) DECLARE AND EXCEPTION
- >
- > 13. WHICH OF THE FOLLOWING IS VALID ABOUT VIEWS ?
- >
- > A) VIEW CAN BE BASED ONLY ON A SINGLE TABLE
- > B) VIEW CAN BE BASED ON MORE THAN ONE TABLE
- > C) VIEW IS USED TO STORE DATA
- > D) NONE OF THE ABOVE
- >
- > 14. WHICH OF THE FOLLOWING IS TRUE ABOUT UNIQUE
- > INDEX ?
- >
- > A) ALL VALUES SHOULD BE UNIQUE
- > B) NULL VALUES ARE NOT ACCEPTED
- > C) NONE OF THE ABOVE
- > D) A & B
- >
- > 15) THE 3 OPERATORS USED IN THE RELATIONAL MODEL
- > ARE
- > A. SELECT, UNION, PROJECT
- > B. SELECT, JOIN, INTERSECT
- > C. SELECT, PROJECT, JOIN
- > D. NONE OF THE ABOVE
- >
- > 16) WHAT IS THE MAXIMUM VALUE OF AN INTEGER THAT CAN
- > BE STORED IN A 2 BYTE SIGNED INTEGER DATATYPE:
- > A) 32768
- > B) 65536
- > C) 4
- > D) 100
- > E) NONE OF THE ABOVE
- >
- > 17) TABLE EMP_SAL HAS 20 ROWS WITH SALARY ABOVE 200
- > .
- > HOW MANY ROWS DO THE FOLLOWING QUERY WILL
- > RETRIEVE ?
- >
- > SELECT EMP_NAME FROM EMP_SAL
- > WHERE SAL > 200
- > AND ROWNUM > 10 ;
- >
- > A) 10
- > B) 20
- > C) NO ROWS SELECTED

```

>
> 18) DECLARE
>   NAME1 VARCHAR2(10);
>   NAME2 CHAR(10);
>   BEGIN
>     NAME1 := 'ABC';
>     NAME2 := 'ABC'
>     IF NAME1 = NAME2 THEN
>       PRINT("Hi");
>     ELSE
>       PRINT("HELLO");
>     END IF;
>   END;
>   WHAT IS THE OUT PUT OF ABOVE PL/SQL
> A) Hi
> B) HELLO
> C) ERROR - CHAR CAN NOT BE COMPARED WITH VARCHAR2
>
> 19) WHICH CLAUSE WOULD YOU USE TO EXCLUDE ROWS
> BEFORE GROUPING
>   THEM ?
>
> A) WHERE
> B) HAVING
> C) GROUP BY
> D) MINUS
>
> 20) WHICH TYPE OF ENTITY RELATION SHIP EXISTS
> BETWEEN PATIENT AND DOCTOR ?
> A) ONE -TO -ONE
> B) ONE-TO-MANY
> C) MANY-TO-ONE
> D) MANY-TO-MANY
>
> 21) WHAT HAPPENS WHEN ROWS ARE FOUND USING A FETCH
> STATEMENT ?
> A) THE CURSOR OPENS
> B) THE CURSOR CLOSES
> C) THE CURRENT ROW VALUES ARE LOADE INTO VARIABLES
> D) VARIABLE ARE CREATED TO HOLD THE CURRENT ROW
> VALUES.
>
> 22) EVALUATE THIS PL/SQL BLOCK:
>
> DECLARE
>   V_LOWER      NUMBER := 2;

```

```

> V_UPPER    NUMBER := 100;
> V_COUNT    NUMBER := 1;
>
> BEGIN
>   FOR i IN v_lower..v_lower LOOP
>     INSERT INTO TEST(RESULTS)
>     VALUES      (v_count);
>     v_count := v_count + 1;
>   END LOOP;
> END;
>
> HOW MANY TIMES WILL THE EXECUTABLE STATEMENTS INSIDE
> THE FOR LOOP EXECUTE?
> A) 0
> B) 1
> C) 2
> D) 98
> E) 100
>
> 23) FOR EVERY NEW BALLPLAYER ADDED TO THE PLAYER
> TABLE, A RECORD MUST BE INSERTED INTO THE
> PLAYER_BAT_STAT TABLE. YOU HAVE WRITTEN A TRIGGER
> TO ACCOMPLISH THIS TASK.
>
> TO WHICH TIMING WILL THIS TRIGGER BE ASSIGNED?
> A) AFTER
> B) BEFORE
> C) STATEMENT
> A) PRE-INSERT
>
> 24. INSTR FUNCTION IS USED TO:
> A) RETURN THE POSITION WITHIN STRING1 WHERE STRING2
> IS PLACED
> B) RETURN THE LENGTH OF THE STRING
> C) RETURN PORTION OF STRING
> D) NONE OF THE ABOVE
>
> 25. ROWID IS REPRESENTED IN THE FOLLOWING FORMAT:
> A) ROW.BLOCK.FILE
> B) FILE.BLOCK.ROW
> C) BLOCK.ROW.FILE
> D) BLOCK.ROW
>
>
> SA4
>

```

- > 1 C
- > 2 C
- > 3 A
- > 4 D
- > 5 C
- > 6 4
- > 7 3
- > 8 3
- > 9 1
- > 10 1
- > 11 C
- > 12 B
- > 13 B
- > 14 A
- > 15 B
- > 16 A
- > 17 A
- > 18 B
- > 19 A
- > 20 C
- > 21 C
- > 22 B
- > 23 A
- > 24 A
- > 25 C*

