Important Question Part-1

PROGRAMMING FUNDAMENTALS

Q1. Name any two Object Oriented Programming languages?

Ans. C++ and Java

Q2. Why is java called a platform independent language?

Ans Java program can be easily moved from one computer system to another, anywhere anytime. Changes and upgrade in operating system, processors and system resources will not force any change in the Java program. Hence it is called a platform independent language.

Q3. Elaborate the java Compilation process.

Ans. The source program is first converted into a byte code using a java compiler. This byte code is machine independent i.e. same for all the machines. Later the byte code is executed on the machine using an interpreter.

Q4. Why do we write a comment in a program? What are the two ways of writing comment in a java Program?

Ans. Comments are added to a program for the following purposes:-

1. Make the more readable and understandable

2. For future references we can add comments in a Java program in the following ways:

i) Adding // before the line which is to be commented. This can be used only for single line comments.

ii) using a pair of /* and */ for multi-line comments.

Q5. What is a syntax error in context of a program? Give an example.

Ans. Error in the way of writing a statement in a program, results in a syntax error.For e.g. for (i=0, i<=100. i++), will result in a syntax because the program has written comma instead of a semi comma in the for loop.

Q6. What is RAD programming? Why is program development in java using Netbeans IDE is RAD?

Ans. RAD stands for Rapid Application Development. A programming style which aims at building programs fastly through the use of tools and wizards is called RAD. Program development using Netbeans IDE is RAD as it

• provides GUI

• Provides online help and suggestions during typing of the program (using ctrl+ Spacebar key)

• Error alerts while typing of the program.

Q7. What is IDE? Name two IDE for Programming in java.

Ans. A programming environment, where all the tools required for programming are available under one roof is called IDE. Two IDE for Java are Netbeans and BlueJ

Q8. Name any two type of Tokens available in Java.

Ans. Keyword, Identifier, Literal, Punctuators ad Operators.

Q9. What are primitive data types? Name the various primitive data type available in Java.

Ans. Data types that are directly available with java are called primitive data type.Various primitive data types available in java are byte, short, int, long, float, double, char and boolean.

Q10. What are Reference data types?

Ans. Data types created by the programmer using the primitive data type are called reference data type e.g. Classes, interfaces etc.

Q11. What is type casting?

Ans. Converting a value form one type to another is called type casting.For e.g. int a = 5 . here 'a' is a integer, which can be cased to float as follows float b = (float) a;

Q12. Name and explain the usage of any two data types used in Java to store numbers with decimals.

Ans. Two data types available in java for storing numbers with decimals are

1. float: for single precision floating point values for e.g. float num = 10.0F
2. double: for double precision floating point value. This is the default data type for decimal numbers. for e.g. double num = 10.0

Q13. What are Keywords? Give two examples of keywords available in Java.

Ans. Keywords are words that have a specific predefined meaning in Java. They cannot be used as variable names. Eg. void, private, if, while etc.

Q14. Name and explain the usage of any one relational and one logical operator in Java.

Ans. One relational operator in java is ==. This operator results in true if both its operands are equal otherwise false. One logical operator in java is &&. This operator is used to combine two logical values. The result of the && will be true if and only if both its operands are true otherwise false.

Q15. What is the difference between = and == operator in java?

Ans. Represent an assignment operator. It sets the value of the variable on its left side with the result of expression on its right side. == represent a conditional equal to operator. It checks for the equality of both its operands. If both the operands are equal, condition evaluates to true otherwise to false.

Q16. Name the two type of selection statement available in Java.

Ans. Two selection statement available in java are 'if' and 'Switch'

Q17. Write the purpose of Switch Statement with the help of an example. Which Java Statement can be used in place of switch statement? In the switch statement, what happens if every case fails and there is no default option?

Ans. A Switch statement is used execute a statement from a group of statement based on the result of a expression. The expression must result in either of byte, short, integer or character. An 'if statement' can be used in place of switch statement. In a switch statement if none of the statement satisfies and even there is no default case then nothing would happen. This would not result in any sort of error.

Q18. What is the purpose of 'break' statement in java?

Ans. Break is used to terminate the current switch statement or the loop.

Q19. What is the purpose of 'continue' statement in java?

Ans. Continue statement skips the remaining part of the current loop and begins the next iteration of the loop.

Q20 Find the output of the following code snippet written in java public static void main(String [

]args)

```
{
long a=78345,s1=0,s2=0,r;
while(a>0)
{
r=a%10;
if (r%4==0)
s1+= r;
else
s2+=r;
a/=10;
```

}

System.out.println("S1 ="+ s1);

System.out.println("S2 ="+ s2);

}

Ans. Output:

s1= 12

s2= 15

Q21. Correct the errors in the following program segment written in JAVA. You are just required to write the corrected code, underlying the corrections made.

public Static Void Main (String [] args)

{

Integer Nos = 100;

while (Nos => 45)

{

If (Nos % 5 = 0);

Nos+=10;

otherwise

Nos + = 20;

}

}

Ans: Corrected Code

public static void main (String [] args)

{

int Nos = 100;

while (Nos >= 45)

{

if (Nos % 5 == 0)_

Nos+=10;

else

Nos + = 20;

}

}

Important Questions Part-2

JAVA GUI PROGRAMMING REVISION TOUR – II [Swing Controls]

1.What does getPassword() on a password field return?
(a) a string (b) an integer (c) a character array.
Ans: (c) a character array
2. Which of the following component is the best suited to accept the country of the user?
A. List B. Combo box C. Radio button D. Check box
Ans: B. Combo box
3. What command do you need to write in actionPerformed() event handler of a button, in order to
make it exit button?
a. System.out.println(); b. System.exit(0); c. System.out.print()
Ans: b. System.exit(0);
4.What method would you use, in order to simulate a button's(namely Okbtn) click event, without any
mouse activity from user's side?
a. Okbtn.setText() b.Okbtn.getText() c. Okbtn.doClick()
Ans: Okbtn.doClick()
5. What would be the name of the event handler method in the ListSelection listener interface for a list
namely CheckList to handle its item selections?
a. CheckListValueChanged() b. getSelectedValue() c. clearSelection()
Ans: a. CheckListValueChanged()
6. Which control displays text that the user cannot directly change or edit?
a.TextField b. Checkbox c. Combobox d. Label
Ans: d.Label
7.Which control provides basic text editing facility?
a.TextField b. Checkbox c. Combobox d. Label
Ans: a. TexfField

8. Occurrence of an activity is called:

a. Function b. Class c. Object d. Event

Ans: d.Event.

9. Which property is used to set the text of the Label?

a. font b.text c.name d. icon

Ans: b.text

10. The object containing the data to be exhibited by the combo box by which property.

a. editable b. model c.selectedIndex d.selectedItem

Ans: b. model

11. What is GUI programming?

Ans: A GUI(Graphical User Interface) is an interface that uses pictures and other graphic entitiesalong with text, to interact with user.

12. How is swing related to GUI programming?

Ans: We can create a GUI application on Java platform using Swing API (Application ProgrammingInterface), which is part of Java Foundation Classes(JFC).

