

**Sample Paper – 2014**  
**Class – XII**  
**Subject – Multimedia & Web Technology**

Series : SKD/1

Code No. 89/1

Roll No.

Candidates must write the Code on the title page of the answer-book.

- Please check that this question paper contains -- printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer –book by the candidate.
- Please check that this question paper contains 7 questions.
- **Please write down the Serial number of the question before attempting it.**
- 15 minutes time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the student will read the question paper only and will not write any answer on the answer script during this period.

*Time allowed : 3 hours]*

*[Maximum Marks :70*

Note : This is a question Bank based on CBSE pattern .

**Topic : Database & Multimedia (CBSE Question no. 1)**

1.

**a) What is a table wizard in Access ?**

**Answer** a).. Table wizard is a method of creating table in Microsoft Access with the help of step by step dialogue windows. It helps in suggesting table structures and field name.

**b) What is the significance of database?**

**Answer** b).. significance of database

- i. to reduced data redundancy
- ii. to share the data among all other users
- iii. inconsistency can be avoided
- iv. integrity can be maintained

**c) What is the difference between Number and date data types ?**

**Answer** c)..

| Number   | Date   |
|--|--|
| User can calculate or update and end enter numeric value | Not more than 8 digit                                      |
| It can be in decimal                                     | Can enter system date, contains date and time information. |

**d) Name the following:**

[www.cbseguess.com](http://www.cbseguess.com)

Other Educational Portals

[www.icseguess.com](http://www.icseguess.com) | [www.ignouguess.com](http://www.ignouguess.com) | [www.aipmtguess.com](http://www.aipmtguess.com) | [www.aieeeguess.com](http://www.aieeeguess.com) |  
[www.niosguess.com](http://www.niosguess.com) | [www.iitguess.com](http://www.iitguess.com)

- The MS-Access view in which we can define the fields, their data types and their input masks.
- The number of fields in a relation.
- A data type which can be used to automatically store monetary values with appropriate sign, commas and decimals.
- The view in which we can add, edit and view records in MS-Access.
- A part of the Microsoft Office suite that is used to create and manage databases

**Answer d)..**

- Design View
- Degree
- Currency
- Datasheet View
- Ms Access

**e) Define DBMS. Name any two software used to manage database.**

**Answer e)..**

**Definition:** A software that allows a computer to perform database functions of storing, retrieving, adding, deleting and modifying data. Relational database management systems (RDBMS) implement the relational model of tables and relationships.

**Examples:**

Microsoft Access, MySQL, Microsoft SQL Server, Oracle

**f) Latest Hit Station library stores data of all available DVDs on its server in a table named HitMovies in MS Access. HitMovies given below and answer the following questions:**

**TABLE : HitMovies**

| MID | MName              | Director           | ReleaseDate | Releasing Company |
|-----|--------------------|--------------------|-------------|-------------------|
| M01 | London Dreams      | Vipul Shah         | 10/08/09    | Joshua            |
| M02 | Wake Up Sid        | AyaanMukherjee     | 19/08/09    | Trinayan          |
| M03 | What's Your Rashee | Ashutosh Gowariker | 18/08/09    | Harem             |
| M04 | Aladdin            | Sujoy Ghosh        | 15/08/09    | Chahata           |

- Name the field which can act as the primary key in the table HitMovies.
- If the Release details of the movies has to stored in a separate table(named RELEASE) , then identify any two fields from the above table which should be included in the table RELEASE.
- What type of relationship exist between the table HitMovies and the newly created table RELEASE?

**Answer f)..**

- a.. MID
- b.. MID , ReleaseDate
- c.. One to one

**g) Identify the following views used to create a database in Access.**

**Table : SENDER**

| Senderid | Name         | Address   | City      | Add New Field |
|----------|--------------|-----------|-----------|---------------|
| nd01     | S. Saxena    | sec 21b   | Faridabad |               |
| mu02     | Bhawana Ahuj | Ram Nagar | Roorkee   |               |
| mu15     | Sushma       | Jal Nigam | Srinagar  |               |
|          |              |           |           |               |

**Table: RECIPIENT**

| Recid | Senderid | recname | recaddress | Add New Field |
|-------|----------|---------|------------|---------------|
| ko05  | nd01     | usha    | Faridabad  |               |
| ko01  | mu15     | Anandi  | Dobhri     |               |
| ko19  | nd50     | pushkar | Augustmuni |               |

1. Identify the above views used to create a database in Access.
2. Identify any one data item from the table RECIPIENT.
3. Identify a tuple from the table SENDER.
4. Name the foreign key for the table RECIPIENT.
5. Mention the cardinality of the table SENDER.
6. What type of relationship will exist between these two tables?

**Answer g)..**

- 1.. Datasheet View
- 2.. ko05
- 3.. nd01 , S.Saxena , sec 21b , Faridabad
- 4.. Senderid
- 5.. 3
- 6.. one to one

**h) Identify the following views used to create a database in Access.**

**Table : SENDER**

| Field Name | Data Type  |
|------------|------------|
| ID         | AutoNumber |
| Senderid   | Text       |
| Name       | Text       |
| Address    | Text       |
| City       | Text       |

**Table: RECIPIENT**

| Field Name | Data Type  |
|------------|------------|
| ID         | AutoNumber |
| Recid      | Text       |
| Senderid   | Text       |
| recname    | Text       |
| recaddress | Text       |

1. Identify the above views used to create a database in Access.
2. Identify any one data item from the table RECIPIENT.
3. Identify an attribute from the table SENDER.
4. Name the foreign key for the table RECIPIENT.
5. Mention the degree of the table SENDER.
6. What type of relationship will exist between these two tables?

**Answer** h)..

- 1.. Design View
- 2.. 1 (note : as data item is not visible in design view but it is understood that ID as auto number must have value in sequence from 1 to as many records)
- 3.. SenderId
- 4.. SenderId
- 5.. 5
- 6.. one to one

**i) Table : Bank**

| Acc_no | Name        | Dt_opening | Dt_renew   |
|--------|-------------|------------|------------|
| SB1012 | Dr. Purohit | 03/12/2006 | 01/01/2014 |
| SB5053 | Major Karan | 07/05/1989 | 01/01/2014 |
| FD3210 | Er. Ashwin  | 02/02/2002 | 01/01/2014 |

**Table : Locker**

| Acc_no | Locker_no | Type   | Amount   | Operating date | Biometrics Data |
|--------|-----------|--------|----------|----------------|-----------------|
| SB1012 | 2222      | Single | 12450000 | 27/12/2013     | *****           |
| FD1056 | 5465      | joint  | 12324552 | 17/12/2013     | *****           |
| SB1012 | 707       | Single | 12450000 | 23/12/2013     | *****           |

- a. Suggest data types that should be used for each of the fields in the table Locker.
- b. Name the field which can be act as the foreign key for the table Locker.
- c. What type of relationship exist between the table bank and the table Locker.

**Answer i)..**

i)

| Field Name      | Data Type   |
|-----------------|-------------|
| Acc_no          | text        |
| Locker_no       | number      |
| Type            | text        |
| Amount          | Currency    |
| Operating date  | date        |
| Biometrics Data | OLE objects |

ii) Acc\_no

iii) one to many

- j) Kapil wants to add links to his favourite songs on his personal website. He wishes to listen to all songs before giving a link to them. Which of the following hardware is essentially required by him in his computer system?

- i. Graphics card
- ii. MIDI interface Card
- iii. Sound card
- iv. Network interface card

**Answer J)..** iii)Sound card

- k) Name any two popular sound formats that are most popularly used while designing web pages.

**Answer k)..**

1. mp3 , WAV , AIFF, MIDI , ASF

- l) Enumerate any two uses of Multimedia in education.

**Answer l)..** Multimedia in education

1. Interactive magazines
2. Educational Web pages

- m) Master Adarsh is planning to gift a digital album of ‘MODEL SAARC CONFERENCE 2012 ’ to his teacher on her farewell. All the images have

lots of colour shading and are all static images. Which of the following formats are best suited for this purpose:

1. GIF                      2. JPEG                      3. AVI

justify your choice

**Answer m)..**

2) JPEG : it can contain 24bits of colour depth (millions of color) and are 10 times more compressed than GIF files.

**n) What is the full form of GIF ?**

**Answer n)..** Graphics interchange format

**o) Differentiate between JPEG and MIDI file formats.**

**Answer o)..**

| JPEG   | MIDI                                 |
|--|--------------------------------------|
| High resolution can take 24 byte(bits) color combination means millions of color |                                      |
| Joint photographic engineering group   | Musical instrument digital interface |

**p) “Devesh Theatre Group” is developing an advertisement for one of its clients. The client has specified that the movie should be viewable on DVD players as well as on the internet. Also they want that the viewers should not have to download any special code to view the file. Keeping these requirements in mind, suggest the most suitable format from the following:**

1. AVI                      2.MPEG                      3.JPEG

Justify your choice.

**Answer p)..** MPEG: it provides a open , standard format for video data compression capable of producing high quality video at smaller file size.

**q) Differentiate between JPEG and GIF file formats.**

**Answer q)..**

| GIF image   | JPEG image  |
|---|---|
| 1. GIF stands for Graphic Interchange Format                        | 1. JPEG stands for Joint Photo graphic Experts Group  |
| 2. Allows animation   | 2. Does not allow animation   |
| 3. GIF files are less compressed and hence take more storage space. | 3. JPEG files are almost 10 times more compressed than GIF files; hence JEPG files are more compact than GIF files. |

**r) Name any two popular image formats that are most popularly used while designing web pages.**

**Answer r) ..** JPEG , JIF

**s) Differentiate between MPEG and AVI file formats.**

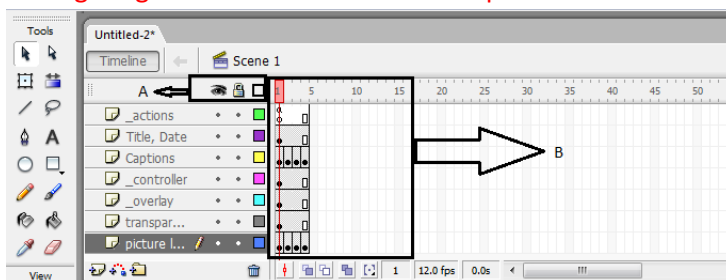
**Answer s) ..**

| AVI (audio video interleave)  | MPEG(moving pictures expert group)   |
|---|--|
| It is a coded file format which requires special software to play the files . | Most widely used media file format which easily plays on all platforms.        |
| AVI is relatively low quality with a limiting frame rate and mono sound.      | MPEG files offer extremely high compression rates with little loss of quality. |

## Topic : Flash(CBSE Question no. 2)

**2.**

**a. Study the figure given below and answer the question that follow:**



- Identify the areas labeled as A and B in the above figure.
- Explaining the term stacking order of layers and name the layer that will be shown on the top in the final movie.
- What will be the effect of increasing the frame rate of this movie from 12.0 fps to 15fps?

**Answer**

- A- Layer mode (visible , lock and outline)  
B- Timeline (components )
- it will increase the speed of movies when we increase the frame rate from 12.0 fps to 15 fps.

**b. What do you understand by timeline?**

**Answer**

Timeline: the timeline organizes and controls a movie's content over time in layers and frames.  
the major components of timeline are

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[www.niosguess.com](http://www.niosguess.com) | [www.iitguess.com](http://www.iitguess.com)

- a. layers
- b. frames
- c. playhead

c. What do you mean by publishing a flash movie ? Name different formats in which flash movie can be published .

**Answer**

Publishing means delivering a complete movie to the audience. Specially uploading on internet.

Formats

- i. html
- ii. exe
- iii. hax
- iv. mov

d. Define stroke. What is default stroke style?