> * THERE IS PROBLEM IN QUESTION PAPER

>
>

> 1. WHICH OF THE FOLLOWING IS A DAEMON PROCESS

- > A. GETTY PROCESS
- > B. LOGIN PROCESS
- > C. C SHELL PROCESS
- > D. ALL THE ABOVE

>
>
>

> 2. UNIX INTER PROCESS COMMUNICATION IS ACCOMPLISHED

- > THROUGH THE USE OF
- > A. SEMAPHORES
- > B. MESSAGE QUEUES
- > C. SHARED MEMORY
- > D. ALL THE ABOVE
- > E. NONE OF THE ABOVE

>
>

>

> 3. WHICH OF THE FOLLOWING ARE VALID LAYERS IN THE
> ISO-OSI ARCHITECTURE

> A. APPLICATION LAYER

> B. SESSION LAYER

> C. PROTOCOL LAYER

> D. A AND B ONLY

> E. A,B AND C

>

>

>

> 4. WHAT IS RS-232C

> A. A PHYSICAL INTERFACE FOR DATA COMMUNICATION

> B. A CARD IN A PC

> C. BELONGS TO THE OSI PROTOCOL SUITE

> D. NAME OF A CABLE COMPANY

> E. ALL OF THE ABOVE

>

>

>

> 5. A SAVE POINT IS

> A. A SYNCHRONIZATION POINT IN DB

> B. INDICATES THAT DB BUFFERS MUST BE SAVED IN DISK,
> TO HELP IN RECOVERY

> C. A POINT WHICH INDICATES A PLACE IN TRANSACTION,
> FOR PARTIAL ROLLBACKS LATER

> D. AN AUTO-TIMER MECHANISM, THAT INDICATES TO USER
> TO SAVE HIS WORK

>

>

>

>

>

> 6. IN RDBMS 'S WHICH OF THE FOLLOWING ARE TRUE

> A. A RELATION MUST ALWAYS HAVE A PRIMARY KEY

> B. A RELATION MUST ALWAYS HAVE A FOREIGN KEY

> C. A RELATION MUST HAVE INDEXES

> D. ALL OF THE ABOVE

> E. NONE OF THE ABOVE

>

>

>

> 7. BUFFERS=50 IN CONFIG.SYS MEANS

>

> A. MAXIMUM OF 50 TEMPORARY BUFFERS CAN BE USED THE
> SORT COMMAND

> B. FOR BUFFERING THE MOST RECENT 50 COMMANDS FOR
> DOSKEY

> C. USED FOR DISK CATCHING

> D. NONE OF THE ABOVE

>

>

>

> 8. INT 21 IS

> A. DOS INTERRUPT

> B. BIOS INTERRUPT

> C. HARDWARE INTERRUPT

> D. NONE OF THE ABOVE

>

>

>

> 9. THE 3 OPERATORS USED IN THE RELATIONAL MODEL ARE

> A. SELECT, UNION, PROJECT

> B. SELECT, JOIN, INTERSECT

> C. SELECT, PROJECT, JOIN

> D. NONE OF THE ABOVE

>

>

>

> 10. IF YOU ARE USING DEVELOPER 2000, THE FOLLOWING
> IS TRUE

> A. RESTRICTED PROCEDURES CAN BE USED IN ALL

> TRIGGERS

> B. RESTRICTED PROCEDURES CAN BE USED IN RESTRICTED

> MODE

> C. RESTRICTED PROCEDURES CAN BE USED IN KEY

> TRIGGERS

> D. NONE OF THE ABOVE

>

>

>

>

> 11. THE DIFFERENCE BETWEEN FORK AND EXEC IN UNIX OS
> IS

> A. FORK CREATES A CHILD PROCESS AND EXEC CREATES A
> PARENT PROCESS

> B. FORK CREATES A CHILD PROCESS AND EXEC EXECUTES A
> PROCESS

> C. FORK CREATES A PARENT PROCESS AND EXEC EXECUTES
> A PROCESS

> D. FORK CREATES AN IDENTICAL CHILD PROCESS AND EXEC
> OVERLAYS THE EXISTING PROCESS.

>

>

>

> 12. WHICH OF THE FOLLOWING PROCESS SCHEDULING
> ALGORITHMS MAY LEAD TO STARVATION?

> A. ROUND RIBON

> B. FIRST COME FIRST SERVE

> C. PRIORITY BASED

> D. SHORTEST JOB FIRST

> E. ALL OF THE ABOVE

>

>

>

>

> 13. IN A TYPICAL DISK SYSTEM, IF YOU WERE TO ORDER
> SEEK TIME, LATENCY AND TRANSFER TIME IN THE ORDER
> FROM HIGHEST TO LOWEST, THE ORDER WOULD BE:

> A. TRANSFER TIME, LATENCY, SEEK TIME

> B. SEEK TIME, TRANSFER TIME, LATENCY

> C. TRANSFER TIME, SEEK TIME, LATENCY

> D. SEEK TIME, LATENCY, TRANSFER TIME

> E. LATENCY, SEEK TIME, TRANSFER TIME

>

>

>

hat is the output of the above code?

>

> a) The code does not compile.

> b) The final result of the expression is a double

> c) The final result of the expression is a float

> d) The final result of the expression is an int

>

> Answer : b

>

> Question 23:

>

> Where in a constructor, can you place a call to a
> constructor defined in the super class?