13. What is an event? What is event handler?

Ans: An event is occurrence of some activities either initiated by user or by the system. In order toreact, you need to implement some Event handling system in your Application. Three things areimportant in Even Handling**Event Source:** It is the GUI component that generates the event, e.g. Button.

Event Handler or Event Listener: It is implemented as in the form of code. It receives and handles events through Listener Interface.

Event Object or Message: It is created when event occurs. It contains all the information about the event which includes Source of event and type of
event etc.

14. What is the default name of action event handler of a button namely TestBtn?

Ans: private void TestBtnActionPerfomed(java.awt.action.ActionEvent evt){ }.

15. What property would you set to assign access key to a button?

Ans: mnemonic property is used to assign access key or shortcut (Alt + Key).

16. Which method can programmatically performs the click action of a push button?

Ans: private void TestBtnActionPerfomed(java.awt.action.ActionEvent evt){ }.

17. Which property would you set the setting the password character as '$'?

Ans:echoChar

18. Which method returns the password entered in a password field?

Ans: char [] getPassword().

19. Which list property do you set for specifying the items for the list.

Ans: model

20. Which method would you use to determine the index of selected item in a list?

Ans: int getSelectedIndex().

21. Which method would you use to insert an item at specified index, in the list?

Ans: void setSelectedIndex(int index).

22. How you can determine whether 5th item in a list is selected or not?

Ans: isSelectedIndex(4).

23. Which method you would use to insert 'Hello' at 10th position in the Text Area control.

Ans:void insert("Hello", 9).

24. Which method you would like to use to insert an Icon (picture) on a Push Button.

Ans: void setIcon(Icon).

25. Which property would you like to set to make a Combo box editable?

Ans: editable.

26. What is Layout Manager? Name the layout managers offered by NetBeans?

Ans: Layout managers enable you to control the way in which visual components are arranged in GUIforms by determining the size and position of components within containers. There are seven types of layout are available–

- Flow Layout
- Grid Layout
- Card Layout
- Spring Layout
- Border Layout
- GridBag Layout
- Box Layout

27. Name three commonly used properties and methods of the following controls.

(a) text field (b) text area (c) Check Box

Ans: (a) Properties: text, font, editable. Methods: void setText(), String getText(), void setEditable(boolean).

(b) Properties: enabled, editable, wrapStyleWord Methods: setText(), getText(), isEditable()

(c) Properties:font, text, selected . Methods: getText(), isEnabled(), isSelected().

28. What is dispose() used for ?

Ans: dispose() is used for hide and dispose of the frame when the user closes it. This removes the frame from the screen and frees up any resources used by it.

29. What is the difference between-

(a) Text field & Text area

(b) Text field & password field

(c) Radio Button & Check Box

Ans: (a) A text field's text property can hold single line of text unless it is an HTML text. While a textarea's text can hold any number of lines of text depending upon its rows property.

(b) Though a text field and a password field can obtain a single line of text from the user, yet these aredifferent. A password field displays the obtained text in encrypted form on screen while text field displays theobtained text in unencrypted form.

(c) **Radio Button**: A jRadioButton control belongs to JRadioButton class of Swing controls. It is used to get choices from the user. It is grouped control, so that only one can be selected at a time among them. Radio Button works in group, so that they must be kept in a ButtonGroup container control like so that only one can be selected at the same time. Some features of jRadioButton control are-It can be used to input choices typed input to the application.Only one Radio button can be selected at a time.They must be kept in a Button Group container control to form a group.

Check box: A jCheckBox control belongs to JCheckBox class of Swing controls. It indicates whether a particular condition is on or off. You can use Check boxes to give users true/false or yes/no options.Check Boxes may works independently to each other, so that any number of check boxes can beselected at the same time.Some features of jCheckBox control are-

It can be used to input True/False or Yes/No typed input to the application.

Multiple check boxes can be selected at the same time.

30. What is the significance of following properties of a text area ?

(a) lineWrap (b) wrapStyleword

Ans: (a) Defines Wrapping featureenable/disable (b) Determines where line wrapping occurs. If true, the component attempts to wrap only at word boundaries. This property is ignored unless linewrap is set to true.

31. What is the significance of a button group? How do you create a button group?

Ans: We must add a **ButtonGroup control** to the frame to group the check boxes by using Button Group property of the check box. By dragging buttongroup control from palette window.

32. What do you understand by focus?

Ans: A Focus is the ability to receive user input/response through Mouse or Keyboard. When object or control has focus, it can receive input from user.An object or control can receive focus only if its enabled and visible property are set to true.Most of the controls provides FOCUS_GAINED() and FOCUS_LOST() method in FocusEvent by the FocusListener. FOCUS_LOST() is generally used for validation of data.You can give focus to an object at run time by invoking the requestFocus() method in the code.Ex. jTextBox2.requestFocus();

33. What is meant by scope of a variable?

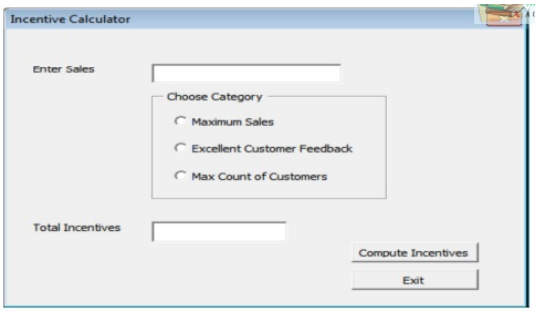
Ans: In Java, a variable can be declared any where in the program but before using them. The area of program within which a variable is accessible, known as its scope. A variable can be accessed within the block where it is declared.

```
{
int x=10;
if (a>b)
{ int y=5;
..... Scope of x and y
}
else
{ int z=3;
..... Scope of z
}
.....
}
```

34. Create a Java Desktop Application to find the incentive (%) of Sales for a Sales Person on the basis of following feedbacks:

Feedback	Incentive%
Maximum Sales	**10**
Excellent Customer Feedback	**8**
Maximum Count Customer	**5**

Note: that the sales entry should not be space.Calculate the total incentive as :Sales amount* Incentive.The feedback will be implemented in JCheckBox controls.Using a JButton's (Compute Incentive)click event handler,display the total incentives in a JTextField control. Assume the nomenclature of the swing components of your own. Note that the JFrame from IDE window will be shown as given:



Ans:- private void btnIncActionPerformed (java.awt.ActionEvent evt) {
int sales = 0;
if (! txtSales.getText( ).trim( ).equals(“”)){
sales-Integer.parseInt(txtSales.getText( ).trim ( ));
}
double incentive = 0.0;
if (jCheckBox1.isSelected ( )) {
incentive = incentive + 0.1;
}
if (jCheckBox2.isSelected ( )) {
incentive = incentive + 0.8;
}
if (jCheckBox3.isSelected ( )) {
incentive = incentive + 0.05;
}
txtInc.setText (“ “ + Math.round(sales * incentive));
}