**Answer**

stroke: stroke is an outline of an image. Each image can consist of a stroke and a fill. To create a shape stroke and fill are two primary elements.

Default stroke style: the default stroke style is solid.

e. What is the use of SWF files ?

**Answer**

SWF is a file extension for a Shockwave Flash file format . SWF stands for Small Web Format.

SWF files can contain video and vector based animations and sound and are designed for efficient delivery over the web. SWF files can be viewed in a web browser using the Flash plug in.

f) What do you understand by Panels ?

**Answer**

**PANELS:** panels are the small windows that let us to see and make change in the properties of objects and work with color, text, instances etc.

Example: info panel, effect panel ect.

g) Define the shape state and gap size. .

**Answer**

**SHAPE STATE:** “ the lowest state of a shape created in flash is the shape state”

In flash, images are referred to as shapes. Shapes you create or import can exist in various states.

**GAP SIZE:** it is tool of paint bucket tool, when a shape without a fill has as outline that is not closed (such as a circular line with ends that do not meet); then the paint bucket uses Gap size modifier to fill the color.



h) What do you understand by alpha value ?

**Answer**

**ALPHA VALUE:** using alpha value we can add transparency effect to a color. At 100% alpha the color is opaque. At 0% the color is entirely transparent.

The range in between affects the level of translucency the color has applied.

i) Name four instances property ?

**Answer**

**INSTANCES PROPERTY:** instance is a copy of a symbol which is either located on the stage or inside other symbol. One can apply a number of instance properties, such as Brightness, Tint, Alpha, Advance (manipulation of color and transparency ) to the instance.

j) What do you understand by tweening? Name two types of tweening.

**Answer** **TWEENING:** in tweening we select the starting and finishing points for an object and flash animates it by filling in between , tweened animation is called tweening.

Two types of tweening:

There are two types of animation that can be performed in flash

- i) Frame By Frame Animation
- ii) Tweening Animation
  - a) Shape Tweening
  - b) Motion Tweening

k) Define the term Symbol.

**Answer**

Symbols are reusable media elements such as graphics, buttons, movie clips etc. that can be used in a movie.

When the user creates a symbol, the symbol is stored in the file's library and when a symbol is placed on the Stage, an instance of that symbol is created

l) What is the difference between hiding and locking a layer ?

**Answer**

When a layer is hidden it means that the contents of that layer are not visible and when a layer is locked then the contents of that layer cannot be edited.

m) Differentiate between

- i) stage object and overlay object
- ii) event sound and stream sound

### Answer

| Stage Object  | Overlay Object                                   |
|---|--|
| Objects are the simplest and comprise of anything drawn with the drawing tools. | Objects group together to act as a single unit . |

| Event Sound  | Stream Sound   |
|--|--|
| Must download completely before it begins playing. | It begin playing as soon as enough data for the first few frames has been downloaded . |

n) Write steps to include flash file into a HTML file?

### Answer

to include flash file into a HTML file use following command

<EMBED SRC = "Filename.swf">

o) Define the term layer. What are the different properties of layer that can be set using layer property dialog box?

### Answer

layer: it is a transparent sheet of plain glass placed on the top of others.

\* properties of layer:

- i. layer name
- ii. show and lock
- iii. type
- iv. outline color
  - v. layer height
  - vi. layer as outline (check view) etc.

p) Explain the concepts of Frame, Frame Buffer and Frame Rate.

### Answer

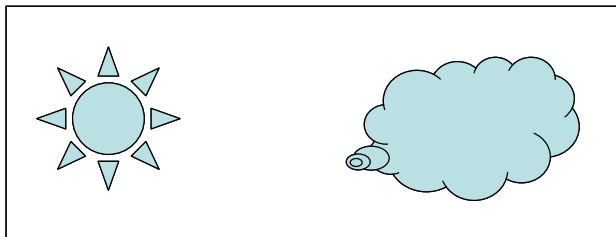
- frame: it is a segment of movie mainly used for creating and storing object.
- frame buffer: before displaying where movie stored called frame buffer.
- Frame rate: number of frame per second. It actually used to control the speed of movie.

q) How character kerning is different from character tracking?

### Answer

| Character kerning   | Character tracking   |
|---|--|
| When there are unequal space between the character it is called kerning. It controls the spacing between pairs of characters. | When there are equal uniform space between characters it is called tracking. |

r) Observe the figure given bellow and do as directed :



- The image on the left hand side shows the position and size of the image for frame1.
  - The image on the right hand side shows the position and size of the image for frame 40.
- Write the procedure and property settings for animating the above scenario.

### Answer

following are the steps to shape tweening:-

- draw a sun shape on the first frame.
- place the playhead at the 40<sup>th</sup> frame and insert a keyframe  
(insert – timeline – keyframe)
- drag the object by selecting the selection tool, select both stroke and the fill. Place it on the right hand side of the stage as shown in the figure.
- at the 40<sup>th</sup> frame, delete the sun shape and draw a different shape lets say cloud with a different fill colour.
- place the playhead at the first frame and right click over it. Chose panels > frame.  
Frame dialog will appear. In tween option select “shape” and in the blend option select “Distributive”.

t) How is a Flash Scene different from a Flash Movie ?

### Answer

All Flash files that one makes are called movies. A flash movie is like a complete book and a flash scene can be considered as a chapter in a book. A scene is like a clip of a movie, which can be treated as an entire single unit all on its own and arranged around other clips. If you have multiple scenes in a Flash movie without any stops at the end of them, then all of your scenes will play consecutively in the order they were created.

The advantage of breaking a movie into scenes is that every scene can be accessed individually and thus the sequences or order of the scenes can be changed.

u) Differentiate between Pen Tool and Pencil Tool.

### Answer

| Pen tool   | Pencil tool                           |
|--|---------------------------------------|
| 1. It is used to draw precise curves and also straight lines.        | 1. It is used to draw freeform lines. |
| 2. It lets you place anchor points and adjust the curve of the lines | 2. It is drawn in one go.             |

|   |  |
|---|--|
| connecting them.<br>3. The pen tool will always result in Straightened lines. | 3. The pencil tool has three states: Straighten, Smooth, or Ink. |
|---|--|

v) Explain the usage of various selection tools available in Flash 5.

### Answer

The various selection tools available are:

- Arrow tool : Used to grab, select and move items on the Stage.
- Subselect tool : Displays edit points that can be adjusted to change the shape of a line.
- Lasso tool: Used to select irregularly shaped object on the Stage.

w) What is the difference between Exporting and publishing?

### Answer

| Publishing   | Exporting  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Publishing is preparing movie files and accompanying HTML codes for uploading movies on the Internet.</li> <li>2. Settings can be saved for reuse.</li> <li>3. A movie is published only if the recipients are expected to play it on the internet using Flash player .</li> </ol> | <ol style="list-style-type: none"> <li>1. Exporting is saving a movie file in different formats to be played using a particular player.</li> <li>2. Settings cannot be saved.</li> <li>3. A movie is exported from Flash only if the recipients are expected to play it using software other than Flash .</li> </ol> |

x) Consider the figure given below and do as directed:



- The circle on the left hand side shows the position and size of the image for frame 1. The colour of the image is red.
- The circle on the right hand side shows the position and size of the image for frame 20. The colour of the image is yellow.

- The circle on frame 1 moves and transforms into a semicircle on frame 20.  
Write the procedure and property settings for animating the above scenario.

## Answer

The following steps have to be followed to animate the given scenario:

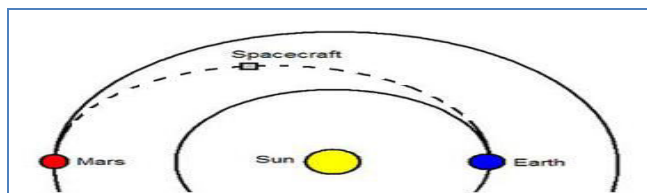
- Select frame 1 from the timeline and select Insert New Symbol Graphic
- Create the red coloured figure given on the left hand side.
- Insert an instance of this symbol in frame 1 by dragging it from the library window.
- Select frame 20 from the timeline and Select Insert Keyframe
- Change the size and shape of the image using scaling button
- Change the colour of the object by selecting Tint option from the Effect palette and selecting the new colour.
- Select any frame between 1 and 20
- Select Create shape tween.

y.. Observe the figure given bellow and do as directed :

The image except spacecraft and its path on the stage shows the position of the image form frame 1 to frame 50 of layer 1.

- The image(spacecraft) on the right side shows the position of the image for frame 1 of layer 2.
- The image (spacecraft) on the left side shows the position of the image for frame 50 of layer 2.
- The dotted line shows the path of motion of spacecraft.

Write procedure and property setting for animating the above scenario.



## Answer STEPS TO CREATE GUIDE LAYER:

- i) draw an object, say a solar system with the help of tool on layer1 at frame 1<sup>st</sup> and press ctrl+G till 50<sup>th</sup> frame of layer 1. Or
- ii) click on frame 50. right click and choose insert key frame.
- iii) insert layer 2
- iv) draw spacecraft on frame 1 of layer 2 at right position near Earth
- v) click on frame 50. right click and choose insert key frame.

- vi) drag the image from frame 1<sup>st</sup> to frame 50<sup>th</sup> near Mars to the left side of Earth.
- iv) right click anywhere in between and choose create motion tween.
- v) Select insert – motion guide
- vi) Flash creates a new layer above the selected layer2; named as guide layer.
- vii) On the guide layer, place the playhead at the 1<sup>st</sup> frame
- viii) Then using pencil tool, draw the motion path as shown with dotted line in the question.
- ix) Select control – play

x..Observe the figure given bellow and do as directed :



- The text “learn flash 5.0 in three days “ shows the position and size in frame 1.
- The solid circle image shows the position and size of the image for mask layer.

Write the procedure and property settings for animating the above scenario.

## Answer

### mask layer:

- i. draw an object , say a text “ learn flash 5.0 in 3 days” with the help of tools on layer 1 at frame 1<sup>st</sup> and press ctrl+g.
- ii. press F6 and increase it to the frame 50.
- iii. click on insert and select “ mask layer”, a layer will be created above the layer 1. select the frame 1 of mask layer...
- iv. draw a solid circle on the layer 1 and press F6 till 50<sup>th</sup> frame, move the circle on the text to the new position.
- v. right click in mask layer and select create motion tween .
- vi. look the layer and click on contr test movie.
- vii. play the movie.

## Topic : HTML(CBSE Question no. 3)

3 . Question given below are based on HTML:

a) What is the use of TEXTAREA ? write all the attribute of textarea.

- a. **Answer:** text Area: this tag is used to accept multiple lines of text from a user. For example feedback , report etc.

attributes of text Area: following are the attribute of text Area.

- i. name = " variable\_name"
- ii. rows = "number"
- iii. cols= "number"

b) What is the purpose of select tag .

**Answer**

**PURPOSE OF SELECT KEY:** select tag is used to create a combo box or list box.

For example

```
<select name = "s1">
```

```
<option> xyz
```

```
<option> ABC
```

```
</select>
```

c) What is URL ? Explain different Types of URL.

**Answer**

URL (universal resource locator)

WWW uses an addressing scheme known as URL to indicate the location of such items.

In the WWW a unique location of a web site is required to view that web page / site in the browser. This unique address of the web element is referred to as a URL.

Types of URL

- i. absolute URL: it uses a complete internet address to give the location of a resource. For example <http://www.yahoo.com/index>
- ii. relative URL: it only designates the file name.
- iii. fragment URL: using the name attribute of an <A> element creates an anchor, the fragment URL is created.

d) How can you include background sound in HTML page ?

**Answer**

To include background sound in html page use following coding

```
<bgsound src="music.wav" loop=3>
```

here

loop = -1 is infinite

e) Explain the importance of font tag ? How font is different from base font tag?