>

> a) Anywhere

- > b) The first statement in the constructor
- > c) The last statement in the constructor
- > d) You can't call super in a constructor
- >
- > Select the most appropriate answer.
- >
- > Answer : b
- >
- > Question 24:
- >
- > Which of the following will compile correctly
- >
- > a) short myshort = 99S;
- > b) String name = 'Excellent tutorial Mr Green';
- > c) char c = 17c;
- > d))int z = 015;
- >
- Answer : d

Which of the following is not true about

- > serialization
- >
- > a) Only an object that implements the Serializable
- > interface can be saved and restored
- > b) The Serializable interface defines no members
- > c) transient variables can be saved by the
- > serialization facilities
- > d) static variables are not saved by the
- > serialization facilities
- >
- > Answer : c
- >

SECTION 2:

- > 16. NO_DATA_FOUND Exception is raised only
- >
- > (A) When the Where clause of an explicit cursor does
- > not match any rows
- > (B) for SELECT ..INTO statements, when the where

- > clause of the query does not match any rows
- > (C) for update/delete statement , when the WHERE
- > clause does not match any rows
- > (D) All the Above

>

> 17. Consider the following PL/SQL Code

>

```
> DECLARE
>   Cursor c_emp is
>       select *
>       from emp1
>       where dno = 10
>       for update ;
>   v_empinfo c_emp%rowtype ;
> BEGIN
>   FOR v_empinfo in c_emp LOOP
>       update emp1
>       set salary = salary * 10
>       where current of c_emp ;
>       commit ;
>   END LOOP ;
> END ;
> /
```

>

> Data in EMP Table :

>

```
>   Empno  Name Sal  Dno
>
>   100   abc  1000  10
>   200   def  2000  10
>   300   ghi  3000  20
```

>

> What is the output ?

>

- > (A) (Empno,Sal) -> (100,10000),(
- > 200,20000),(300,30000)
- > (B) (Empno,Sal) ->
- > (100,10000),(200,20000),(300,3000)
- > (C) Error : "Use of Where Current of Restricted
- > "
- > (D) Error : "Fetch Out of Sequence "

>

> 18. Consider the following PL/SQL code.

>

```
> declare
>   v_char varchar2(3) := 'ABCD';
```

```

> begin
> dbms_output.put_line('Value of v_char ' || v_char);
>
> exception
>     when others then
>         dbms_output.put_line('Exception Captured');
> end;
> /
>
>

```

> What is the output ?

```

>
> (A) "Value of v_char ABCD"
> (B) "Exception Captured"
> (C) ORA-06502: PL/SQL: numeric or value error
> (D) ORA-1458-invalid length inside variable
> character string
>

```

> 19. Consider the following PL/SQL Code

```

>
> declare
>     empno emp1.empno%type ;
> begin
>
>     select empno
>     into empno
>     from emp1
>     where sal > 1000
>     and rownum < 2 ;
>
>     update emp1
>     set sal = sal + 1000
>     where empno = empno ;
>
> exception when others then
>     dbms_output.put_line('Exception Raised' );
>
>
> end ;
> /
>

```

> Data in Emp Table :

```

>
> Empno Name Sal
> 100 ABC 1000
> 200 DEF 2000

```

> 300 GHI 3000

>

> What will be the output ?

>

> (A) (Empno,Sal) -> (100,1000,200,3000,300,4000)

> (B) (Empno,Sal) -> (100,1000),(200,3000),(300,3000)

> (C) (Empno,Sal) -> (100,2000),(200,3000),(300,4000)

> (D) Error: Invalid usage of variable name which is

> same as column name

>

> 20. Consider the following PL/SQL Code

>

> Create or replace procedure Test_Proc(

> p_empno in number ,

> p_dno in number ,

> p_sal in out number) is

> v_tempvar number ;

> begin

> if p_sal < 1000 then

> p_dno = 20 ;

> p_sal = p_sal+ 1000 ;

> end if ;

> end ;

> /

>

> When the above procedure is compiled , it will

>

> (A) Create procedure Test_Proc ,if one already

> exists replace it.

> (B) Error : Expression 'P_DNO' cannot be used as an

> assignment target

> (C) Error : 'P_SAL' cannot be used as both "In" and

> "Out"

> (D) Warning : v_tempvar not used anywhere

>

> 21. Identify the value of l_result at the end of the

> following PL/SQL block:

>

> DECLARE

> l_var_1 NUMBER := 1;

> l_var_2 CHAR(4) := 'Test';

> l_result VARCHAR2 (20);

> BEGIN

> DECLARE

> l_var_1 VARCHAR2(10) := 10;

> l_var_3 NUMBER := 2;

```

> BEGIN
>   l_result := l_var_3 * l_var_1;
> END;
> l_result := l_var_2 || l_result || l_var_1;
> dbms_output.put_line (l_result);
> END;
>
>
> (A) Test21
> (B) Test2010
> (C) Test201
> (D) Test210
>
> 22. Consider the following PL/SQL block.
>
> DECLARE
>   l_var NUMBER := 1;
> BEGIN
>   IF (l_var = 1) THEN
>     GOTO Jump;
>   END IF;
>   IF (l_var < 5) THEN
>     <>
>     dbms_output.put_line (l_var);
>   END IF;
> END;
>
> Which of the following statements is correct?
>
> (A) Usage of labels is invalid in PL/SQL.
> (B) GOTO cannot branch into an IF statement
> (C) GOTO is not a valid syntax.
> (D) (A) and (C) are correct statements.
>
> 23. Consider the following PL/SQL block.
>
> DECLARE
>   l_var1 NUMBER := &a;
>   l_var2 NUMBER := &b;
>   Data_problem EXCEPTION;
> BEGIN
>   BEGIN
>     IF (l_var1 > l_var2) THEN
>       RAISE NO_DATA_FOUND;
>     ELSE
>       RAISE Data_Problem;