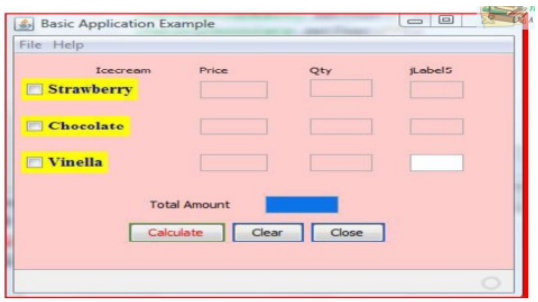
35. Assume the following interface built using Netbeans used for bill calculation of a ice-cream parlor. The parlor offers three verities of ice-cream – vanilla, strawberry, chocolate. Vanilla icecream costs Rs. 30, Strawberry Rs. 35 and Chocolate Rs. 50. A customer can chose one or more ice-creams, with quantities more than one for each of the variety chosen. To calculate the bill parlor manager selects the appropriate check

boxes according to the verities of ice-cream chosen by the customer and enter their respective quantities. Write Java code for the following:

a. On the click event of the button 'Calculate', the application finds and displays the total bill of the customer. It first displays the rate of various ice-creams in the respective text fields. If a user doesn't select a check box, the respective ice-cream rate must become zero. The bill is calculated by multiplying the various quantities with their respective rate and later adding them all.

b. On the Click event of the clear button all the text fields and the check boxes get cleared.

c. On the click event of the close button the application gets closed.



Ans: (a)

```
private void jBtncalculateActionPerformed(java.awt.event.ActionEvent evt)
{
if(jchkStrawberry.isSelected()==true)
jTxtPriceStrawberry.setText("35");
else
{
jTxtPriceStrawberry.setText("0");
jTxtQtyStrawberry.setText("0");
}
if(jChkChocolate.isSelected()==true)
jTxtPriceChocolate.setText("50");
else
{
jTxtPriceChocolate.setText("0");
jTxtQtyChocolate.setText("0");
}
```

```
if(jChkVinella.isSelected()==true)
jtxtPriceVinella.setText("30");
else
{
jtxtPriceVinella.setText("0");
jTxtQtyVinella.setText("0");
}
int r1,r2,r3,q1,q2,q3,a1,a2,a3,gt;
r1=Integer.parseInt(jTxtPriceStrawberry.getText());
r2=Integer.parseInt(jTxtPriceChocolate.getText());
r3=Integer.parseInt(jtxtPriceVinella.getText());
q1=Integer.parseInt(jTxtQtyStrawberry.getText());
q2=Integer.parseInt(jTxtQtyChocolate.getText());
q3=Integer.parseInt(jTxtQtyVinella.getText());
a1=r1*q1;
jTxtAmtStrawberry.setText(""+a1);
a2=r2*q2;
jTxtAmtChocolate.setText(""+a2);
a3=r3*q3;
jTxtAmtVinella.setText(""+a3);
gt=a1+a2+a3;
jTxtTotalAmt.setText(""+gt);
}
```

Ans.(b)

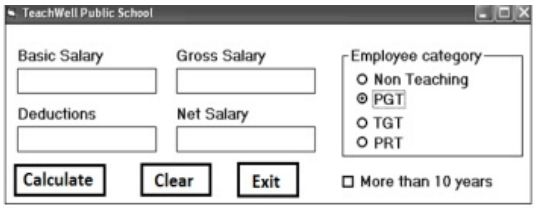
```
private void jBtnClearActionPerformed(java.awt.event.ActionEvent evt)
{
jTxtPriceStrawberry.setText("");
jTxtPriceChocolate.setText("");
jtxtPriceVinella.setText("");
jTxtQtyStrawberry.setText("");
jTxtQtyChocolate.setText("");
jTxtQtyVinella.setText("");
jTxtAmtStrawberry.setText("");
```

```
jTxtAmtChocolate.setText("");
jTxtAmtVinella.setText("");
jchkStrawberry.setSelected(false);
jChkChocolate.setSelected(false);
jChkVinella.setSelected(false);
}
```

Ans: (c)

```
private void jBtncloseActionPerformed(java.awt.event.ActionEvent evt)
{
System.exit(0);
}
```

36. Read the following case study and answer the questions that follow. TeachWell Public School wants to computerize the employee salary section. The School is having two categories of employees : Teaching and Non Teaching. The Teaching employees are further categorized into PGTs, TGTs and PRTs having different Basic salary. The School gives addition pay of 3000 for employees who are working for more than 10 years.



Employee Type	Basic Salary	DA (% of Basic Sal)	HRA (% of Basic Sal)	Deductions (% of Basic sal)
Non Teaching	12500	31	30	12
PGT	14500	30	30	12
TGT	12500	21	30	12
PRT	11500	20	25	12

(a) Write the code to calculate the Basic salary, deductions, gross salary and net salary based on the given specification. Add 3000 to net salary if employee is working for more than 10 years.Gross salary=Basic salary + DA + HRANet salary = Gross salary – deductions

(b)Write the code to exit the application.

(c)Write the code to disable textfields for gross salary, deductions and netsalary.

Ans: (a) double bs=0,da=0,net=0,ded=0,gross=0,hra=0;

```
if (rdnon.isSelected()==true)
{
bs=12500;
da=(31*bs)/100;
hra=(30*bs)/100;
ded=(12*bs)/100;
}
else if (rdpgt.isSelected()==true)
{
bs=14500;
da=(30*bs)/100;
hra=(30*bs)/100;
ded=(12*bs)/100;
}
else if (rdtgt.isSelected()==true)
{
bs=12500;
da=(21*bs)/100;
hra=(30*bs)/100;
ded=(12*bs)/100;
}
else if (rdprt.isSelected()==true)
{
bs=11500;
da=(20*bs)/100;
hra=(25*bs)/100;
ded=(12*bs)/100;
}
gross=bs+da+hra;
net = gross – ded;
if(chk10.isSelected()==true)
```

{
net=net+3000;
}
tfded.setText(“ ”+ded);
tfgross.setText(“ ”+gross);
tfnet.setText(“ ”+net);
tfbs.setText(“ ”+bs);
Ans:(b)
System.exit(0);
Ans:(c)
tfgross.setEditable(false);
tfded.setEditable(false);
tfnet.setEditable(false);

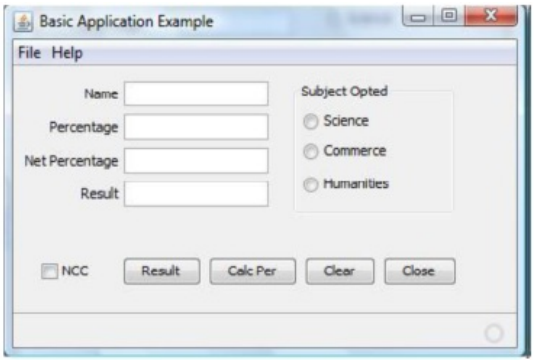
37. ABC School uses the following interface built in java to check the eligibility of a student for aparticular stream from science, commerce and humanities. The user first enters the total percentage and selects the desired stream by selecting the appropriate option button. An additional 5% is marks is given to students of NCC. Write Java Code for the following

a. On Action event of the button ‘Calc Percentage’ Net percentage of the student is calculated and displayed in the appropriate text filed. Net percentage is same as that of the actual percentage if the student doesn’t opts for NCC otherwise 5% is added to actual percentage.

b. On Action event of the button ‘Result’, the application checks the eligibility of the students. And display result in the appropriate text field. Minimum percentage for science is 70, 60 for commerce and 40 for humanities.

c. On the Click event of the clear button all the text fields and the check boxes get cleared.

d. On the click event of the close button the application gets closed.