**Answer**

### FONT TAG

font is a container tag and always written inside body tag. With the help of font tag we can change size (1 to 7) color (in ---- code, or simple text like "red") and face (arial etc)

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Font tag                          | Basefont tag                      |
| Container tag                     | Empty tag                         |
| Can used many times in a document | Only one time used                |
| Attributes are face, size,color   | Attributes are face, size , color |

f) Define <DL> tag .

**Answer**

<dl> tag (definition list)

there are two type of list order and unordered list. <dl> tag is used to define the heading of a topic and the description.

Other sub tag of <dl> are

- i). <DD> (definition description)
- ii) <DT> ( definition term)

g) Explain the importance of NOFRAME tag .

**Answer**

. Importance of NOFRAME tag.

<NOFRAME>

all browser do not support frame, due to this if <NOFRAME> tag is not used browser shows errors on display.

So <NOFRAME> is used to ignore the error and if browser do not support the frame it will not display errors.

Example:

```
<html>
<head> <title> nonframe</title>
</head>
<NoFrame>
<Frame set .....
.....
</Frame set>
</NoFrame>
</html>
```

h) Differentiate between HIDDEN and PASSWORD interface elements of a form.

**Answer**

HIDDEN creates an invisible text control that allows the user to store values within a Web page without being seen by the user, while PASSWORD creates a visible text control that displays the characters typed into the input area as asterisks.

i) Explain with the help of an example how ‘intrafile’ linking is done.

**Answer**

Intrafile linking is a two step process:

1. The First step involves creating a named anchor:

For example:

```
<a name="TOP"> Heading</a>
```

This creates a marker for the link to jump to on a web page

2. The second step involves using this named anchor to create a link:

For example:

[www.cbseguess.com](http://www.cbseguess.com)

Other Educational Portals

[www.icseguess.com](http://www.icseguess.com) | [www.ignouguess.com](http://www.ignouguess.com) | [www.aipmtguess.com](http://www.aipmtguess.com) | [www.aieeeguess.com](http://www.aieeeguess.com) |  
[www.niosguess.com](http://www.niosguess.com) | [www.iitguess.com](http://www.iitguess.com)

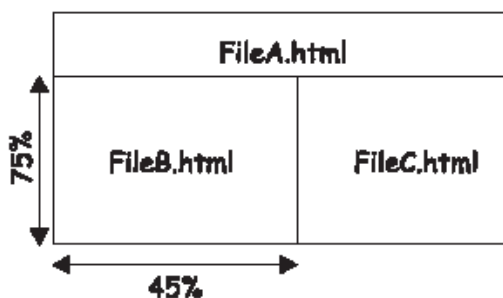


`<a href="#TOP"> Back to Top</a>`

j)

Write the HTML code to create a framed web page in the following format:

2



### Answer

The required coding is :

```
<HTML>
<FRAMESET ROWS = "25%,*">
<FRAME SRC = "FileA.HTML">
<FRAMESET COLS = "45%,*">
<FRAME SRC = "FileB.html">
<FRAME SRC = "FileC.HTML">
</FRAMESET>
</HTML>
```

k) Write the HTML command to create a textbox which can accept maximum of 20 characters with a default value "Enter Name".

### Answer

```
<INPUT TYPE=TEXT MAXLENGTH=20 VALUE="Enter Name">
```

l) Name any two structural tags of HTML.

### Answer

<HTML>, <BODY>, <HEAD>, <TITLE>

m) Differentiate between `<INPUT TYPE='image'>` and `<IMG>` tag.

### Answer

| <code>&lt;INPUT TYPE = "IMAGE"&gt;</code>   | <code>&lt;IMG&gt;</code>  |
|---|---|
| <ol style="list-style-type: none"> <li>1. It is used to insert an image button which acts like a submit button.</li> <li>2. It is a part of the HTML Form.</li> <li>3. The image acts like a hyperlink. When a visitor click an image button the form is sent to the address specified in the action</li> </ol> | <ol style="list-style-type: none"> <li>1. It is used to insert an image on the Web page.</li> <li>2. It is an individual HTML element.</li> <li>3. It displays a simple image which may or may not be hyperlinked to another page. The image may be hyperlinked by using <code>&lt;A&gt;</code> tag around</li> </ol> |

|   |   |
|---|---|
| <p>attribute of the &lt;form&gt; tag.</p> <p>4. For example<br/>&lt;INPUT TYPE = "IMAGE"<br/>SRC="cloud .jpg"&gt;</p> | <p>it.</p> <p>4. For example<br/>&lt;IMG SRC="cloud .jpg"&gt;</p> |
|---|---|

n) Divide the page horizontally into three sections of measurement 20,60,20 respectively and then further divide the last row vertically into two columns each of equal proportion (50%,50%).

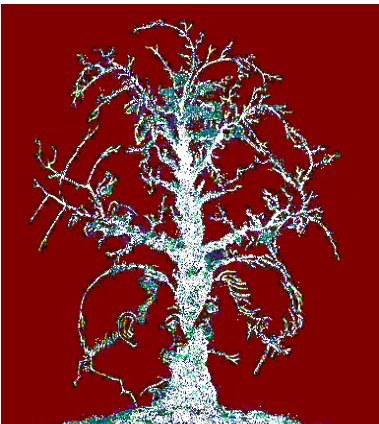
### Answer

```
<HTML>
<FRAMESET ROWS="20%,60%,20%">
  <FRAME SRC="frame_a.html">
  <FRAME SRC="frame_b.html">
<FRAMESET COLS="50%,50%">
  <FRAME SRC="frame_c.html">
  <FRAME SRC="frame_d.html">
</FRAMESET>
</FRAMESET>
</HTML>
```

o) Write the HTML code to generate a Web Page in the format given below :

Consider the following while writing the HTML code :

- Background of page pink , link colour is green , active link color is blue and visited link colour is red .
- Title of the page is "Republic Day".
- Heading of the page is red.
- image used is "inc1987.jpg"
- caption of table is blue.
- table border is blue and of size 3.
- First row of table has background color "cyan"
- Pages linked to :  
New Delhi as "nd.html"  
Faridabad as "fbd.html"  
Dehradun as "ddn.html"
- Image used at the bottom is try1.gif and it acts as a link to Ryanfaridabad.html .the link for " table of contents " is also same .



### Republic Day

is India's important national event celebrated on January 26th every year. January 26 was not some random date picked out of the calendar. It was on this date in 1927, that the Indian National Congress, then fighting its non-violent war for freedom, voted for complete independence as against 'dominion status'. It was the date when members of the INC took the pledge to work towards a 'sovereign democratic republic' of India.

|           | The President       |      |        |     |
|-----------|---------------------|------|--------|-----|
|           | Paramilitary forces |      | Police |     |
| The Army  | 25L                 | 125L | 75L    | 15L |
| The Navy  | 250L                | 65L  | 5L     | 85L |
| Air Force |                     |      |        |     |

Security

## Answer

### HTML CODE TO GENERATE THE GIVEN WEB PAGE

```
<html>
<head><title> republic day </title> </head>
<body bgcolor = "pink" link = "green" Alink = "blue" value = "red">
<h1><font color = "red"> <u> republic day </u> </font> </h1>
<br>
<img src = "inc1987.jpg" align = left height = 300 width = 150>
<p> is india's important national event celebrated <br>
on January 26th every year. January 26 was </br>
not some random date picked out of the <br> calendar. It was on this date in 1927,
that the <br> Indian national congress , then fighting its non <br> violent war for
freedom. Voted for complete <br> independence as against dominion status" , it <br>
was the date when members of the INC took <br> democratic republic' of India. <br>
<table border = 3 bordercolor = blue>
<caption color = blue align = bottom> <b> security </b> </caption>
<tr bgcolor = "cyan <th rowspan = 2> the army
<th colspan = 4> the president </tr>
<tr> <th colspan=2> paramilitary force <th colspan=2> police
<tr><th>the navey <td>25sL<td>125L<td>75L<td>15L
<tr><th>Air force <td>250sL<td>65L<td>65L<td>85L
</table> <br>
<ol type=1 start = 1>
<li><a href=nd.html"> new delhi </a>
<ol type = 'disc'>
<li>republic day parade
<li> delhi marching on the rajpath
```

```
</ul>
<li><a fbd.html"> faridabad </a>
<li><a ddn.html"> dehradun </a> <br>
<a href = rhyanfaridabad.html> <img src ="try1.gif" align=color> <br>
table of content
</a>
</body>
</html>
```

## Topic : ASP(CBSE Question no. 4)

4. Question given below are based on ASP :

a)How the application\_Onstart is different from session\_Onstart event ?

### Answer

|   |  |
|---|--|
| application onstart   | session onstart  |
| i. this event handler is run once when the application starts | the event is called every time a new user begins a session with the website. |

|                                     |                       |
|-------------------------------------|-----------------------|
| Example: <% sub application_onstart | <%sub session_onstart |
| .....                               | .....                 |
| End sub %>                          | end sub %>            |

b)Explain Atendoffline property of textstream object with an example .

### Answer

atendoffline property of textstream object  
it indicates whether the end of a particular line in a text file has been reached. It returns true when the newline character is detected and false otherwise.  
Example: while not myfile. Atendoffline  
Response.write (myfile.readline(1))  
Wend

c)Differentiate between choosecontent and getallcontent of content rotator component.

### Answer

|  |   |
|--|---|
| choose content   | getallcontent   |
| i. retrieves an html content string from the content schedule file randomly and displays it on the current page <hr> tag after each entry. | retireves all of the html content strings the content schedule file and writes them directly the web page as a list with an |

d)Find output

```
Response.write(strreverse (left(mid("Must write supporting answer",6,6),4)))
Response.write(monthname(month("16-01-2009"))))
Response.write( (8*2-5+18<34) XOR (9>5) )
```

**Answer**

- i) tirw
- ii) january
- iii) False

e)What are the purpose of using the global.asa file ?

**Answer**

**PURPOSE OF USING THE GLOBAL.ASA**

It is an optional file used to initialise variables in the application object.  
It contains information that is global to the application each application can have only one global.asa file that is located in the application's root directory.

f)How the application\_Onend is different from session\_Onend event ?

**Answer**

| APPLICATION_ONEND  | SESSION_ONEND                                      |
|--|--|
| 1. an application ends immediatly after the last active session within that application ends | This event is called whenever a session terminates |

g)Differentiate between read and readall method of textstream object.

**Answer**

| READ   | READALL   |
|--|---|
| It read the specified number of characters from the text file<br>Example: textstreamobj.read(n)<br>Where n = number of character | It read the entire content of the text file<br><br>Example: textstreamobj.readall |

h)What is the importance of GetAdvertisement method of AdRotator component ?

**Answer**

**IMPORTANCE OF GETADVERTISEMENT METHOS OF ADROTATOR COMPONENT**

the adrotator component has a single method Getadvertisement() which takes a single parameter. This parameter specifies the name of rotator schedule file that corotains the information about the advertisement to be displayed.

**EXAMPLE:** AdRotator.GetAdvertisement(rotationschedulepatch)

i)Find output

a)Response.write(strreverse (mid("Must write supporting answer",11,6)))

- b) Response.write(instr("this is exam", "his"))  
 c) Response.write( (8\*2-5+18<34) IMP (9>5) )

**Answer**

- a) oppus# (# means space)  
 b) 2  
 c) T

j) What do you understand by the cursor type of a recordset? What are the different values that a user can specify for the cursor type?

**Answer**

Cursor type of a record set.

It is an optional parameter and specifies what sort of cursor the recordset will have on opening.

Different values that a user can specify for the cursor type.