```

```

>     END IF;
> EXCEPTION
>     WHEN NO_DATA_FOUND THEN
>         dbms_output.put_line ('No Data');
>     WHEN Data_Problem THEN
>         RAISE Data_problem;
>     END;
> EXCEPTION
>     WHEN Data_problem THEN
>         dbms_output.put_line ('Data Problem');
>
> END;
>
> Identify which of the following statements is/are
> correct.
>
> (A) Output printed is 'No Data' when a > b .
> (B) Exception cannot be used to move from inner to
> outer block.
> (C) Output printed is 'Data Problem' when b > a .
> (D) Statements A and C are correct.
>
> 24. Employee table has records of 10 employees.
>     Execution of the following PL/SQL block given below
> will result in :
>
> DECLARE
>     CURSOR C1 IS
>     SELECT name, basic+hra salary
>         FROM employee ;
>     Incentive  NUMBER;
>     l_name     VARCHAR2(30);
>     l_salary   NUMBER;
> BEGIN
>     LOOP
>         Fetch c1 INTO l_name, l_salary;
>         EXIT WHEN c1%NOTFOUND OR
>             c1%ROWCOUNT = 9 ;
>         Incentive := l_salary * 0.1 ;
>     END LOOP;
>     close c1;
>     dbms_output.put_line ('Name - ' || l_name);
>     dbms_output.put_line ('Incentive =' ||
> Incentive);
>     END;
>

```

- >
- > (A) Error as alias cannot be used in cursor.
- > (B) Name & Incentive of nine employees will be printed.
- > (C) Error as %NOTFOUND & %ROWCOUNT cannot be used with explicit cursors.
- > (D) Error - Invalid cursor

>

> 25. Consider the procedure given below:

```

>
> PROCEDURE calc_bonus (salary IN INTEGER,
> gross_salary IN OUT NUMBER,
>     bonus OUT NUMBER) IS
> BEGIN
>   IF (salary > 1000) THEN
>     bonus := Salary * .1 ; -- statement 1
>   ELSE
>     salary := Salary * 2; -- statement 2
>     bonus := salary * 0.1 ; -- statement 3
>   END IF;
>   gross_salary := Salary * 2 ; -- statement 4
> END;
```

- >
- > (A) No errors are there in the PL/SQL block
- > (B) Statements 1 and 3 will result in error.
- > (C) Statement 2 will result in error.
- > (D) Statements 1, 2 and 3 will result in error.

>

>

>

> 26. Consider the following data

```

>
> TABLE A  TABLE B
> COL1      COL1
```

```

> -----  -----
> 10        15
> 20        20
> 30        25
> 40        30
> 50        35
> 60        40
> 70        45
> 80        50
> 10        35
> 100       60
>          65
```



```

>      30
>      80
>      90
>     100
>
>
> select count(*)
> from (select A1.col1 col1
>       from  A A1, A A2
>       where A1.col1 = A2.col1
>       UNION ALL
>       select A.col1 col1
>       from  A, B
>       where A.col1(+) = B.col1 );
>
> What would be output of the above SQL query?
>
> (A) 25
> (B) 27
> (C) 29
> (D) error
>
> 27. Consider the following DDL
>
> create table emp(
>   empno number,
>   name char(30),
>   sal number,
>   deptno number,
>   manager number)
>
> create table dept(
>   deptno number,
>   name char(30),
>   location char(30))
>
>
> i) create view view1 as
>   select location, count(empno) emp_count
>   from   emp, dept
>   where  emp.deptno = dept.deptno
>   group by location;
>
> ii) create view view2 as
>   select empno, name, location
>   from   emp, dept

```

```

>      where emp.deptno = dept.deptno;
>
> iii) create view view3 as
>      select *
>      from emp, dept;
>
> Which is the correct view definition ?
>
> (A) i
> (B) i and ii
> (C) ii and iii
> (D) All
>
> 28. What is the output of the SQL statement
>
> select floor((ceil(-0.42) - abs(round(-0.64)))/2)
> from dual;
>
> (A) -2
> (B) -1
> (C) 0
> (D) 1
>
> 29. Consider the following data
>
> Table STUDENT
>
>   Name      subject      status
>  -----
> Student1    Sub1         P
> Student1    Sub2         F
> Student2    Sub1         P
> Student3    Sub2         F
> Student4    Sub1         F
> Student4    Sub2         P
> Student5    Sub1         P
> Student5    Sub2         P
> Student6    Sub1         F
> Student6    Sub2         F
>
> i) select * from student
>      where status = 'P' OR status = 'F' AND subject
>      = 'Sub1';
>
> ii) select * from student
>      where (status = 'P' OR status = 'F') AND

```

```

> subject = 'Sub1';
>
> iii) select * from student
>   where subject = 'Sub1' AND status = 'P' OR
>   status = 'F';
>
> iv) select * from student
>   where status = 'P' OR (status = 'F' AND
>   subject = 'Sub1');
>
>
> Which statements would produce same output
>
> (A) i & ii
> (B) ii & iii
> (C) iii & iv
> (D) i & iv
>
> 30. Consider the following DML operation along with
> table data from above question
>
> i) update student s1
>   set   s1.status = 'P'
>   where s1.subject =
>         ( select distinct(s2.subject)
>         from   student s2
>         where  s1.name = s2.name );
>
> ii) delete from student s1
>   where status > 'F'
>   and   s1.name not in
>         ( select  s1.name
>         from    student s2
>         where   s2.subject = 'Sub2');
>
> iii) update student s1
>   set   s2.status = 'P'
>   where s1.subject in
>         ( select s2.subject
>         from   student s2
>         where  s2.status = 'F');
>
> Which statement(s) are incorrect/errors out:
>
> (A) i & ii
> (B) ii & iii

```

- > (C) i & iii
- > (D) i, ii & iii

>
>
>

Answers:a,d,d,c,d,c,d,c,a,a,c,b,b,d,a,b,d,c,c,b,c,b,d,d,c,b,a,b,d,c

>

>
>

> 11. Which of the following is not true about

> jsp:forward

>

> (A) This allows the request to be forwarded to
> another JSP, a servlet or a static resource.