Ans:

a. private void jBtnCalcPerActionPerformed(java.awt.event.ActionEvent evt)

{

int p;

p=Integer.parseInt(jTextField2.getText());

if (jCheckBox1.isSelected())

p=p+5;

jTextField3.setText(Integer.toString(p));

}

b.

private void jBtnResultActionPerformed(java.awt.event.ActionEvent evt)

{

int p;

p=Integer.parseInt(jTextField3.getText());

if(jRadioButton1.isSelected())

{

if (p>=70)

jTextField4.setText(“Eligible for all subject”);

else

jTextfield4.setText(“Not Eligible for science”);

}

else if(jRadioButton2.isSelected())

{

if (p>=60)

jTextField4.setText(“Eligible for Commerce and Humanities”);

else

```
jTextfield4.setText(“Not Eligible for Science and Commerce”);
}
else
{
if ( p>=40 )
jTextField4.setText(“Eligible for Humanities”);
else
jTextfield4.setText(“Not Eligible for any subject ”);
}
}
c.
private void jBtnClearActionPerformed(java.awt.event.ActionEvent evt)
{
jTextField1.setText(“ “) OR jTextField1.setText(null)
jTextField1.setText(“ “) OR jTextField1.setText(null)
jTextField1.setText(“ “) OR jTextField1.setText(null)
jTextField1.setText(“ “) OR jTextField1.setText(null)
jCheckbox1.setSelected(false);
}
d.
private void jBtnCloseActionPerformed(java.awt.event.ActionEvent evt)
{
System.exit(0);
}
```

Important Questions Part-3

JAVA GUI PROGRAMMING REVISION TOUR – III [Methods etc.]

---

1. In java, methods reside in _____.

(a) Function (b) Library (c) Classes (d) Object

Ans: (c) Classes

2. The number and type of arguments of a method are known as _____.

(a) Parameter list (b) Calling (c) Definition (d)None to these.

Ans: (a) Parameter list

3. The first line of method definition that tells about the type of return value along with number and

type of arguments is called_____.

(a) Class (b) Object (c) Prototype (d) Datatype

Ans: (c) Prototype

4. A member method having the same name as that of its class is called_____method.

(a) Destructor (b) Constructor (c) Object (d) Variable

Ans: (b) Constructor

5. A constructor method has_____return type.

(a) float (b) void (c) no (d) int

Ans: (c) no

6. A_____constructor takes no arguments.

(a) Copy constructor (b) Non-Parameterized constructor (c) Parameterized constructor

Ans: (b) Non-Parameterized constructor

7. A_____constructor creates objects through values passed to it.

(a) Copy constructor (b) Default constructor (c) Parameterized constructor

Ans: (c) Parameterized constructor

8. The keyword_____refers to current object.

(a) void (b) goto (c) this (d) null

Ans: (c) this

9. Define a method. What is method prototype and signature?

Ans:A message to an object is a call to the object's method requesting that it performs some

specified action.

```
int absval(int a) {
return(a<0?-a:a);
}
```

The first line of the method definition is the prototype of the method i.e. the prototypes of method
defined above is:

```
int absval(int a)
```

10. How are following passed in Java: (i) primitive types (ii) reference types?

Ans: (i) By Value (ii) By reference

11. The String objects being reference types are passed by reference but changes, if any, are not reflected back to them. Why?

Ans: The String objects are immutable in Java, which means once they are created, the cannot
changed. That is why, even though Strings are passed by reference, they cannot be changed.

12.At what time is the constructor method automatically invoked?

Ans: Every time an object is created, the constructor method is automatically invoked.

13. What are Composite and user defined data types?

Ans: The data types that are based on fundamental or primitive data types, are known as Composite Datatypes. Since these data types are created by users, these are also known as User Defined Datatypes.

14. Can you refer to a class as a composite type/ user-defined type?

Ans: Yes, class is referred to as a composite type/user defined type.

15.How is a constructor invoked?

Ans: A constructor is automatically called with a new operator in order to create a new object.

16. Which method of a class is invoked just once for an object? When?

Ans: The constructor method. It is invoked for initializing values of the object at the time of its creation.

17. Passing the address means call by value or call by reference?

Ans: Call by reference.

18. What's wrong with the following constructor definition for the class PlayInfo?

```
public void PlayInfo( int sticks)
```

{

nsticks = sticks;

}

Ans: A constructor cannot have a return type, not even void.

19. How many values can be returned from a method?

Ans: Only one value can be returned from a method though a method can have multiple return statements but only one gets executed which is reached first and thus returns the value.

20. What do you understand by Class and Object?

Ans: The basic unit of OOP is the Class. It can be described as a blue print of Objects. In other words, an Object is an instance of a class. A JAVA program may have various class definitions.

An Object is an entity having a unique Identity, characteristics (Properties) and Behavior (Methods).

21. How to declare a class in Java?

Ans: In Java a Class is declared/definedby using class keyword followed bya class name.

For example:

public class Student

{

String Name;

int RollNo;

String FName;

String DOB;

void getAdmission()

{.....

.....

}

oid getTransfer()

{.....

.....

}

oid feeDeposit()

{ .....

.....

}

}

22. What is the difference between instance and static variable?

Ans: Instance Variable- These data member are created for every object of the class i.e. replicated with objects.

Class variable (static)- These data members that is declared once for each class and all objects share these members. Only a single copy is maintained in the memory. These are declared with static keyword.

23. What do you understand by constructor in OOP?

Ans: A Constructor is a member method of a class, used to initialize an Object, when it is created
(instantiated).

24.What are the properties of Constructor?

Ans: There are some properties of constructor:

• A Constructor must have the same name as the class name and provides initial values to its data members.

• A constructor have no return type not even void.

• JAVA automatically creates a constructor method, if it is not defined with default values.

25.What do you understand by methods? What are the advantages of methods?

Ans: Definition: A Method or function is sequence of statement which are written to perform a specific job in the application. In Object Oriented Programming, Method represents the behavior of the object. A message can be thought as a call to an object's method.

The following three advantages/reasons describes that why we use methods.

To cope with complexity: When programs become more complex and big in size, it is best technique to follow "Divide and conquer" i.e. a complex problem is broken in to smaller and easier task, so that we can make it manageable. Some times it is also called Modularization.

Hiding Details: Once a method is defined, it works like a Black-box and can be used when required, without concerning that "How it Works?"

Reusability of code: Once a method is implemented, it can be invoked or called from anywhere in the program when needed i.e. Method can be reused. Even a packaged method may be used in

multiple applications. This saves our time and effort. Most of the method like Math.sqrt() is available as ready to use which can be used anywhere in the application.