- |                       |  |
|-----------------------|--|
| i) adopenforwardonly: | i) default<br>ii) user can only scroll forward   |
| ii) adopenkeyset;     | i) data changed by other user are visible<br>ii) data added by other username not visible etc. |
| iii) adopen dynamic:  | i) all type of movement allowed<br>ii) add, change, delete are visible                         |
| iv) adopensetatic:    | i) addition, change, deletion are not visible.   |

k) What do you mean by trimming? How can you implement the trimming concept in ASP program?

**Answer**

trimming: if remove space from left, right, both side

to implement the trimming we use three reserved function:

LTRIM(): to remove the blank space from the left side of a string.

RTRIM(): to remove the blank space from the right side of a string.

TRIM(): to remove the blank space from both side of the string.

l) Differentiate between Response Object and Request Object with the help of an example?

**Answer**

| Request object   | Response object   |
|--|---|
| Used to send data from the browser<br>Example. i) query string<br>ii) form<br>iii) cookies | Used to send information from the server to the browser<br>Example i) write method<br>ii) flush method<br>iii) end method |

m) Differentiate between flush method and end method of response object .

**Answer**

| Flush method  | End method   |
|---|--|
| sends any previously buffered output to the client.<br>Continue processing the script.<br><% response. Flush %> | send the buffered output.<br>Causes the server to stop processing the script<br>iii. <% response.end%> |

n) Find output

a) Response.write(ucase(mid(" congratulations!", 2, abs(13 mod 5)))

b) Response.write(instr("mistrust or DISTRUST", "ST")

c) Response.write( Right (" CLASS XII", hour(#4:30:10 AM#)

**Answer**

a) ONG

b) 15

c) #XII

# ; indicates space

o) What is the basic difference between a HTML file and an ASP file?

**Answer**

An Active Server Page can contain server-side scripts, built-in objects and additional Active-X components whereas a normal HTML page cannot have any scripts or additional components.

p) Identify the following:

(i) The collection used to retrieve the values of form elements sent using the POST method.

Answer: FORM collection 2

(ii) The alternate command for <% ="HELLO" %>

Answer :

The alternate command is :

Response.Write("HELLO")

q) What is a sub-routine? What are arguments? Explain with an example.

**Answer**

A subroutine is a named block of code that can be called from anywhere in a program to accomplish a specific task. Subroutines are procedures that do not return a value to the caller.

Data that is required for the execution of the subroutine may be passed through variables called arguments.

Example:

[www.cbseguess.com](http://www.cbseguess.com)

Other Educational Portals

[www.icseguess.com](http://www.icseguess.com) | [www.ignouguess.com](http://www.ignouguess.com) | [www.aipmtguess.com](http://www.aipmtguess.com) | [www.aieeeguess.com](http://www.aieeeguess.com) |

[www.niosguess.com](http://www.niosguess.com) | [www.iitguess.com](http://www.iitguess.com)

```
Sub DisplaySum(a,b)
Dim c
c=a+b
Response.Write("Sum =" & c)
End Sub
```

r) Use the following script to answer the questions that follow:

<!-- Start the script -->

<%

DIM A

StartSub

Sub StartSub

Work

B = 20

Work

END SUB

SUB Work

A=A+5

END SUB

%>

**What is the scope of variable A and B in the above script?**

**Answer;** (i) Variable A has global scope while variable B has local scope.

**How many times will the subroutine *Work* be executed in the above script?**

**Answer:**

The subroutine *Work* will be executed two times

**s) Give output of the following statements:**

Response.Write(INSTR(LTRIM(" WebTech"), "Tech"))

ii) Response.Write(UCASE(RIGHT("Multimedia",5)))

iii) Response.Write(ABS(4 – 10 \* 3))

**Answer**

i) 2

ii) 4

iii) 26

**t) Name any two technologies which are equivalent to ASP.**

**Answer**

Two technologies which are equivalent to ASP are JSP and PHP.

**u) Explain with examples the difference between implicit and explicit declaration of variables.**

**Answer**

One method of using variables in VB Script is to just start using it wherever needed in the script and VBScript automatically creates the variable. This is called the *implicit method*. Whereas, in the *explicit method*, the variables need to be explicitly declared before using



them. Variables are declared by using the dimension statement. This directs the browser to reserve memory for storing data in the variables.

For example:

```
<Script Language="VBScript">
Dim Name 'explicit declaration
Name="Gopal"
Age=20 'implicit declaration
....
</Script>
```

v) Explain with an example the difference between the string operators + and &.

### Answer

The string concatenation operator(&) is used to merge two strings together to form a new string.

The + operator can also be used for string concatenation. It can handle strings, but when strings are mixed with numbers, it may give ambiguous results.

Example:

A="12"

B=8

N="Hello"

C=A&B ' C will contain 128

D=A+B ' D will contain 20

E=N&B ' E will contain Hello8

F=N+B ' this will give type mismatch error

w) Give output of the following statements:

Response.Write(UCASE(MID("Hello There"),7,3)))

ii) Response.Write(MONTHNAME(MONTH("15-2-2003")))

iii) Response.Write((4+5)MOD(3^2))

### Answer

i) THE

ii) February

iii) 0

x) Name the web server required to execute ASP on Windows Operating system.

### Answer

PWS or IIS

y) Observe the following script:

```
<SCRIPT LANGUAGE = "VBSCRIPT" RUNAT="SERVER">
OPTION EXPLICIT
DIM A, B
A=0
```

```
B=1
FOR I=1 TO 5 STEP 1
C= A*B
RESPONSE.WRITE C
A=B
B=C
NEXT
</SCRIPT>
```

Everytime this script is executed, the programmer receives an error as soon as the FOR loop is reached. Identify the error and write the corrected code.

### Answer

The error is that the variables I and C have not been declared. All variables need to be declared explicitly because of the OPTION EXPLICIT command at the top.

Corrected Code:

```
<SCRIPT LANGUAGE = "VBSCRIPT" RUNAT="SERVER">
OPTION EXPLICIT
DIM A, B, C, I
A=0
FOR I=1 TO 5 STEP 1
C= A*B
RESPONSE.WRITE C
A=B
B=C
NEXT
</SCRIPT>
```

z)Mention any two features of ASP.

### Answer

ASP contains server-side scripts, objects and components.  
ASP is capable of adding dynamic content to a web page

aa)Define variant datatype. Name any two sub-types of the variant datatype.

### Answer

A Variant is a special kind of data type that can contain different kinds of information, depending on how it's used.

Sub-types of the variant data type are: Empty, Null, Boolean, Byte, Integer, Long, Currency, Single, Double, Date, String, Object. **(Write any two)**

ab)Give the output for the following :

Response.Write(LTRIM(LEFT("#####Congratulations", 7))

(where # denotes a blank space)

(ii) Response.Write((3 \*5 > 4 + 5) AND (2 ^ 3 + 9 \ 2))

(iii) Response.Write(ABS(3 – 11 \* 4))

### Answer

- i) Con
- ii) 12
- iii) 4

ac) Write the difference between lock and unlock method of Application object .

**Answer**

| <b>Application.Lock()</b>  | <b>Application.Unlock()</b>  |
|--|--|
| <p>The Lock method prevents other users from modifying the variables in the Application object when one user is modifying it.</p> <p>Used to ensure that the only one client at a time can modify the Application variables.</p> <p>Needs to be explicitly called.</p> | <p>The Unlock method enables other users to modify the variables stored in the Application object .</p> <p>Used to ensure that all users have access to the variable. It used after Application variable has been locked using the Lock method.</p> <p>It is not called explicitly, the web server unlocks the Application object when the asp file ends or times out.</p> |

ad) Expand the term DSN.

**Answer**

DSN stands for **Data Source Name**.

ae) Name any two collections of the Request Object.

**Answer**

The collections of the Request object are:

- Form collection
- QueryString collection
- ServerVariables collection
- Cookies collection
- ClientCertificate collection

af) Give output of the following statements:

- i) Response.Write(INSTR(LTRIM(" ActiveX Data object"), "obj"))
- ii) Response.Write(strreverse (MID("Hello There" ,7,3)))
- iii) Response.Write(isnumeric(MONTHNAME(MONTH("12-12-2009"))))

**Answer**

- i) 14
- ii) ehT
- iii) False

## Topic : ASP(CBSE Question no. 5)

(a) Differentiate between optimistic and pessimistic locking of a record set.

### Answer

|    |   |   |
|----|---|---|
| a. | optimistic locking  | pessimistic locking   |
|    | locking record by record . the provider lock records only when calling update Method. | locking record by record the provider lock records immediately after editing. |

(b) Describe any two methods of response object .

### Answer

b. methods of response object:

- response.clear: it erases any buffered html output.
- Response.flush: send buffered output immediately to the client.

(c). Find the errors in the following ASP code

```
<mtnl>
<body>
<%
s=" Dynamic Array"
do while (i<7)
if mod(len(s),2)
response.write (n)
next %>
</body>
</html>
```

### Answer

corrected code

```
<html>
<body>
<%
s="dynamic array"
do while (l < 7)
if len(s)mod 2=0 then
response.write(s)
end if
loop %>
</body>
</html>
```

(d) Find the output of the following ASP coding

```
<% arr=array(25,12,36,65,69,62,21,14,15,36)
max=ubound(arr)
for l = max to 1 step -2
```

```
arr(i)=abs(50-arr(i))
next
for l = 1 to max
    response.write(arr(i) & "<br>")
next %>
```

### Answer

output  
38  
36  
15  
69  
12  
21  
36  
15  
14

(e) Write a program in ASP to count of the word "is" as an independent word in a text file endavour.txt.

for example

This is his book . is this book good ?

Then the output of the program should be 2.

### Answer

```
ASP Coding
<% dim ch, count
set fileobj = server.createobject ( "scripting.filesystemobject")
set myfile=fileobj.opentextfile("endavour.txt")
while Not myfile.atendofstream
ch=myfile.read(4)
if ch="is" or ch = "-is" then
count = count +1
end if
wend
response.write("the number of is = " & count)
myfile.close
myfile.nothing %>
```

f). What is ADO ? What is the significance of OLEDB with reference to ADO in ASP?

### Answer

**ADO:** "active data object"

An ADO can be used within ASP to access a database and make the web browser to act as an interface between data and the end user

### SIGNIFICANCE OF OLEDB WITH REFERENCE TO ADO

ADO , however does not communicate directly with the data source. It communicate through an intermediate interface called . OLE DB. It provide a system level interface to a data source.

g) Describe any two server variable of request object .

**Answer**

**SERVER VARIABLE OF REQUEST OBJECT:**

- i) **HTTP\_USER\_AGENT**: it returns a string describing the browser that sent the request.
- ii) **REMOTE\_ADDR**: the IP ADDRESS of the remote host making request i.e the IP Address of client

h) Find the errors in the following ASP code

```
<html>
<body>
<%
s=" Dynamic Array"
  for l = 1 upto 7 skip 2
    n=mid(s,l,2)
    response.write (n)
    document .write("<br>")
  loop %>
</body>
</html>
```

**Answer**

**WRONG CODE**

```
<html>
<body>
<%
s="Dynamic Array"
for l = 1 upto 7 skip 2
n=mid (S, l,2)
response.write(n)
document.write (< "br>")
loop
%>
</body>
</html>
```

**CORRECTED CODE**

```
<html>
<body>
<%
s="Dynamic Array"
for l = 1 to 7 skip 2
n=mid (S, l, 2)
response.write(n)
response.write (< "br>")
Next
%>
</body>
</html>
```

i). Find the output of the following ASP coding

```
<%
arr=array(35,24,30,55,15,5,90,51)
max=ubound(arr)
for l = max to 1 step -2
  arr(i)=100-arr(i)
  response.write(arr(i) & "<br>")
next %>
```

**Answer**

49  
95  
45  
76

j) Write an ASP program to read a text file named **"mytext.txt"** and display the contents of the file on the screen after converting all alphabets to upper case letters.