> (B) The resource to which the request is being
> forwarded should be in the same context as the JSP
> dispatching the request

> (C) Execution in the current JSP stops when it
> encounters jsp:forward tag

> (D) The output stream need not be buffered and it
> can contain some output written to it.

>

> 12. A session has been created by the client. If the

> client does not continue the session within a

> specified time, which of the following will not

> happen

>

>

> (A) the server will expire the session and delete
> all data associated with the session

> (B) the server will expire the session but the data
> associated with the session are retained

> (C) The session key is invalidated

> (D) The old session key is not associated with any
> session

>

>

>

>

> 6. As per the JDBC Specification for SQL to Java

> Datatype Mappings, which of the following statements

> is correct?

>

> a) The SQL datatype DOUBLE maps to the Java datatype
> float

> b) The SQL datatype DOUBLE maps to the Java datatype

> long
> c) The SQL datatype DOUBLE maps to the Java datatype
> double
> d) The SQL datatype DOUBLE maps to the Java datatype
> int
>
> Answer : c
>
> 7. Assuming a method contains code which may raise an
> Exception (but not a RuntimeException), what is the
> correct way for a method to indicate that it expects
> the caller to handle that
> exception:
>
> A) throw Exception
> B) throws Exception
> C) new Exception
> D) Don't need to specify anything
>
> Answer: B
>
> 8. As per the JDBC Specification for Java to SQL
> Datatype Mappings, which of the following statements
> is correct?
>
> a) The Java datatype long maps to the SQL datatype
> REAL
> b) The Java datatype long maps to the SQL datatype
> DOUBLE
> c) The Java datatype long maps to the SQL datatype
> INTEGER
> d) The Java datatype long maps to the SQL datatype
> BIGINT
>
> Answer : d
>
> 9. What class must an inner class extend:
>
> A) The top level class
> B) The Object class
> C) Any class or interface
> D) It must extend an interface
>
> Answer: C
>
> 10. What is the effect of adding the sixth element to

> a vector created in the following manner:
>
> new Vector(5, 10);
>
> A) An IndexOutOfBoundsException exception is raised.
> B) The vector grows in size to a capacity of 10
> elements
> C) The vector grows in size to a capacity of 15
> elements
> D) Nothing, the vector will have grown when the
> fifth element was added

>
> Answer: C

>
>
>
>
> 11. What is the value returned by
>
> "abcd" instanceof Object
> A) "abcd"
> B) true
> C) false
> D) String

>
> Answer: B

>
> 12. Which of the following are true about
> constructors?
>
> A) A class inherits its constructors from its
> parent
> B) The compiler supplies a default constructor if
> no constructors are provided for a class
> C) All constructors have a void return type
> D) A constructor cannot throw an exception

>
> Answer: B

>
> 13. Which of the following are true about an
> unreachable object?
>
> A) It will be garbage collected
> B) Its finalize() method will be invoked
> C) It can become reachable again
> D) It has a null value

>

> Answer: C

>

> 14. Which of the following must be true of the
> object thrown by a throw statement?

>

- > A) It must be assignable to the Throwable type
- > B) It must be assignable to the Error type
- > C) It must be assignable to the Exception type
- > D) It must be assignable to the String type

>

> Answer: A

>

> 15. Can a null value be added to a List?

>

- > A) Yes
- > B) Yes, but only if the List is linked
- > C) Yes, provided that the List is non-empty
- > D) No

>

> Answer: C

>

> 16. Which of the following are valid Java
> identifiers?

>

- > A) %id
- > B) @id
- > C) id
- > D) #id

>

> Answer: C

>

> 17. Which of the following are true about this
> variable declaration?

> private static int I=3;

>

- > A) The value of variable I may not be changed
> after it is assigned a value
- > B) Variable I may only be updated by a static
> method
- > C) The value of I is shared among all instances of
> the class in which it is declared
- > D) Variable I may be accessed within the static
> methods of other classes

>

> Answer: C

>

>
> 18.
>

50) The command
grep first second third /usr/you/myfile

- a) prints lines containing the words first, second or third from the file /usr/you/myfile
 - b) searches for lines containing the pattern first in the files
second, third, and /usr/you/myfile and prints them
 - c) searches the files /usr/you/myfile and third for lines containing
the words first or second and prints them
 - d) replaces the word first with the word second in the files third and /usr/you/myfile
 - e) None of the above
- Ans) b

- 2. In Unix inter process communication take place using?.
- 3. What are the files in /etc directory?.
- 4. About i-node numbers
- 5. Max relaxable permission value without giving write permission to others?.
- 6. About ln(linking)
- 7. A question on until
until (who |grep mary)
do
sleep(60)
done
- 8. Linking across directories?.
- 9. process id for kernel process

- 10.very first process created by kernell
- 11.function to repaint a window immediately?.
- 12.Function entry for DLL in win3.1
- 13.win 3.1 is a
- 14.win 3.1 supports which type of multi tasking?.
- 15.Message displayed when a window is destroyed
- 16.About fork()?
- 17.About send message and post message
- 18.Message to limit the size of window
- 19.System call executable binary file intoa process
- 20.About GDI object?.
- 21.API used to hide window
- 22.Initialize contents of a dialog?.

- 1.The C language terminator is
 - a.semicolon
 - b.colon
 - c.period
 - d.exclamation mark
- 2.What is false about the following

A compound statement is

 - a.A set of simple statments
 - b.Demarcated on either side by curly brackets
 - c.Can be used in place of simple statement
 - d.A C function is not a compound statement.
- 3.What is true about the following

C Functions

 - a.Need not return any value
 - b.Should always return an integer
 - c.Should always return a float
 - d.Should always return more than one value.
- 4.Main must be written as
 - a.the first function in the program
 - b.Second function in the program
 - c.Last function in the program
 - d.any where in the program
- 5.Which of the following about automatic variables within a function is correct ?
 - a.its type must be declared before using the variable
 - b.they are local

- c.they are not initialised to zero
- d.they are global.