26. How to define a method?

Ans: A method must be defined before its use. The method always exist in a class. A Java Program must contain a main() method from where program execution starts. The general form of defining method is as-

[Access specifier]<return_type> <method_name>(<parameter(s)>)

{..... ;

body of the method i.e. statement (s);

}

Access Specifier: It specified the access type and may be public or protected or private.

Return Type: Specifies the return data type like int, float etc. Void is used when nothing is to be returned.

Method Name: Specified the name of method and must be a valid Java identifier.

Parameters List:-It is list of variable(s), also called Formal Parameter or Argument, which are used to catch the values when method is invoked. Also a method may have no parameters.

27.What are the way to pass values to methods in Java?

Ans: You can pass arguments (Actual parameters) to method (Formal Parameters) using valid data types like int, float, byte, char, double, boolean etc. or Reference data type like Object and

Arrays. A method can called in two ways –

Call by Value: In this method, the values of Actual parameters are copied to Formal parameters, so any changes made with Formal parameters in Method's body, will not reflected back in the calling function. The original value of Actual parameters is unchanged because the changes are made on copied value.

Call by Reference:

In Reference method, the changes made on the formal parameters are reflected back in the Actual parameters of calling function because instead of values, a Reference (Address of Memory location) ispassed. In general, all primitive data types are passed by Value and all Reference types (Object, Array) are passed by Reference..

28. Differentiate between constructor and method.

Ans: Though Constructor are member method of the class like other methods, but they are

different from other method members- Constructor creates (initializes) an Object where a method is a group of statements which are packaged to perform a specific job. Constructor has no return type, even void also. Whereas method may have any return type including void. The Constructor has the same name as Class, but method may have any name except Class name.

It is called at the time of object creation, but a method can be called any time when required.

29. What is "this" keyword?

Ans: As you are aware that static data and method members of a class is kept in the memory in a single copy only. All the object are created by their instance variables but shares the class variables (static) and member methods.

```
public class test
{ int x, y;
static int z;
static method1()
{.....}
static method2()
{.....}
}
```

Suppose method2() is changes X data member, then big question arises that which object's x variable will be changed? This is resolved by using 'this' keyword. The keyword 'this' refers to currently calling object. Instead of using object name, you may use 'this' keyword to refer current object. Ex. **this.method2()**

30. How can we use a class as a composite data type?

Ans: Since a class may have various data members of primitive data types like int, float, long etc. In general class may be assumed as a bundle of primitive data types to make a user-defined composite data type.

```
// use of class as composite data type
class date
{ byte dd, mm, yy;
public date( byte d, byte m, byte y)
{ dd= d;
mm= m;
yy= y;
```

```
} v
oid display()
{system.out.println(“”+dd+”/ ”+mm+”/ ”+yy);
}
};
date DOB = new date(13,2,1990);
```

Important Questions Part-4

MORE ABOUT CLASSES AND LIBRARIES

1. Which keyword can protect a class in a package from accessibility by the classes outside the package?
(a)private (b)protected (c) final (d) None of these
Ans: (d) None of these.
2. We would like to make a member of a class visible in all subclasses regardless of what package they are in. Which one of the following keywords would achieve this?
(a)private (b)protected (c) final (d) public (e) None of these
Ans: (b) protected.
3. Which of the following keywords are used to control access to a class member?
(a) default (b) abstract (c)protected (d) interface (e) public.
Ans: (c) and (e) public
4. The public members of objects are accessed through which operator.
(a) arrow (b) dot (c) this (d) none of these
Ans: (b) dot
5. The private members are accessible only inside their _____class.
(a) own (b) sub (c) super (d) none of these
Ans: (a) own
6. Which command is used to import packages and their classes?
(a) include (b) import (c) public (d) inline
Ans: (b) import
7.Which statement is used to create a package in Java?
(a) Class (b) super (c) this (d) package
Ans:(d) package
8. In Java, all strings are objects?
(a) True (b) False (c) don't say
Ans: (a) True
9. What do you understand by Package in Java?
Ans: A group of classes is called package

10.Given a package named EDU. Student, how would you import a class named Test contained in this package? Write one line statement.

Ans: import EDU.Student.Test;

11. What will be the output of the following code

StringBuffer city = new StringBuffer(“Madras”);

StringBuffer string = new StringBuffer();

string.append(new String(city));

string.insert(0,”Central”);

string.out.println(string);

Ans: CentralMadras.

12. Give the output of the following program:

class MainString

{ public static void main(String agrs[])

{ StringBuffer s = new StringBuffer(“String”);

if(s.length() > 5) && (s.append(“Buffer”).equals(“x”);

System.out.println(s);

}

}

Ans: StringBuffer.

13. What is the output of the following code fragment if “abc” is passed as argument to the func()?

Public static void func(string s1)

{

String s = s1 + “xyz”;

System.out.println(“s1=” + s1);

System.out.println(“s = “ +s);

}

Ans: s1= abc

s =abcxyz

14.What are the access specifiers in Java? Expalin.

Ans: The Access Specifiers control access to members of class from / within Java Program. Javasupports various Access Specifiers to control the accessibility of class members.

Private : A variable or method declared as private, may not be accessed outside of the class.

Only class member can access them, since they are private to others.Protected: Protected members can be accessed by the class members and subclasses (derived classes) and current package, but they are not accessible from beyond package or outside.Public: Class members declared as public, are accessible to any other class i.e. everywhere , since they are public.Package (default): If no any specifier is mentioned, default or friendly access is assumed. Class member may be accessed by any other Class members available in the same package, but not accessible by the other classes outside the package, even subclasses.

15. What do you meant by private, public, protected, package(friendly) access specifiers?

Ans: Private Access Specifier Members declared as private are accessible by the members of the same class, since they are private. A private key word is used to specify.

//e.g to demonstrate private specifier.//

```
class abc
{ private int p;
private void method1()
{ p=10;
system.out.print("I am Private method");
}
}
class xyz
{.....
void method2()
{ abc x = new abc();
x.p =10;
x.method1() ;
}
}
```

Protected Access Specifier

Protected members are accessible by all the classes in the same package and sub-classes (same of different packages). A protected key word is used to specify.

```
Package mypackage;
class abc
{ protected int p;
```

```
protected void method1()
{ p=10;
system.out.print(“Protected
method”);
}
}
class xyz
{.....
void method2()
{ abc x = new abc();
x.p =10;
x.method1() ;
}
}
```

Lets another Package…

```
package yourpackage;
import mypackage.*;
class pqr extends abc
{ void method3()
{ abc x=new abc();
pqr y=new pqr();
x.p=10;
x.method1();
y.p=10;
y.method1();
}
}
```

Public Access Specifier

Public Members can be access at anywhere i.e. same or different package. A public key word is used to specify.

```
packagemypackage;
class abc
{ public int p;
```

```
public void method1()
{ p=10;
system.out.print(“Public method”);
}
}
package yourpackage;
import mypackage.* ;
class xyz
{.....
void method2()
{ abc x = new abc();
x.p =10;
x.method1() ;
}
}
```

Package (friendly) Access Specifier

If no specifier is explicitly specified, Java assumes default (friendly) access i.e. all the members are accessible in all other classes of the same package only, since they are trusted or friends. This is called Package level access. No any key word is used to specify default access.

```
package mypackage;
class abc
{ int p;
void method1()
{ p=10;
system.out.print(“Package method”);
}
}
class xyz
{.....
void method2()
{ abc x = new abc();
x.p =10;
```

x.method1() ;
}
}

16. What do you understand by Library in Java?

Ans: A library is readymade and reusable component/codes that can be used in a program to perform predefined task.Some commonly used Java libraries are Math Library, String Library, Utility Library and IO Library etc.You can use import statement at the top of the program to include the Java libraries.import java.io.*;The java.lang is the default imported library in your program without writing import statement. String Library & its commonly used methods

1 .boolen equals(str) - Compare this (current) string to given string and returns true if both are

true otherwise false. e.g. boolean test=str1.equals(str2);

2. int compareTo(str1,str2) - Compare two strings in alphabetical order. boolean equalsIgnoreCase(str) - Compare this string to given string but ignores case difference.