**Answer**

```
<%dim ch
set fileobj = server.createobject("scripting.filesystemobject")
set myfile= fileobj.opentextfile("mytext.txt")
while not myfile. AtENDOfStream
ch = ucase(Myfile.Read(1))
response.write(ch)
wend
myfile.close
myfile.nothing
%>
```

j) Convert the following coding in to **for .....next** loop  
a=1,b=20,c=3,d=4,e=5  
do while b>=10  
sum=a+b+c+d+e  
a=a+3  
b=b-7  
c=c+3+d+e/2  
loop %>

**Answer**

```
<% a = 1, c=3, d=4, e=5
```

```
for b = 20 to 10 step -7
sum = a+b+c+d+e
a=a+3
c=c+3+d+e/2
Next %>
```

k) Find the errors in the following ASP code

```
<mtnl>
<body>
<%
s=" Dynamic Array"
do while (i<7)
```

```

if mod(len(s),2)
    document.write (n)
next %>
</body>
</html>

```

### Answer

```

<mtnl>                i) <html>
<body>
<% s="dynamic array"
do while (i<7>
if mod(len(s), 2) then
document.write (n)      iii)response.write(n)
.....                iv)end if
.....                v)loop %>
next %>
<body>
</html>

```

M) Find the output of the following ASP coding

```

<%
    i=4
    atx=array(10,20,30,40,50,60)
    min=1
    do while(i>=min)
        atx(i)= atx(i)\3
        i=i-1
        response.write(atx(i))
    loop %>
</body>
</html>

```

### Answer

1613106

n) write a program in ASP to count the number of space in a paragraph stored in "d:/wwwroot/localhost/astronaut.txt"

### Answer

```

<% dim myfile, fileobj, k
set fileobj = Server.createobject("sending.filesystemobject")
set myfile = fileobj. Opentextfile ("d:/wwwroot/localhost/astronaut.txt")
while not myfile.atendofstream
k= myfile.read(1)
if k = " " then
count = count + 1

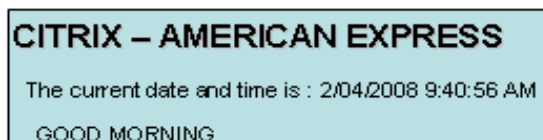
```



```
end if
wend
response.write("total number of space=" , count)
myfile.close
myfile.nothing %>
```

o) A software company CITRIX wishes to design an ASP coded web page with the following specifications:

- the company wish to display current time and the name of the company on the opening page as displayed.
- To display a greeting message " GOOD MORNING " if the user accesses the website between 5 and 12 A.M and "GOOD EVENING " otherwise.



### Answer

```
<html>
<body>
<h1><center>CITRIX – AMERICAN EXPRESS </center></h1>
The current date and time is: <%response.write(now())%>.
<br>
<%If hour(time())>5 hour(time())<12 Then
response.write("GOOD MORNING")
Else
Response.write("GOOD EVENING")
End If %>
</body>
```

**p) Explain briefly the usage of the Application object.**

### Answer

A group of related ASP pages is called an application. An application object has all the methods and collections related to applications. For example, an application variable contains data that can be used on all the pages and by all the users of an application.

**q) Underline the errors in the following code and write the corrected script.**

```
<HTML>
<BODY>
<% for a = 1 To 4 %>
<FONT SIZE= <% a %>>
Hello World !<BR>
< Next>
</BODY>
</HTML>
```

### Answer

Corrected script with errors underlined:

```
<HTML>
<BODY>
<% for a = 1 To 4 %>
```

```
<FONT SIZE= <% =a %>>
Hello World!<BR>
<% Next %>
</BODY>
</HTML>
```

**r) Give the output for the following code segment:**

```
<%
Arr=Array(25,14,20,45)
max=UBOUND(Arr)
FOR i=max TO 1 STEP -1
Arr(i)= 100-Arr(i)
NEXT
FOR i=0 TO max
RESPONSE.WRITE (Arr(i) & "<BR>")
NEXT
%>
```

**Answer**

Output:

```
25
86
80
55
```

**s) Observe the program segment given below carefully and fill the blanks marked as Line 1 and Line 2 using methods of the RecordSet object for performing the required task. 2**

```
<%
DIM objConn, strConn, objRS
SET objConn = Server.CreateObject("ADODB.Connection")
strConn = "DSN=exam"
objConn.Open strConn
SET objRS = Server.CreateObject("ADODB.RecordSet")
objRS.Open "Student", objConn, 2, 2
objRS.MoveLast 'Move the cursor to the end of file
_____ 'Line 1 to Add a new blank record
objRS("AdmNo") = Request.Form("AdmNo")
objRS("Name") = Request.Form("Name")
_____ 'Line 2 to save the record in the database
objRS.Close
objConn.Close
SET objRS = Nothing
SET objConn = Nothing
%>
```

**Answer**

Line 1:

```
objRS.AddNew
```

Line 2:

```
objRS.Update
```

t) Online Bazaar uses its website to make money through banner advertisements. Create an ASP file “online.asp” that uses the AdRotator component to display the advertisements stored in the file “ads.txt”



### Answer

```
<HTML>
<BODY>
<HR>
<%
Set myad=Server.CreateObject("MSWC.AdRotator")
%>
<CENTER><%= myad.GetAdvertisement("ads.txt") %></CENTER>
</BODY>
</HTML>
```

U) What is the purpose of using the Global.asa file?

### Answer

The purpose of the special file Global.asa file is to contain information that's global to the application. Each application in ASP has a Global.asa file which is located in the application's root directory.

v) Differentiate between the RESPONSE object and REQUEST object.

### Answer

The Response object of ASP contains all the information about the response sent from the web server to a web browser whereas the Request object contains all the information about the HTTP request sent from the web browser to the web server.

w) Rewrite the following code after removing errors with each correction underlined.

```
<HTML>
<HEAD>
<%
sub vbproc(num1,num2)
request.write(num1*num2)
%>
</HEAD>
<BODY>
<p>
Result: <%call vbproc(3)%>
</p>
```

```
<%vbproc 3,4>
</p>
</body>
</html>
```

### Answer

Corrected script with errors underlined:

```
<HTML>
<HEAD>
<%
sub vbproc(num1,num2)
Response.Write(num1*num2)
end sub
%>
</HEAD>
<BODY>
<p> Result: <%call vbproc(3,5)%> </p>
<%vbproc 3,4 %>
</p>
</body>
</html>
```

**x) Give the output for the following code segment:**

```
<html>
<body>
<% sometext = "Bye!"
max=Len(sometext)
For i=0 to max newtext=Left(sometext,i)
response.write(strReverse(newtext))
response.write("<br>")
next
%>
```

### Answer

B  
yB  
eyB  
!eyB

y) Shloka International is a company that provides software solutions to their clients. The company wishes to design an ASP coded web page with the following specifications:

- To display the current time and the name of the company on the opening page as displayed
- To display a greeting message "GOOD MORNING" if the user accesses the website between 5 and 12 A.M. and "GOOD EVENING" otherwise.

## SHLOKA International

The current date and time is : 1/25/2010 5:20:47 PM

GOOD EVENING

### Answer

```
<HTML>
<BODY>
<H1><CENTER>SHLOKA International</CENTER></H1>
The current date and time is: <%response.write(now())%>.
<BR>
<%IF HOUR(TIME())>5 HOUR(TIME())<12 THEN
RESPONSE.WRITE("GOOD MORNING")
ELSE
RESPONSE.WRITE("GOOD EVENING")
END IF %>
</BODY>
</HTML>
```

z) Name and specify the usage of any one ASP component.

### Answer

Ad Rotator component – used for controlling the rotation of advertising images in a website

aa) Differentiate between Properties and Methods of an object with the help of an example.

### Answer

An object's methods determine the things that one can do with the object whereas 2 an object's properties can be set to specify the state of the object. For example:

Object : Book

Method : Read the book

Properties : Number of pages in the book, author of the book

ab) Underline the errors in the following code and write the corrected script.

```
<%
DIM fname
fname=Request.Query("fname")
IF fname<>"" THEN
Response.Output("Hello " fname "<br />")
Response.Output("How are you today?")
END
%>
```

### Answer

Corrected code with errors underlined:

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```
<%
DIM fname
fname=Request.QueryString("fname")
IF fname<>"" THEN
Response.Write("Hello " & fname & "!<br />")
Response.Write ("How are you today?")
END IF %>
```

ac) Give the output for the following code segment:

```
<%
Arr=Array(25,14,20,45,25,4,1,31)
max=UBOUND(Arr)
FOR i=max TO 1 STEP -2
Arr(i)= 10*Arr(i)
RESPONSE.WRITE (Arr(i) & "<BR>" )
NEXT
%>
```

**Answer**

310  
40  
450  
140

ad) Green Environment Club is a company, which aims at creating an awareness among the people about the ill-effects of pollution. The company wishes to create a web site, which provides information about all their activities. Write the ASP coding for the home page with the following specifications:

- To display links to other pages. The links Reuse Recycle, Activities, Join Us link to the files Reuse.ASP, Activity.ASP and Join.ASP respectively.
- To display the number of times the page has been visited. The suggested format of the page is shown below:

|  |
|--|
| <p style="text-align: center;"><b>Environment Club</b></p> <p style="text-align: center;">Welcome to the green world. Click the links below to know more about us.</p> <p><a href="#">Reuse Recycle</a><br/> <a href="#">Activities</a><br/> <a href="#">Join Us</a></p> <p style="text-align: center;">This page has been viewed 2163 times</p> |
|--|

**Answer**

```
<HTML>
<TITLE>ASP TRY</TITLE>
<BODY>
<P>
Welcome to the green world. Click the links below to know
more about us.
<P>
```

```
<A HREF= "Reuse.ASP"> Reuse Recycle </A> <P>
<A HREF= "Activity.ASP"> Activities </A> <P>
<A HREF= "Join.ASP"> Join Us </A> <P>
</P>
<%set pgCount = Server.Createobject("MSWC.PageCounter")%>
<%pgCount.PageHit%>
This page has been viewed <%=pgCount.Hits%> times
</BODY>
</HTML>
```

ae) How many methods does the AdRotator component have? Name them.

### Answer

The Ad Rotator component has only one method called Getadvertising().

Ad Rotator component – used for controlling the rotation of advertising images in a website.

af) Underline the errors in the following code and write the corrected script.

```
<% OPTION EXPLICIT
DIM arr(8),max
Arr=Array(25,14,20,45,25,4,1,31)
max=UPBOUND(Arr)
FOR i=max TO 1 GO -2
Arr(i)*10= Arr(i)
DOCUMENT.WRITE (Arr(i) & "<BR>" )
LOOP %>
```

### Answer

#### errors underlined

```
<% OPTION EXPLICIT
DIM arr(8),max
Arr=Array(25,14,20,45,25,4,1,31)
max=UPBOUND(Arr)
FOR i=max TO 1 GO -2
Arr(i)*10= Arr(i)
DOCUMENT.WRITE (Arr(i) & "<BR>" )
LOOP %>
```

#### Corrected code

```
<% OPTION EXPLICIT
DIM arr(8),max,i ` here OPTION EXPLICIT is taken so all the variables should
defined.
Arr=Array(25,14,20,45,25,4,1,31)
max=UBOUND(Arr)
FOR i=max TO 1 step -2
Arr(i) = Arr(i)*10
Response.WRITE (Arr(i) & "<BR>" )
next %>
```

ag) Observe the program segment given below carefully and fill the blanks marked as Line 1 and Line 2 using methods of the RecordSet object for performing the required task.