This the COBOL paper.

01.consider the following piece of code

```
01 GROSS-PAY
```

```
    05 BASIC-PAY PIC 9(5)
```

```
    05 ALLOWENCES PIC 9(3)
```

if BASIC-PAY has a value 1000 and ALLOWENCES has a value of 250,what will be displayed by the statement

```
    DISPLAY GROSS-PAY
```

- a.1250
- b.01000250
- c.01250
- d.1.250

02.consider two data items

```
77 W-A PIC 9(3)V99  VALUE 23.75
```

```
77 W-B PIC ZZ9V99  VLAUE 123.45
```

after the statement

```
    MOVE W-A TO W-B
```

what will be W-B's value?

- a.123.75
- b.b23.75 (where b indicates space)
- c.023.75
- d.invalid move

03.what is the result of the following?

```
DIVIDE A INTO B GIVING C.
```

- a. $C=A/B$
- b.the remainder of B/A is stored in C
- c. $C=B/A$
- d.the remainder of A/B is stored in C

04.consider the statement (incomplete)

```
IF(A NUMERIC)
```

```
    DISPLAY A
```

the variable A can be

- a.NUMERIC
- b.ALPHABETIC
- c.ALPHANUMERIC
- d.NUMERIC OR ALPHANUMERIC

05.which of the following can be used as a check protection symbol

- a.Z

- b.S
- c.*
- d.+

06.what if any ,is the syntax error in the following piece of code

```
01 B PIC A(7)
02 C PIC 9(4)
```

```
.....
IF(B NUMERIC)
ADD 10 TO C
```

- a.the condition in the if statement is wrong
- b.nothing is wrong
- c.because C is initialised.ADD 10 TO C is wrong
- d.both B and C should have same size.

07.study the following code

```
01 A1
05 B PIC 99
05 C PIC X(4)
01 A2
05 B PIC 99V99
05 C PIC A(4)
```

pick out the valid statement from the following

- a.A1 and A2 can not have sub-ordinates
- b.A1 and A2 can have the same sub-ordinates but must have same PIC clause
- c.there is nothing wrong
- d.A1 and A2 can have same sub-ordinates provided they are not at 01 level

08.study the following

```
01 A PIC 99V0 VALUE 5
01 B PIC 9V9 VALUE 6
01 C PIC 99V9 VALUE 2.5
01 D PIC 99 VALUE 3
COMPUTE A ROUNDED B C = A+B*C/D
ON SIZE ERROR PERFORM PRINT-ERROR
```

the comments of A.B.C after execution of the above statement are

- a.A=10 B=0 C=10
- b.A=10 B=9.9 C=9.9
- c.A=10 B=0 C=9.9
- d.A=10 B=6 C=10

09.how many times PARA-A is performed :

```
PERFORM PARA-A VARYING TIMES-COUNTER FROM 1 BY 1
UNTIL TIMES-COUNTER >0
PARA-A
MOVE P TO Q
MOVE H TO TIMES COUNTER
```

- a.10
- b.1
- c.11

d.0

10. consider the following piece of code

```
01 GROUP-ITEM
  05 AMOUNT-1 PIC 99V9  USAGE COMP VALUE 50
  05 AMOUNT-2 PIC 9(4)V99 USAGE COMP
  MOVE ZERO TO GROUP-ITEM
  ADD 50 TO AMOUNT-1
```

what will be the content of AMOUNT-1?

- a.50
- b.100
- c.0
- d.unpredictable

11. consider the following program statements

```
MOVE 0 TO SW.NO.OF.REC
PERFORM PRI-OUT UNTIL SW=1
DISPALY NO.OF.REC
STOP RUN
PRE-OUT
READ IN-FILE AT END
MOVE 1 TO SW
WRITE OUO-REC FROM IN-REC
ADD 1 TO NO.OF REC
```

if the IN-FILE contains 1000 records what value will be displayed after the PERFORM is over? assume that NO.OF.REC has PIC 9(4)

- a.1000
- b.1001
- c.1
- d.none of the above since there is a syntax error

12. study the data descriptions and answer the questions given below

i) 01 ORDER RECORD

```
  05 OUT-HEADER PIC X(50)
  05 ITEM-COUNT PIC 99
  05 OUT-ITEM PIC X(20) OCCURS 1 TO 20 DEPENDING ON ITEM-COUNT
```

ii) 01 NAME-AND-ADDRESS

```
  05 N-AND-A-LINE OCCURS 5
  05 LINE-LENGTH PIC P9
  05 N-AND-A-CHAR PIC X OCCURS 1 TO 20 DEPENDING ON LINE-
```

LENGTH

iii) 01 SALES-LIST

```
  05 SALESMAN-COUNT PIC 99
  05 SALES PIC 9(6) OCCURS 1 TO 100 DEPENDING ON
    SALESMAN-COUNT
```

iv) 01 ORDER-RECORD

```
  05 NO-OF-BRANDS PIC 99
  05 BRAND-PURCHASED OCCURS 1 TO 15 DEPENDING ON NO-OF-
```

BRANDS

which of the following is true?

- a.i) and iii) are valid
- b.i) and iv) are valid
- c.i) and iii) are not valid
- d.all are valid

13.C1 C2 C3 are three conditions whose TRUTH values are as folloes.

C1-TRUE C2-FALSE C3-TRUE

A,B,C are defined as given below

A:C1 AND(NOT C2) OR C3

B.(NOT C1) OR (NOT C2 AND NOT C3)

C.(C1 OR C2)AND C3

D.C1 AND C2 OR C3

given the above information which of the following statements are valid?