3. int length() -Returns the length of this string. e.g. int x=str1.length();

Math Library & its commonly used methods Java provides math library, which available under java.lang package. In order to use functions/methods of math library, you need to invoke function using math keywords before the function. e.g. x=math.abs(-7.5);

1. pow(num1,num2) - It computes num1 num2 , where num1 and num2 are numbers.

e.g. syste.out.print(“”+math.pow(2,3);

2. round(num1) - It rounds off a given number to its nearest integer. It can take float/double as

argument. e.g.

system.out.print(“”+math.round(1.5)); 2

system.out.print(“”+math.round(-1.5)); -1

Using Dates & Times in JAVA

Java offers two classes in java.util package to manipulate date and time.

1. java.util.Date 2. java.util.Calendar

In order to use Date & calendar, you need to import java.util package. E.g. import java.util.*;

Date d=new Date(); -It returns system date in the given format.

Tue Jul 20 17:30:22 GMT+05:30 2010

Important Questions Part-5

CONCEPT OF INHERITANCE IN JAVA

---

1. What is inheritance ?

Ans: Inheritance is a form of software reusability in which new classes are created from existing classes by absorbing their attributes and behaviours.

2. What is the primary purpose of inheritance ?

Ans: The primary purpose of inheritance is code reusability.

3. Name three basic concepts in Java which are used in Object oriented programming.

Ans: The three basic concepts are Classes , Objects and inheritance.

4. Which constructor is called first: subclass or superclass ?

Ans: A subclass constructor always calls the constructor for its superclass first explicitlyor implicitly to create and initialize the subclass members.

5. What is abstract class?

Ans: An Abstract class is the one that simply represents a concept and whose objects can't be created. It is created through the use of keyword abstract. The superclass set up as an abstract class does not allow objects of its prototype tobe created. In this case only objects of the subclass are used.

6. What is method overriding in Java?

Ans:A method in a subclass hides or overshadows a method inherited from the superclass if both methods have same signature.(i.e. the same name, number and type of arguments and the same return type.) This property is known as Overriding the Inherited method.

7. What is an Interface in Java?

Ans: An Interface defines a protocol of behaviour or it is a collection of constants and abstract methods. These are not classes, but they can be used in the definition of a class.

8. What is the significance of abstract class in Java program?

Ans: When a class defines a method using the same namem return type, and arguments as a

method in its superclass, the method in the class overrides the method in the superclass. When the method is invoked for an object of the class, it is the new definition of the method that is called, and not the method definition from superclass. Methods may be overridden to be more public, not more private.

9. What types of inheritance does Java have?
Ans: Java supports only these inheritance types:
i. Single inheritance ii. Multilevel inheritance iii. Hierarchical

10. State True and False
a. A subclass inherits both member variables and member methods of superclass.
b. A class created with keyword abstract can have at the most one object.
c. Overloading and Overriding are similar concepts in Java.
d. Java supports single inheritance only at multiple levels of inheritance.
e. Interfaces are used for multiple inheritance.
Ans: a. True b. False c. False d. True e. False

11. Declare and explain the basic syntax of inheritance.
Ans: The basic syntax for specifying an inherited class is as:
class child_class extends parent_class {
// class contents
}
The syntax represents the definition of the class child_class. The child_class automatically inherits an initial set of methods and variables from the parent class. The inherited variables and method can be used by the child class as if they had been declared locally in the child_class.

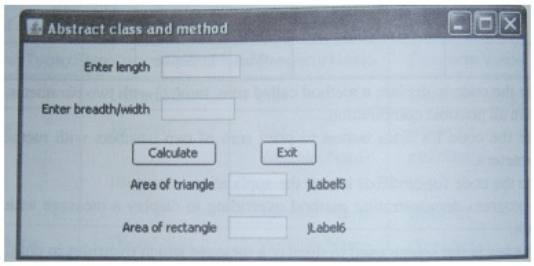
12. How does inheritance support software reuse?
Ans:Because a new class can be derived from an existing one, the characteristics of the parent class can be reused without the erroneous process of copying and modifying code.

13. Differentiate between method overloading and method overriding.

Ans: Overloading: The methods with the same name but it differ by types of arguments and number of arguments. Overriding: The methods with the same name and same number of arguments and types but one is in base class and second as in derived class. Derived class

overrides over base class.

14. Write a program to find the area of triangle and rectangle through abstract class and abstract class method.The following is the screen used to find the area of triangle and rectangle using abstract class and abstract class methods:



The list of controls for the above form is as follows:

Control Type	Control Name	Property Name	Property Value
JFrame	AbstractU1	Title	Abstract class and method
JTextField	JTextFIeld1	Text	[None]
		Variable Name	txtL
	JTextFIeld2	Text	[None]
		Variable Name	txtH
	JTextFIeld3	Text	[None]
		Variable Name	txtAreaT
	JTextFIeld4	Text	[None]
		Variable Name	txtAreaR
JButton	JButton1	text Variable Name text Variable Name	Calculate cmdCalc Exit

a) Write the code to declare an abstract class Figure with an abstract method area( ). Notice that the class should declare the possible variables for area operation.
b) Write the code to declare two classes called Rectangle and Triangle which will calculate the area for both rectangle and triangle using the abstract method area( ). Use suitable constructors for both classes.
c) Write the code for Calculate button to access the abstract method for both triangle and rectangle.

d) Write the code for cmdExit to exit the application.