```
<% DIM objConn, strConn, objRS
SET objConn = Server. CreateObject("ADODB.Connection")
strConn = "DSN=exam"
```

```
objConn. Open strConn
SET objRS = Server.CreateObject("ADODB.RecordSet")
objRS.Open "Student", objConn, 2, 2
----- `Line 1 Move the cursor to the end of file
----- `Line 2 to Add a new blank record
objRS("AdmNo") = Request.Form("AdmNo")
objRS("Name") = Request.Form("Name")
objRS.Update `to save the record in the database
objRS.Close
objConn.Close
SET objRS = Nothing
SET objConn = Nothing %>
```

### Answer

Line 1: 2  
objRS.MoveLast  
Line 2:  
objRS. AddNew

ah) Use the following script to answer the questions that follow:

```
<% DIM X
X = 15
Sub result()
  change
Y = 20
Response.write (X & Y)
  change
Response.write (X & Y)
END SUB
SUB change
Y= X+Y
END SUB  %>
```

- (i) What is the scope of variable X and Y in the above script?
- (ii) What is the value of X and Y before the subroutine "result" ends?

### Answer

- (i) Variable X has global scope while variable Y has local scope.
- (ii) 15 , 20  
15, 35

## Topic : VBScript(CBSE Question no.6)

- (a) Define array. What is the significance of array? How is it declared?



### Answer

array: an array is a collection of elements of same data type. All the elements in an array are identified by the same name but are differentiated by their index value.

Significance of Array:

- i. all elements of an array are stored in adjacent memory location.
- ii. All elements are identified by the same name.

Way of declaration:

Syntax

Dim arrayname (sizeofarray)

Example

Dim marks(4)

(b) Change the following script using For..... next without affecting the output:

```
dim name , i
i=1
name= "ARYAN"
do while i <= len (name)
    document.write instr(mid(name,i),"A")
i=i+1
loop
```

### Answer

conversion into for.....next

```
dim name, i
name="ARYAN"
for i=1 to len(name) step 1
    document.write instr(mid(name,i), "A")
next
```

c) Give the output for the following script code:

```
dim x,y
y=10
for x= 1 to 4 step 1
    if (x mod 2 ) = 0 then
        y=y-x
    else
        y=y+2*x
    end if
    document.write (y)
next
```

### Answer

output

12

10  
16  
12

d) Rewrite the following code after removing errors with each correction underline:

```
<script>
    sub result()
        dim K,M
        while (K<10 and M>5)
            if K % 3 = 0
                K=K+M
            else
                K=K-M
                M=M+3
            Loop
        Document.print("K=" +K)
    </script>
```

### Answer

```
correct code
<script language="VBScript">
sub result()
dim K, M
do while(K<10 AND M>5)
if K mod 3= 0 then
K=K+M
Else
K=K-M
M=M+3
End if
Loop
Document.write("K" & K)
End sub
</script>
```

e ) Write the HTML code for creating the form given below and also write the embedded VBScript code for the click event of the verify button, such that it displays a required message..

Apply the following validations :

- Enrollment number must be of 4 digit
- The charge per semester are as follows

| Facility |           | Course |           |
|----------|-----------|--------|-----------|
| Library  | Rs 5000   | MCA    | Rs. 50000 |
| Hostel   | Rs. 15000 | MBA    | Rs. 56000 |

- Calculate the charges per semester (six months) for the facility availed.

|                                       |                                  |                                 |
|---------------------------------------|----------------------------------|---------------------------------|
| Enrollment No.                        | <input type="text"/>             |                                 |
| Course.                               | <input type="radio"/> MBA        | <input type="radio"/> MCA       |
| Facility available                    | <input type="checkbox"/> Library | <input type="checkbox"/> Hostel |
| <input type="button" value="Verify"/> |                                  |                                 |

### Answer

VBscript code

```
<html>
<head><title> </title>
<script language = "VBscript">
sub result()
Dim rollno, chargesm rno
Rollno = cdbl(document.form1.txt1.value)
Rno=len(cstr(rollno))
If rollno < 4 or rollno >4 then
Msgbox("rollno must be of 4 digit")
End if
If form1.op(0).checked then
Charges = 56000
Elseif from1.op(0).checked AND from1.chk1.checked then
Charges= 56000 + 5000
Elseif from1.op(0).checked AND from1.chk2,checked then
Charges= 56000 + 15000
Elseif from1.op(0).checked AND from1.chk1.checked AND from1.chk2,checked then
Charges= 56000 + 5000 + 15000
End if
If form1.op(1).checked then
Charges = 56000
Elseif from1.op(1).checked AND from1.chk1.checked then
Charges= 56000 + 5000
Elseif from1.op(1).checked AND from1.chk2,checked then
Charges= 56000 + 15000
Elseif from1.op(1).checked AND from1.chk1.checked AND from1.chk2,checked then
Charges= 56000 + 5000 + 15000
End if
Msgbox("total charges for one semester="& charges)
End sub
</head>
</script>
```

```
<body>
<form name=:form1" method = "post">
enrollment no. < input type ="text" name="text 1" value= "0"> <br>
course <input type= "radio" value = "MBA" name=op>
<input type= "radio" value = "MCA" name=op> <br>
facility available input type= "checkbox" value = "library" name=chk1>
<input type= "checkbox" value = "hostel" name=chk2> <br>
<input type= "button" name = "btn" value = "verity" onclick= "result()">
</form>
</body>
</html>
```

f) What is the difference between array variable and scalar variables ?

**Answer**

| <u>ARRAY VARIABLE</u>   | <u>SCALAR VARIABLES</u>   |
|---|---|
| Declaration of array variable (one name for many variable having different index start from 0) is called array variable<br><br>Example:<br>Dim array (10) | Declaration of simple variable is called scalar variable<br><br>Example:<br>Dim x, y, z |

g) Change the following script using Do while ..... loop without affecting the output:

```
sum=0
for I = 0 to 4
    for j= 0 to i-1
        select case (i+j-1)
            case -1,0
                sum=sum+1
            case 1, 2,3
                sum=sum+2
            case else
                sum=sum+3
            end select
        next
    next
next
```

**Answer**

DO WHILE ---- LOOP

```
sum = 0
i=0
```

```
do while i<=4
j=0
do while j<=i-1
select case (i+j-1)
case -1, 0
sum = sum+1
case 1,2,3
sum = sum + 2
case else
sum=sum+3
end select
j=j+1
loop
i=i+1
loop
```

h) Give the output for the following script code:

```
dim a,b
a=10
b=2
do while b<12
    if a>b then
        document.write (a)
    else
        document.write(b)
    end if
    a=a-4
    b=b+3
loop
```

### Answer

OUTPUT

10    6        8        11

i) Rewrite the following code after correcting the errors:

```
<"script language" =vbscript>
    sub result()
        dim s
```

```
        For s=1 upto 10 jump 1
            If a mod 2 equals 0
                Ans=ans*a
            End if
        loop
        document.weite(ans)
```

```
</script>
```

## Answer

### Correct code

```
d) <script language = "vbscript">
sub result()
dim s
for s=1 to 10 step 1
if a mod 2 = 0 then
ans= ans * a
end if
next
document.write(ans)
end sub
<.script>
```

j)

|                                      |                      |
|--------------------------------------|----------------------|
| Enter your name                      | <input type="text"/> |
| The date is                          | <input type="text"/> |
| Today the day is                     | <input type="text"/> |
| The time is                          | <input type="text"/> |
| <input type="button" value="Click"/> |                      |

Write the code to display the above form and add the VBScript to display the results as written when user enters his name and clicks on button.

## Answer

### VBSCRIPT CODE

```
<html>
<head> date, day and time </title>
<script language = "VBScript">
sub result()
dim D,Da,t
D=date()
Da=dayofthe week(week day(date()))
T=time()
```

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```
Document.form1.textdate.value=D
Document.form1.textday.value=Da
```

```
Document.form1.texttime.value=t
```

```
End sun
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<form name = "form1" method = "post">
```

```
enter your name <input type="text" name = "textname"> <br>
```

```
the date is <input type="text" name = "textdate"> <br>
```

```
today the day is <input type="text" name = "textday"> <br>
```

```
the time is <input type="text" name = "texttime"> <br>
```

```
<input type = "button" name="btnclick" value="click" onclick="result()">
```

```
</form></body></html>
```

k) Differentiate between Local and Global scope of a variable in VbScript.

### Answer

| Local variable                            | Global  |
|---|---|
| i. declared inside a procedure            | i. declare outside a procedure                |
| ii. only access to a particular procedure | ii. valid for all the procedure function etc. |

1) Change the following script using Do while ..... loop without affecting the output:

```
<script language="VBScript">
```

```
sub result()
```

```
dim i,r,rev,k
```

```
k=000004320100
```

```
for i = 5 to 12 step 5
```

```
    r=k mod 10
```

```
    rev=rev*10+r
```

```
    k=k\10
```

```
next
```

```
end sub
```

```
</script>
```

### Answer

```
<script language = "VBScript">
```

```
sub result()
```

```
dim l, r, rev, k
```

```
k=000004320100
```

```
i=5
```

```
do while(i<=12)
```

```
i=5
```

```
do while (i<=12)
r=k mod 10
rev = rev * 10 +r
k=k/10
i=i+5
loop
end sub
</script>
```

m) Give the output for the following script code:

```
<script Language="VBScript">
  sub result()
    Name = "Web Tech"
    startword = true
    For i = 1 to Len (Name)
      if (startword) Then
        Document.Write (Mid (Name, i, 1) )
        if (Mid (Name, i, 1) = 'W' Then
          startword = false
        else
          startWord = true
        End if
      End If
    Next
  end sub
</Script>
```

**Answer**

Wb Tech

n) Rewrite the following code after correcting the errors:

```
<"script language" =vbscript>
  sub result()
    dim N1,N2,sum,i
    N1=messagebox("enter number")
    N2 =messagebox("enter number")
    Do while i<=N2
      sum=N1+N2
      if sum=100
        exit do
      next
    end sub
  end sub
</script>
```

**Answer**

```
<script language = "Vbscript">
sub result()
```



```
dim N1, N2, sum, i
N1= inputbox ("enter number")
N2= inputbox ("enter number")
Do while(i<=N2)
Sum = N1+N2
If sum = 100 then
Exit do
End if
Loop
End sub
</script>
```

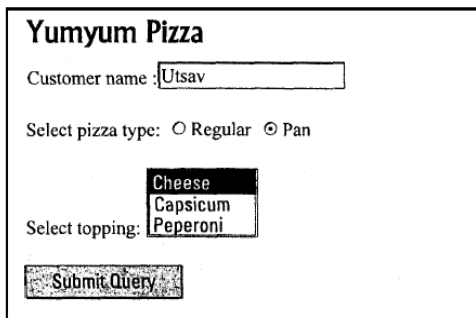
o ) Write the HTML code for creating the form given below and also write the embedded VBScript code for the click event of the submit button, such that it displays a message with the name entered by the user and amount of his bill. The costs are given below :

3  
Regular Pizza : Rs. 200  
Pan Pizza : Rs. 250

The toppings cost extra :

Cheese Topping : Rs. 80  
Capsicum Topping : Rs. 95  
Peperoni Topping : Rs. 70

If the user enters name as "Umang" and selects "Pan" and topping as "Cheese" then it should display the message **"Dear Umang ! Your bill amount is Rs. 330"** in a message box.