- a.only A,B and C are TRUE
- b.only A,C and D are TRUE
- c.A,B,C and D are TRUE
- d.only C and D are TRUE

14.consider the following

FD FILE-1

01 REC-1 PIC X(80)

.....

WORKING-STORAGE SECTION

01 W-REC PIC X(90)

.....

PROCEDURE DIVISION

FIRST-PARA

.....

READ FILE-1 INTO W-REC AT END MOVE 1 TO EOF-FLAG

which of the following is true with respect to the above?

- a.REC-1 will contain nothing and W-REC will contain the contains of the record read
- b.REC-1 and W-REC contain the same data
- c.syntax is invalid and error will occur
- d.REC-1 and W-REC must be of same size

15.PERFORM ACCUMULATE-TOTALS

VARYING A FROM 1 BY 2 UNTIL A >2

AFTER B FROM 1 BY 1 UNTIL B>2

AFTER C FROM 2 BY -1 UNTIL C<2

the paragraph ACCUMULATE-TOTALS would be exicuted

- a.18 times
- b.4 times
- c.8 times
- d.24 times

16.there is a file whose ORGANISATION is INDEXED.you want to read the records from the file in RANDOM fashion as well as sequentially.then which of the access mode would you specify?

- a.SEQUENTIAL
- b.RANDOM
- c.DYNAMIC
- D.ACCESS MODE has nothing to do with it

17.consider the following PROCEDURE DIVISION entry

OPEN EXTEND IN-FILE

identify the correct statement

- a.organization of IN-FILE is sequential and records can be added in the beginning
- b.organization of IN-FILE is sequential and records can be added in the end
- c.organization of IN-FILE is indexed and records can be added in the beginning
- d.organization of IN-FILE is indexed and records can be added in the end

18.what is the size of W-REC in the following

01 W-REC

05 A PIC 9(4)V99

05 B READLINES A

10 C PIC XX

10 D PIC S9(4)

05 E OCCURS 7 PIC ZZ.ZZ

05 F OCCURS 5

10 G PIC ZZ.ZZZ99

10 H OCCURS 3

15 J PIC 9(3)

15 K PIC V99

- a.177
- b.161
- c.180
- d.none of yhe above

19.consider the following two IF statements:

IF X AND NOT Y MOVE A TO B

IF Z=1 OR 9 MOVE A TO B

select one of the following data divusion entries which gives identical results for both the above IF statements

a.01 Z PIC 9

88 X VALUE 1.9

88 Y VALUE 0.2 THRU 8

b.01 Z PIC 9

88 X VALUE 0.2 THRU 8

Y VALUE 1.9

c.01 Z PIC 9

88 X VALUE 1.9

88 NOT-Y VALUE 0.2 THRU 1.9

d.none of yhe above

20.consider the following two statements

```

MOVE 10 TO N
PERFORM PARA-X N TIMES
STOP RUN
PARA-X
MOVE 5 TO N

```

how many times PARA-X will be executed?

- a. 10
- b. 5
- c. infinite
- d. execution error

21. given the following:

```

77 A PIC 9V9 VALUE 9.5
77 B PIC 9 VALUE 9.
77 C PIC V9 VALUE 0.8
77 D PIC 9
77 E PIC 9
77 F PIC 9V999

```

what are the contents of D E and F after the following statements are executed:

```

COMPUTE F ROUNDED=A+C/B
MULTIPLY A BY C GIVING E
ADD B C A GIVING D ROUNDED

```

- a. F=9.589 E=8 D=1
- b. F=9.589 E=8 D=9
- c. F=9.589 E=7 D=9
- d. F=9.589 E=7 D=1

22. Consider the following IF condition:

```

IF A LESS 1200 IF B GREATER 25 MOVE 47 TO C
ELSE MOVE 57 TO C
IF A GREATER 249 MOVE 67 TO C
ELSE NEXT SENTENCE ELSE IF B LESS 67
MOVE 27 TO C

```

What will be the value of C, when A is 137 and b is 25

- (a) 27
- (b) 57
- (c) 67
- (d) none

23. Consider the following:

```

77 W-NUM PIC 9 VALUE 0
-----
MOVE 1 TO W-NUM

```

PERFORM PARA-X UNTIL W-NUM > 9.

PARA-X

ADD 1 TO W-NUM

How many times PARA-X is executed ?

- (a) 10
- (b) 9
- (c) 11
- (d) Infinite loop

24. Consider the following code:

```
77 A PIC 99V99 VALUE 55.35
77 B PIC 99V999 VALUE 32.754
```

ADD B TO A ON SIZE ERROR DISPLAY "ERROR!!!"

What will be the result ?

- (a) A=88.10, B=32.754
- (b) A=87.00 B=32.754
- (c) A=87.10 B=32.754
- (d) ERROR!!! will be DISPLAYed on the screen.

25. Consider the following:

```
77 A PIC 9(10)
77 B PIC 9(10)
77 C PIC 9(19)
```

MULTIPLY AB BY B GIVING C

Which of the following is true ?

- (a) The execution of the above may result in size error.
- (b) The execution of the above will result in size error.
- (c) The definition of C is invalid resulting in compilation error.
- (d) No error will be there and the program would proceed correctly.

26. A paragraph PARA-X is to be executed when none of the data names A, B and C have value of 1. Which of the following will achieve this ?