Ans: a) abstract class Figure {

double L;

double BH;

Figure(double a, double b){

L= a;

BH = b;

}

Abstract double area( );

}

b) class Rectangle extends Figure {

Rectangle (double a, double b){

super(a, b);

}

double area( ) {

jLabel5.setText(“ Inside Area of Rectangle. “);

return L* BH;

}

}

Class Triangle extends Figure {Traingle (double a, double b) {

Super(a, b);

}

double area( ) {

jLabel6.setText(“Inside Area for Triangle.”);

return L * BH /2;

}

}

c) int len, heigh;

len = Integre.parseInt(txtL.getText());

heigh= Integre.parseInt(txtH.getText());

Rectangle r = new Rectangle (len, heigh);

Triangle t = new Triangle (len, heigh);

Figure F;

F=r;

txtAreaR.setText(String.valueOf(F.area( )));

F= t;

txtAreaT.setText(String.valueOf(F.area( )));

d) System.exit(0);

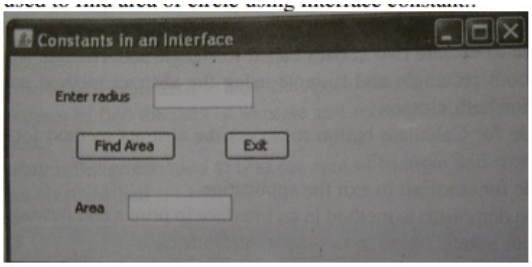
15. Write a program to demonstrate constant in an interface to find the area of circle. Notice that the interface should declare the value of pie as a constant. That is:

interface valuePie {

double PIE= 3.14;

}

Using class, implement the interface constant and find the area of circle. The following is the screen used to fi0nd area of circle using interface constant.:



Control Type	Control Name	Property Name	Property Value
JFrame	IntAreaUi	Title	Constant in an Interface
JTextField	JTextField1	text	[None]
		Variable	txtR
	JTextField2	Name	[None]
		text	txtArea
		Variable	
		Name	
JButton	JButton1	text	Find Area
		Variable	cmdArea
		Name	Exit
		text	cmdExit
		Variable	
		Name	

a) Write the code to declare an interface for constant with implementation class method area().

b) Write the code for FindArea button to acecess the abstract method and display the area of circle in textbox.

c) Write the code for cmdExit to exit to exist the application.

Ans: a) interface valuePie {

double PIE=3.14;

}

class cArea implements valuePie {

public double area (float r){

return (PIE *r*r);

}

}

b) float r = Float.parseFloat(txtR.getText( ));

cArea C = new cArea ( );

txtArea.setText (String.valueOf (C.area( )));

c) System.exit(0);

Important Questions Part-6

GUIDIALOGS AND TABLES

1. What is dialog in Java?

Ans: A dialog is a small separate window that appears to either provide or request to from the user.

2. Write the import statement required for using JOptionPane class.

Ans: import javax.swing.JOptionPane;

3. What is showConfirmDialog ( ) method of JOptionPane class do ?

Ans: This method displays a dialog with several buttons and returns as int option type corresponding to the button pressed (mostly one from Yes, No or Cancel)

4. What is showInputDialog ( ) method of JOptionPane class do ?

Ans: This method displays a dialog which is intended to receive user input, and returns a String if the input component is a text field. It displays two buttons : OK and Cancel.

5. What is the difference between a dialog created with JDialog and a dialog created with JOptionPane?

Ans: The dialog created with JDialog can be customised in any form the user wants. Also with JDialog, a window's default cloasing behaviour is available with minimize, maximaize and close buttons. A dialog created with JOptionPane can be one of the four pre-defined styles. Also, it only offers a close button for window closing.

Important Questions Part-7

JAVA DATABASE CONNECTIVITY TO MYSQL

1. What is the importance of java.sql.*; in java jdbc connection ?

Ans: The java.sql.package has to be imported first before we can create a java jdbc connection to the database.

2. What is DriverManager ?

Ans: DriverManager a class of java.sql package that controls a set of JDBC drivers. Each driver has to be registere with this class.

3. What is the purpose of connection.close() method?

Ans: This method is used for disconnecting the connection. It frees all the resources occupied by the database.

4. Name the four components of JDBC.

Ans:JDBC consisits of four components: The JDBC API, JDBC Driver Manager, The JDBC Test Suite and JDBC-ODBC Bridge.

5. What are the steps involved in establishing a connection?

Ans: To establishing a connection we need to follow two steps: a) loading the driver and b) making a connection.

6. What is ResultSet ?

Ans:A result set (represented by a ResultSet object) refers to a logical set of records that are fetched from the database by executing a query and made available to the application program.

7. What type of parameter that used in executeQuery( ) method?

Ans: The executeQuery( ) method has a single String parameter. This parameter must be valid SQL command.

8. What is Connection? What is its role?

Ans: A Connection (represented through Connection object) is the session between the application program and the database. To do anything with database, one must have a connection object.

9. What all JDBC classes/objects are used in a database connectivity application?

Ans: a) DriverManager Class b) Connection Object c)Statement Object

d) ResultSet Object

10. What is JDBC? What is its basic functionality?

Ans: The JDBC(Java Database Connectivity) API defines interfaces and classes for writing database applications in Java by making database connections. Using JDBC we can send SQL, PL/SQL statements to almost any relational database. JDBC is a Java API for executing SQL statements and supports basic SQL functionality. It provides RDBMS access by allowing us to embed SQL inside Java code. Because Java can run on a thin client, applets embedded in Web pages can contain downloadable JDBC code to enable remote database access.

11. What is the JDBC-ODBC Bridge?

Ans: The JDBC-ODBC Bridge is a JDBC driver which implements JDBC operations by translating them into ODBC operations. To ODBC it appears as a normal application program. The Bridge implements JDBC for any database for which as ODBC driver is available. The Bridge is implemented as the sun.jdbc.odbc Java package and contains a native library used to access ODBC.

12. Explain the purpose of DriverManager.

Ans: The DriverManager looks after the managing the drivers for a JDBC application. When it is instantiated it makes an attempt to load the driver classes. When the method getConnection( ) is invoked, the driver manager attempts to locate the suitable driver. The DriverManager obtains the information about the drivers such as registering, locating, finding the drivers loaded, setting the time to wait when it tries to get the connection to a database.

13. Name the methods which are useful for executing SQL statements.

Ans: There are two methods which are responsible for executing SQL statements. These are:

• executeQuery( )- For SQL statements that produce a single result set (like simple SQL query).

• executeUpdate( )- For executing INSERT,UPDATE OR DELETE statements and also SQL DDL(Data Definition Language) statements.

Important Questions Part-8

WEB APPLICATION DEVELOPMENT

1. Identify the web browser software from the following options:
(a) Apache Web Server (b) MS Word (c) HTML (d) Mozilla Firefox
Ans. (d) Mozilla Firefox
2. A_____ document is created by web server whenever a browser requests the documents.
(a) active (b) static (c) dynamic (d) none of the above
Ans. (c) Dynamic
3. A_____ document is a fixed content document that is created by web server whenever a browser requests the documents.
(a) active (b) static (c) dynamic (d) none of the above
Ans. (b) Static
4. Identify the web server software from the following options:
(a) Apache (b) MS Word (c) HTML (d) Mozilla Firefox
Ans. (a) Apache
5. The address of a resource on the net is known as:
(a) ISP (b) HTTP (c) URL (d) WWW
Ans. (c) URL
6. A program that serves requested HTML files and pages.
(a) Web Address (b) Web Page (c) Web Server (d) None of these
Ans. (c) Web Server
7. What is Uniform Resource Locator?
Ans: The uniform resource locator (URL) is the unique identifier of a web page. The addres or URL of the current page you are on appears in the "Address Bar" of the web browser. You can go directly to a web page if you know its URL by simply typing the URL in the address bar. You can click in the address bar at any time and overwrite the current address with another URL to jump to a different web page.The most general form of a URL syntax is as follows: Protocol://domain name/<directory path>/<object name>
For example:

http://www.openoffice.org/dev_docs/features/3.2/rc2.html

8. What is Web Server?

Ans: Web server delivers (serves) content, such as web pages, using the Hypertext Transfer Protocol (HTTP), over the World Wide Web.