## Answer

VBScript code

```
<html>
<head><title> yummy pizza</title>
<script language = "VBscript">
sub result()
Dim name, itemnum
name = document.form1.txt1.value
itemnum = document.form1.select1.selectedindex
```

```

If form1.op(0).checked and itemnum = 0 then
total = 200 + 80
Endif
If form1.op(0).checked and itemnum = 1 then
total = 200 + 95
Endif
If form1.op(0).checked and itemnum = 2 then
total = 200 + 70
Endif
If form1.op(0).checked and itemnum = 0 then
total = 250 + 80
Endif
If form1.op(1).checked and itemnum = 1 then
total = 250 + 95
Endif
Endif
If form1.op(1).checked and itemnum = 2 then
total = 250 + 70
endif
Msgbox( ""dear " & name &"! you bill amount is RS." & total)
End sub
</head>
</script>
<body>
<form name=:form1" method = "post">
customer name. < input type = "text" name="text 1" > <br>
select pizza type <input tyoe = "radio" value = "regular" name="op">
<input tyoe = "radio" value = "pan" name="op">
<br>
<select name = "select 1" size = 3>
<option> cheese
<option> capsicum
<option> peproni
</select>
<input type= "button" name = "btn" value = "submit quarry" onclick= "result()">
</form>
</body>
</html>

```

p) Where and how VBScript inserted in HTML document? How many types of procedures are there? How we call procedure from main program.

## Answer

**Vbscript part inserted in the head part of the HTML using**  
**<script language ="vbscript">**

there are two type s of procedure

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[www.niosguess.com](http://www.niosguess.com) | [www.iitguess.com](http://www.iitguess.com)

- I) Sub Procedure
- II) Function Procedure

A subroutine is a named block of code that can be called from anywhere in a program to accomplish a specific task, which do not return a result to the caller.

Example:

```
Sub Sum(a,b)
Document.Write(a+b)
End Sub
```

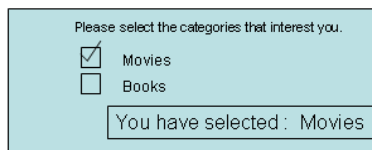
A function is a block of code that can be called from anywhere in a program to accomplish a specific task and which also returns a result or value to the caller.

Example:

```
Function Sum(a,b)
Sum = a+b
End Function
```

Procedure are always called from main program using CALL word if it is SUB procedure and FUNCTION NAME if it is a Function procedure.

q) Write the HTML code for creating the form given below and also write the embedded VBScript code for the click events of the checkboxes. When the user clicks on any check box the selected options must be displayed in the text box.



## Answer

```
<HTML>
<HEAD>
<SCRIPT LANGUAGE="VBScript">
Sub ShowResults()
Dim Result
Result = "You have selected: "
If chkmovie.Checked Then
Result = Result & " movies "
End If
If chkbook.Checked Then
Result = Result & " books "
End If
txtResult.Value = Result
End Sub
</SCRIPT>
</HEAD>
<BODY>
<H4>The Check Box Control - Click on a check box.</H4>
```

```
<P>Please select the categories that interest you.<BR>
<INPUT TYPE="chECKBOX" NAME="chkmovie" OncLICK="ShowResults">
Movies<BR>
<INPUT TYPE="chECKBOX" NAME="chkbook" OncLICK="ShowResults">
Books<BR>
<P>
<INPUT NAME="txtResult" SIZE="60">
</BODY>
</HTML>
```

r) Define the term event. Name the events to be used in the following situations:

(i) To display a message every time the viewer closes a web page.

(ii) To deactivate a particular textbox in a form

### Answer

An event describes actions that occur as the result of user interaction with a web page. For example, when a user clicks a hyperlink or a button an event is generated.

(i) OnUnload

(ii) OnBlur

s) Name the built-in functions to be used in the following situations:

(i) To return a number rounded to specified decimal places.

(ii) To check if string1 occurs within string2 and return the starting position of string2 in string1.

### Answer

i) ROUND( ) ½

ii) INSTR( ) ½

t) Give the output of the following code segment:

```
<SCRIPT LANGUAGE="VBScript">
```

```
Dim Names()
```

```
Count = 2
```

```
ReDim Names(Count)
```

```
Names(0)="Raj"
```

```
Names(1)="Simran"
```

```
Names(2)="Nisha"
```

```
ReDim Names(Count + 2)
```

```
Names(4)="Rohit"
```

```
Document.Write(Names(0))
```

```
Document.Write(Names(1))
```

```
Document.Write(Names(2))
```

```
Document.Write(Names(3))
```

```
</SCRIPT>
```

### Answer

MayaRohit

## Topic : Networks& OSS(CBSE Question no.7)

7.

a. which out of the following comes under Cyber Crime?

- i. Stealing three RAM from school computer lab.
- ii. Operating someone's Internet Banking account, without his knowledge.
- iii. Working on someone's computer with his/her permission.

**Answer**

ii. Operating someone's Internet Banking account, without his knowledge.

b. Write one advantage of Bus Topology of network. Also, illustrate how 4 computers can be connected with each other using star topology of network. Name all the devices used in connection.

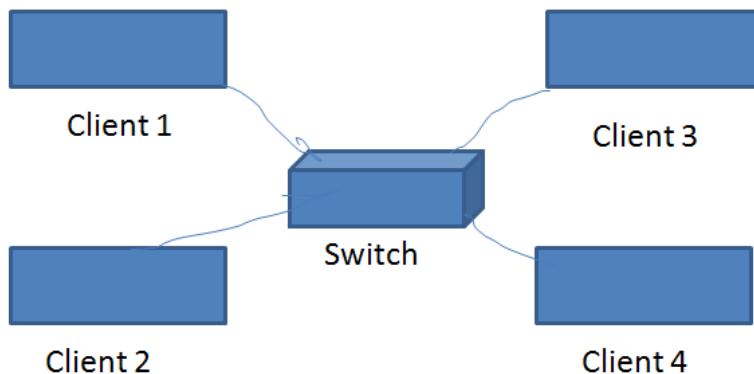
2

**Answer**

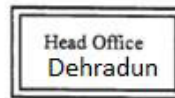
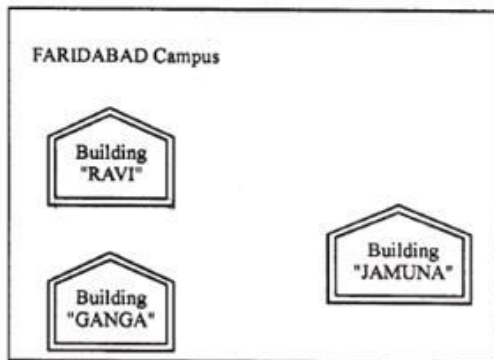
### ADVANTAGE BUS TOPOLOGY

short cable length.

Easy to extend



c. Karan consultants are setting up a secured network for their office campus at Faridabad for their day to day office and web based activities. They are planning to have connectivity between three building and the head office situated in Dehradun. Answer the questions (c1) to (c4) after going through the building positions in the campus and other details, which are given below.



**Distances between various buildings :**

|                                       |        |
|---------------------------------------|--------|
| Building "RAVI" to Building "JAMUNA"  | 20 m   |
| Building "RAVI" to Building "GANGA"   | 80 m   |
| Building "GANGA" to Building "JAMUNA" | 16 m   |
| Faridabad Campus to Head Office       | 460 KM |

**Number of Computers**

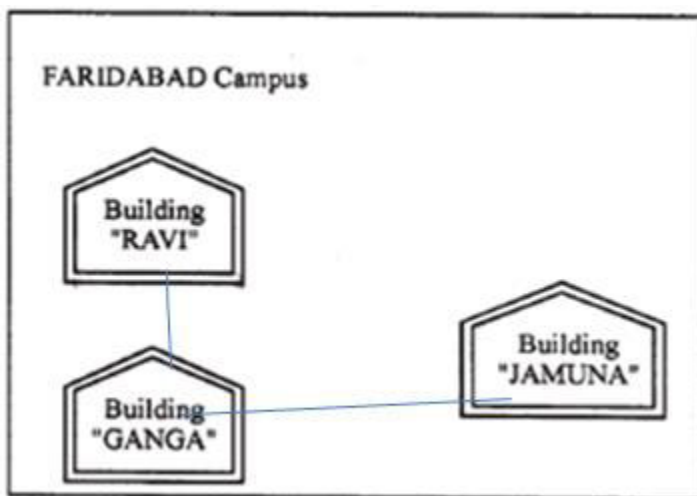
|                   |    |
|-------------------|----|
| Building "RAVI"   | 2  |
| Building "JAMUNA" | 15 |
| Building "GANGA"  | 51 |
| Head Office       | 20 |

C1. Suggest the most suitable place( i.e. block) to house the server of this organization. Also give a reason to justify your suggested location.

**Answer**

building GANGA – having maximum no. of computer.

C2. Suggest a cable layout of connections between the building inside the campus.



C3. Suggest the placement of the following devices with justification

1. Switch

2. Repeater

**Answer**

1. In all the building as in every building there are more than one computer .

2.between GANGA and RAVI as the distance is more than 60 mtr

C4. The organization is planning to provide a high speed link with its head office situated in the DEHRADUN using a wireless connection. Which transmission methodology will be most suitable for this job?

**Answer**

Radio wave

d. Write examples of one proprietary and one open source software.

**Answer**

proprietary - Windows 7

open source software - internet explorer

e. Ms. Shivi , General Manager of United Nations Corporate recently discovered that the communication between her company's account office and HR office is extremely slow and signals drop quite frequently. These offices are 120 meters away from each other and connected by an Ethernet cable.

(i) Suggest her a device, which can be installed in between the offices for smooth communication.

**Answer**

**Repeater**

(ii) Which type of network is formed by having this kind of connectivity out of LAN,MAN and WAN?

**Answer**

**LAN**

f. Expand the following

i. GPL : General public license

ii. OOo : open office.org

g. Srishti is giving a remote demonstration of a School Management Software to one of her client. She needs to login to the client's computer and operate it using her own PC. Which protocol is she likely to use to perform the above task?

(i) FTP

(ii)PPP

(iii)Telnet

**Answer**

iii) telnet

h. Differentiate between proprietary and open source software.

**Answer**

proprietary software required license to use the software for example windows 7 open source software are free to use and share. for example Linux

i. What out of the following, you will use to have an audio-visual chat with an expert sitting in a faraway place to fix-up a technical issue/?

- (i) FTP
- (ii) Email
- (iii) VOD

**Answer**

ii) Email

j. Which out of the following does not come under Cyber Crime?

- i. Stealing three RAM from school computer lab.
- ii. Operating someone's Internet Banking account, without his knowledge.
- iii. Entering in someone's computer remotely and copying data, without seeking his permission.

**Answer**

: i) Stealing three RAM from school computer lab.

k) name the official websites for the following websites

- i. FSF
- ii. OSI

**Answer**

- i. [www.gnu.org](http://www.gnu.org)
- ii. [www.opensource.org](http://www.opensource.org)

l) Name the world's largest open source software development websites.

**Answer**

Sourceforge.net

m) Write full form of

- 1st. MIT/LCS
- 2nd. DARPA

**Answer**

- 1<sup>st</sup> Massachusetts Institute of Technology/ laboratory for Computer Science
- 2<sup>nd</sup> Defense advanced Research project Agency

n) IDENTIFY following symbols

- i. 
- ii. 



### Answer

Mozilla Web Browser

Tomcat

0)Identify the 57following networks types

iii. It operate at speed between 10 and 100 Mbps.

iv. It operate at speed less than 10 Mbps.

### Answer

iii) LAN

iv)WAN

p)Define Physical and logical topology.

### Answer

Physical topology : physical topology of a network refers to the layout of cables, computers and other peripherals.

Logical topology :is the mehod used to pass the information between the computers.

Q)Differentiate between ring and bus topology .

### Answer

- a. ring topology
- i. data travels in one direction only
  - ii. also called loop.
  - iii. short cable length
  - iv. suitable for optical fibers

- bus topology
- short cable length.
  - Easy to extend
  - fault diagnosis is difficult
  - nodes must be intelligent to select the data sent.

p) What is cyber law?

### Answer

cyber law: it refers to the set of laws governing the usage of cyberspace/ internet. It include intellectual property, privacy, freedom of expression and jurisdiction.

q)Differentiate between synchronous and asynchronous transmission.