- (a) IF A NOT = 1 OR B NOT = 1 OR C NOT = 1 PERFORM PARA-X
- (b) IF NOT A = 1 AND B = 1 AND C = 1 PERFORM PARA-X
- (c) IF A NOT = 1 IF NOT B = 1 OR C = 1 PERFORM PARA-X
- (d) IF A NOT = 1 AND B NOT = 1 AND C NOT = 1 PERFORM PARA-X

27. Study the five expressions and the class to which they belong:

S.N.	Expression	Class
1	"SPACES"	Figurative constant
2.	"Depreciation Schedule	Non-numeric literal
3.	"12%"	Non-numeric literal
4.	INTEREST-DUE	Non-numeric literal
5.	ZEROES	Figurative constant

Which of the following statement is true?

- (a) 1 and 3 are incorrect
- (b) 1 and 4 are incorrect
- (c) 3 and 4 are incorrect
- (d) All are correct

28. Identify the invalid dataname from the following:

- (a) SAVINGS-ACCOUNT
- (b) ANNUAL-ALLOCATION-FOR-OVERHEAD
- (c) SAMOUNT250
- (d) 12DEMAND

29. Study the DATA DIVISION entries and the three PROCEDURE DIVISION entries given below:

```
01 END-OF-FILE-SWITCH PIC XXX.  
88 NO-MORE-RECS VALUE "YES".  
88 MORE-RECS VALUE "NO".  
(i) READ SAMPLE-FILE AT END MOVE "YES" TO NO-MORE-RECS.  
(ii) IF NO-MORE-RECS = "YES" GO TO LAST-PARA.  
(iii) IF NO-MORE-RECS GO TO LAST-PARA.
```

Which are wrong?

- (a) (i) and (ii)
- (b) (ii) and (iii)
- (c) (i) and (iii)
- (d) all

30. The following entries appear in the WORKING-STORAGE SECTION:

```
01 DATE-TODAY.  
05 YY PIC XX VALUE "90".  
05 MM PIC XX VALUE "12".  
05 DD PIC XX VALUE :31".  
01 DATE-EDIT PIC XX/XX/XX.  
MOVE DATE-TODAY TO DATE-EDIT.
```

- (a) 901231
- (b) 90/12/31
- (c) 31/12/90

(d) 311290

31. How many bytes will be allocated for the following record description entries?

```
01 REC-A.  
  05 A PIC S9(4).  
  05 B PIC XXXBXXX.  
  05 C PIC ____9.99.  
  05 D PIC S9(5) COMP-3.  
  05 E PIC 9(3) COMP.
```

- (a) 29
- (b) 26
- (c) 25
- (d) 28

32. What is wrong with the following data declaration?

```
01 W-DATE  PIC X(6).  
  05 DD PIC 99.  
  05 MM PIC 99.  
  05 YY PIC 99.
```

- (a) Nothing is wrong.
- (b) Under W-DATE all level 05 items are having a PIC 99 but level 01 has PIC X(6).
- (c) PIC can't be specified for a group item.
- (d) DD, MM, and YY are invalid datanames.

33. What is the output generated by the following code?

```
01 GRP-1.  
  05 SUBFLD1 PIC XX VALUE "AB".  
  05 FILTER PIC X(6) VALUE SPACES.  
01 GRP-2 REDEFINED GRP-1.  
  05 SUB-FLD2 PIC XX.  
  05 SUB-FLD3 PIC XX.  
  05 FILTER PIC X(4).  
IF SUB-FLD1 NOT = SPACES  
  DISPLAY "SUBFLD1"  
  MOVE "ABBCCD" TO GRP-1  
  IF SUB-FLD3 = SPACES  
    DISPLAY "SPACES"  
  ELSE  
    DISPLAY "SUBFLD3"  
    DISPLAY "END"  
  ELSE  
    DISPLAY "SPACES"  
    DISPLAY "END".
```

- (a) SUBFLD1

SUBFLD3
END
(b) SPACES
END
(c) SUBFLD1
END
(d) SUBFLD1
SPACES

34. 88 level entry is used for
(a) data items in WORKING-STORAGE SECTION
(b) items with RENAME clause
(c) condition-names
(d) None of the above
35. ZEROES and SPACES are _____ constants
(a) Figurative
(b) Numeric
(c) Non-numeric
(d) Alphabetic
36. COMPUTE X = A * B - C * D and
COMPUTE X = (A * B) - (C * D)
(a) Are not the same
(b) Are same
(c) Syntactically wrong
(d) Will yield a run time error
37. OCCURS clause is used in the DATA DIVISION on data names at
(a) 01 level
(b) 77 level
(c) 88 level
(d) any level from 02 to 49
38. Consider the following COBOL entries:
05 X PIC 99 VALUE 10.
SUBTRACT 20 FROM X.
The resultant value of X will be
(a) 10
(b) 00
(c) compile-time error
(d) none of these
39. Consider the following COBOL entries
05 X PIC 99 VALUE 10.
ADD 40 X TO X.

- COMPUTE X = 3 * X - 40.
The result in X is
- (a) 10
 - (b) 40
 - (c) Compile or Run time error
 - (d) none of these

40. given the following piece of code:
- ```
CALL SUB-PGM USING A, B, C.
CALL SUB-PGM USING A, C, C.
```
- (a) Both CALL statements will always produce same result.
  - (d) Both CALL statements may produce different result.
  - (c) Compile-time error because SUB-PGM is a dataname.
  - (d) Compile-time error because A, B, C are used twice.

41. The hierarchy of the execution of logical operators is
- (a) NOT AND OR
  - (b) AND OR NOT
  - (c) OR AND NOT
  - (d) OR NOT AND

42. The order of precedence of arithmetic operators in an expression can be overridden with the use of
- (a) []
  - (b) ()
  - (c) {}
  - (d) Any of the above

Consider the following passage for answering questions 43 to 47.

A program is written to accept an answer to the query "enough fo the Day?"  
If the respons is "N" t