9. What is Web Browser?

Ans: A web browser is a client that initiates communication by making a request for a specific resource. The server then responds with the content of that resource, or an error message if unable to do provide the contents due to any reason.

Important Questions Part-9

HTML-I : BASIC HTML ELEMENTS

1. HTML tags must be written within:

(a) < > (b) { } (c) [ ] (d) ( )

Ans: (a) <>

2. Which of the following is the correct structure of HTML tags?

(a) < HTML> </HTML> <HEAD> </HEAD> <BODY> </BODY>

(b) <HTML> <HEAD> </HEAD> </HTML> <BODY> </BODY>

(c) <HTML> <HEAD> <BODY> </BODY> </HEAD> </HTML>

(d) <HTML> <HEAD> </HEAD> <BODY> </BODY> </HTML>

Ans: (d) <HTML> <HEAD> </HEAD> <BODY> </BODY> </HTML>

3. What is HTML?

Ans: HTML stands for Hyper Text Markup Language. It is a markup language used to create HTML documents. An HTML document defines a web page.

4. Define <html> tag

Ans: The <html> tag identifies the document. An HTML document begin with <html> ends with </html>.

5. Give differences between HTML and XML.

Ans: The differences between HTML and XML are:

1. HTML is designed to display data and hence, focussed on the 'look' of the data, whereas XML is designed to describe and carry data and hence, focuses on 'what data is'.
2. In HTML tags are predefined, while in XML, tags can be created as per needs.
3. HTML tags are not case sensitive, whereas XML tags are case sensitive

Important Questions Part-10

HTML-II : LISTS, TABLES AND FORMS

1. What is an unordered list?

Ans: Bulleted/unordered list <ul> tag is used to indicate a list item as contained in an unordered or bulleted form.

2. What is ordered list?

Ans: The numbered/ordered list <ol> tag is used to indicate a list item as contained in an ordered or numbered form.

3. What is table? What are the basic commands for creating a table?

Ans: Table is a collection of rows and column.

Followings are important tags

<table> :- used to give identification to a table

<th> :- To provide headings in a table

<tr>:- (Table Row) to create Row in a table

<td> :- (Table Data) to create columns in a row

4. What do you understand by ALINK? Explain with an example.

Ans: Links which are currently being visited in web page are known as Active Links (ALINK).

Example:

<BODY TEXT = “#FFFFFF” ALINK=”#FF0000”>

<A HREF=”www.kvsangathan.nic.in”> Kendriya Vidyalaya Sangathan </A>

<A HREF = www.cbse.nic.in> Central Board of Secondary Education </A>

</BODY>

5. What is FORM tag? Explain with example.

Ans: To create or use forms in a web page <FORM> tag is used. Form is means to collect data from the site visitor. It is done with the help of controls that collect data and send it over.

Example:

<FORM method = “POST” action=submitform.asp>

6. What is INPUT tag? Explain with example.

Ans: Text boxes are single line text input controls that are created using <INPUT> tag whose TYPE attribute has a value as “Text”.

Example:

<FORM method = “POST” action=submitform.asp>

First Name:

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<INPUT TYPE=”text” NAME = “fname”/>

Last Name:

<INPUT TYPE=”text” NAME = “lname” />

</FORM>

7. What is the purpose of select tag?

Ans: <SELECT> tag is used to create a drop down box in which many options are available; user can make selection from the list.

Example:

<SELECT name = “stream”>

<OPTION value=”Science”> Science</OPTION>

<OPTION value=”Commerce”> Commerce </OPTION>

<option value=”Humanities”> Humanities </OPTION>

</SELECT>

Important Questions Part-11

Exentensible Markup Language

1. XML expand to_____

Ans. - eXtensible Markup Language

2. An XML document has a logical structure and a _____ structure.

Ans. -Physical

3. First generic markup language is

Ans- SGML

4. CSS means

(a) Colored system software (b) combined style sheet

(c) Colored style sheet (d) cascading style sheet

Ans.–(d)

5. XML is case sensitive(T/F)

Ans. -T

6. Define DTD?

Ans. -DTD is a set of rules that defines what tags appear in an XML document.

7. To link an XML document with a style sheet

(a) Create XML document (b) create a separate CSS stylesheet for XML file

(c) Link the two files (d) All of the above

Ans. -All of the above

8. Two important software that validates or process XML documents are

(a) XML validator (b) XML Parser (c) both (a) and (b) (d) None of these

Ans.-(c)

9. I enclose all other elements of an XML document. Who am I?

(a) Processing Instruction (b) Parsed data (c) Root data (d) Attribute

Ans. - Root data

10. XML documents can be viewed as web page properly if proper stylesheet file is also available along with XML file.(T/F)

Ans.-T

11. The XML file confirming to syntax rules or grammar rules is called

(a) Correct document (b) valid document

(a) Correct document (b) valid document

(c) Well-formed document (d) confirmed document

Ans. - well-formed document

12. What is markup language?

Ans.-A markup language is a set of rules/tags that defines the structure and format of text while presenting text.

13. What is XML?

Ans. - XML is eXtensible Markup Language which allows creating application specific structured document by allowing creation of new tags. These structured documents can later be presented in human-understandable manner in different ways.

14. Expand the following terms

(i) XML (ii) EDI (iii) CSS (iv) DTD

Ans.-(i) XML-extensible Markup Language

(ii) EDI-Electronic Data Interchange

(iii) CSS- Cascading Style Sheet

(iv) DTD- Document Type Definition

15. Compare HTML and XML briefly

Ans. - HTML versus XML

	HTML	**XML**
Definition	Markup language for displaying web pages in a web browser. Designed to display data with focus on how the data looks	Markup language defines a set of rules for encoding documents that can be read by both humans and machines. Designed with focus on storing and transporting data.

Date when invented	1990	1996
Type	Static	Dynamic
Usage	Display a web page	Transport data between the application and the database. To develop other mark up languages.
Processing/Rules	No strict rules. Browser will still generate data to the best of its ability	Strict rules must be followed or processor will terminate processing the file
Language type	Presentation	Neither presentation, nor programming
Tags	HTML tags are predefined	Custom tags can be created by the author
White Space	Cannot preserve white space	Preserves white space

16. Describe features of XML

Ans. - Features of XML:

1. XML is designed to carry data not to display data.
2. XML was created to structure, store and to send information.
3. XML is self-descriptive. Tags are not pre-defined; rather they are created to describe the content in appropriate manner.
4. XML is free and extensible.
5. XML is platform independent.
6. XML can separate Data from HTML. XML stores and describes data, which can later be formatted and presented in desired way.
7. XML can be used to create new languages, since it is a Meta language.
8. XML is supported and recommended by World Wide Web Consortium (W3C).