### Answer

- c. synchronous transmission
- i. characters are transmitted as group, preceded and followed by control characters
  - ii. advantage – speed
  - iii. disadvantage – inaccuracy

- asynchronous transmission
- each character is transmitted separately the character preceded by a start bit and followed by stop bit.
  - advantage- accuracy
  - disadvantage – slow transmission time

r) Explain the following term

- i. WLL
- ii. GSM
- iii. IMAP

**Answer**

i. WLL: wireless local loop

WLL is mainly being used for voice technologies.

WLL is a system that connects subscribers to the public.

Switched telephone network(PSTN) by using radio signals as substitute for copper wire for all the part of the connection between the subscriber and the switch.

ii.GSM” global system for mobile communications

GSM is the most popular standard for mobile phones in the world. GSM is a wide area wireless communications system that uses digital radio transmission to provide voice, data and multimedia communication service.

iii) IMAP: internet mail access protocol

IMAP was designed to help the user who uses multiple computers.

The basic idea behind IMAP is for the E.mail server to maintain a central repository that can be accessed from any machine.

S) Differentiate between star and bus topology .

**Answer**

| <b>STAR</b>  | <b>BUS</b>  |
|--|---|
| <ul style="list-style-type: none"> <li>• Easy to install and wire (even for multifloor plans of network) long cable length</li> <li>• Expensive as compared to bus, one device per connection.</li> <li>• Easy to detect fault and to remove part.</li> <li>• Central node dependency</li> </ul> | <ul style="list-style-type: none"> <li>• East to connect a computer or peripheral short cable length</li> <li>• Slower as compare to star</li> <li>• Difficult to identify the problem if the entire network shuts down.</li> </ul> |

t) What is ARPANET ?

**Answer**

**ARPANET** : “ advanced research projects agency network”

the goal of this project was to connect computers at different university and US defense.

It was developed in the mid-1960.

u)Differentiate between message and packet switching.

**Answer**

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Similar to the post office mailing system</li> <li>• Message switching is also known as store and forward</li> <li>• Message stored in disk</li> </ul> | <ul style="list-style-type: none"> <li>• Long messages are subdivided into short packets</li> <li>• Each packet may be sent to its destination separately</li> <li>• All the packets are stored in the main memory instead of disk.</li> </ul> |
|---|--|

v) Explain the following term

3

i. CDMA

ii. WAIS

### Answer

i) **CDMA**: code division multiple access: a digital wireless telephony transmission technique. CDMA cannot offer international roaming.

ii) **WAIS**: “wide area information server”

it maintains separate indexes of the contents of selected documents. These indexes are same as indexes available at the book of book.

w). Write a short note on

1) Interspace 2) Intranet

### Answer

- interspace: it is a vision of what the internet will become, where users cross correlate information in multiple ways from multiple sources
- intranet: it is a local collection of interconnected network, governed by the local authority.

A private owned network is termed as intranet.

x). Define the following network devices :

bridge, router

### Answer

.Bridge: it is used to connect two same types which are physically separated but logical same network.

Router : it connects two computer networks that are physically same and that use same communication architecture and protocols.

y). Write short notes on the following communication protocols:

TCP/IP , FTP

### Answer

TCP/IP : it is a software that controls the movement of messages across the internet. It is transmission control protocol/ internet protocol.

FTP. File transfer protocol used for uploading file on server.

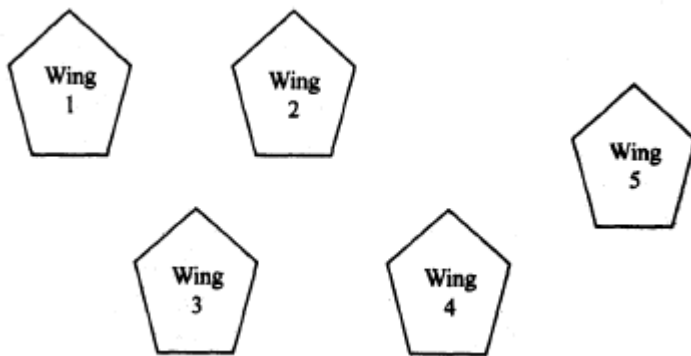
z) Explain the following network security concepts.  
firewall ,Crackers.

**Answer**

firewall: used to filter the messages to allow only those that are wanted . it is an electronic blocking mechanism that will not allow unauthorized intruders.

Crackers: are the people who break and enter computer network without authorized access with malicions intenl.

aa) V.A associate is a big organisation and has 5 wings where it runs its operations (shown below):



(4

The distances between the different wings are given below :

|                        |          |                        |         |
|------------------------|----------|------------------------|---------|
| <b>Between 1 and 2</b> | 40 mts.  | <b>Between 2 and 4</b> | 25 mts. |
| <b>Between 1 and 3</b> | 40 mts.  | <b>Between 2 and 5</b> | 68 mts. |
| <b>Between 1 and 4</b> | 55 mts.  | <b>Between 3 and 4</b> | 03 mts. |
| <b>Between 1 and 5</b> | 130 mts: |                        |         |
| <b>Between 2 and 3</b> | 95 mts.  |                        |         |

Each wing contains following number of computers :

**Wing No. of Computers**

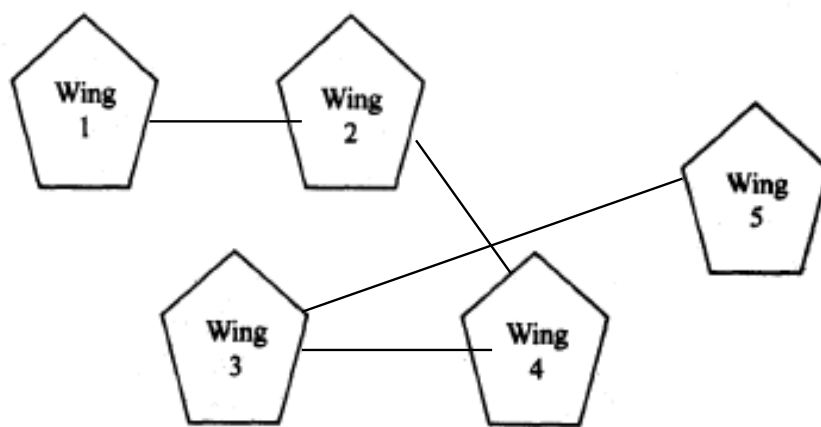
|   |     |
|---|-----|
| 1 | 70  |
| 2 | 35  |
| 3 | 13  |
| 4 | 50  |
| 5 | 160 |

Answer the following questions based on the above given information:

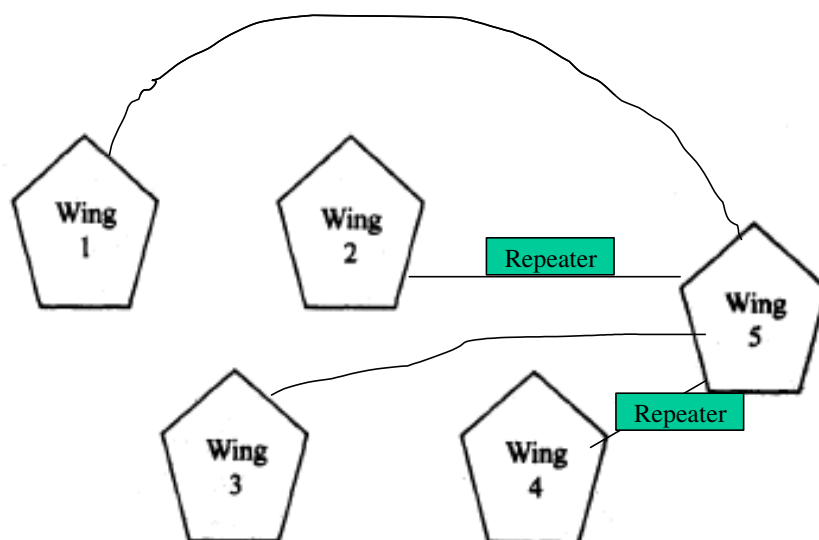
- (i) Suggest suitable cable layout(s) for connecting the wings.
- (ii) Where do you think the server should be placed and explain why?
- (iii) Suggest the type of cable should be used if the organisation wants the most economical option.
- (iv) Where and why should repeaters and switch be used?

## Answer

On the basis of the shortest cable length (BUS Topology)



On the basis of the server (Star Topology)



## II) Wing 5

Reason: i) number of computer is more than any other wing.  
ii) more computer will get good communication speed.

III) coaxial cable: though the most economic is twisted paired but the number of computer is more so it is not suitable to use twisted pair.

Coaxial is more suited for five wing having above 300 computer.

IV) **Repeater** is used to boost the speed of signal and only used if the cable length (if coaxial) is more than 60m.

repeater should be used between

- i) wing 4 and wing 5
- ii) wing 2 and wing 4

Switch in every wing as the number of computer more than one in every wing. A switch is used to connect multiple computer with the server using a device HUB or SWITCH.

ab) Define the term protocol.

### Answer

A protocol is a set of rules that governs data communications between two devices.

ac) Aleena is interested in transferring few Songs from her mobile phone to Sanyan's mobile phone. Suggest two suitable wireless options she may opt for to do the same.

### Answer

Aleena can use Infrared or Bluetooth to transfer the songs.

ad) Differentiate between a Hub and a Switch. (Give one point)

### Answer

A hub is a common connection point for devices in a network. Hubs are commonly used to connect segments of a LAN.

A switch is similar to a hub, in that it provides a central connection between two or more computers on a network, but with some intelligence.

ae) Explain the following terms:

- i. Firewall
- ii. Cracker

### Answer

**Firewall:** Software/hardware used to prevent unauthorized access from a computer system or network of computer systems.

**Cracker:** A person who breaks into a computer system/network without having authorized access with a malicious intent.

af) Mr. Ganpati prasad is an entrepreneur who has recently set up a new business. he needs to create a lot of documents, presentations, databases and spreadsheets to maintain data and spread his business. However, he does not have the money to purchase any of the proprietary software which offers all these packages. Can you suggest what software can Mr. Ganpati use for which he has to pay no licensing fee?

**Answer**

Mr. Ganpati prasad can use Free open source software to save on licensing fee.

ag) Why is optical fibre cable preferred over twisted pair cable and coaxial cable?

**Answer**

A twisted pair consists of two insulated copper wires, each with its own plastic insulation, twisted together in a helical form whereas the Coaxial cable is an electrical cable consisting of a single round conducting wire, surrounded by an insulating spacer, surrounded by a cylindrical conducting sheath, and usually surrounded by a final insulating layer.

ah) Explain the following terms:

i. Shareware

ii GSM

iii TCP/IP

**Answer**

i. **Shareware:** A method of marketing software where a program is distributed freely, and users may try it before paying for it.

ii. **GSM:** Global System for Mobiles, it is the international standard for wireless technology. GSM allows users to utilize one phone and one number in many countries throughout the world.

iii. **TCP/IP:** Transmission Control Protocol/Internet Protocol. A group of protocols that specify how computers communicate over the Internet.

ai) Name any two units to measure data transfer rate.

**Answer**

Data transfer rate is measured in bps (bytes per second), kbps (kilobytes per second), Mbps (Megabytes per second), Gbps (Gigabytes per second) or Tbps (Terabytes per second).

aj) Name the protocol used for sending and receiving e-mails.

**Answer**

SMTP

ak) Write one difference between a Hub and a Gateway.

**Answer**

Hubs are commonly used to connect segments of a LAN whereas a gateway is a device that connects dissimilar networks.

al) Explain the following terms:

i. Telnet

ii. CDMA

**Answer**

i. **Telnet:** A text-based Internet program used for connecting to a remote host or server.

ii. **CDMA**: Code Division Multiple Access: a digital wireless telephony transmission technique.

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