

SAMPLE PAPER III BLUE PRINT

**SUBJECT: MULTIMEDIA AND WEB TECHNOLOGY
PAPER: THEORY**

**CLASS XII
MAX MARKS: 70
TIME: 3 HOURS**

SNO	UNIT	KNOWLEDGE			UNDERSTANDING			APPLICATION			TOTAL
		LA	SA	VSA	LA	SA	VSA	LA	SA	VSA	
1	COMPUTER SYSTEM			2(2)			1(1)		2(1)		5(4)
2	WEB TECHNOLOGY			2(2)		4(2)		4(1)			10(5)
3	WEB DEVELOPMENT										
a)	ASP		2(1)			4(2)		3(1)	4(2)	5(5)	20(13)
b)	Review of class XI										
	HTML			1(1)				8(1)		1(1)	10(3)
	VBSCRIPT					2(1)		4(1)	4(2)		10(4)
4	MULTIMEDIA AND AUTHORING TOOLS			3(3)		8(4)		4(1)			15(8)
	TOTAL MARKS/NO. OF QUES.										70(37)

NOTE: THE NO. OF QUESTION ARE PUT WITHIN THE BRACKETS AND THEIR MARKS OUTSIDE THEIR BRACKETS.

SAMPLE QUESTION PAPER 3
MULTIMEDIA & WEB TECHNOLOGIES (Code 067)
Class XII

Max. Marks : 70

Duration : 3 hrs.

1. a) Name any two types of relationships that can be set between two tables. 1
- b) Name the following: 1
 - (i) A data type which can be used to automatically store monetary values with appropriate sign, commas and decimals.
 - (ii) A part of the Microsoft Office suite that is used to create and manage databases
- c) Name the extension of the file created when a Flash movie is published using a Macintosh projector. 1
- d) Study the following data and answer the questions given below:

Table : Student

Adm_No	Name	Class	DOB	Percentage
A101	Sujata	12 A	09/08/1984	78
A102	Anju	12 A	12/07/1983	82
A103	Ananth	12 C	07/08/1984	67

- (i) Suggest a field from the above table, which can be set as the primary key. 1
 - (ii) Suggest the data types that should be used for each of the fields in the above table. 2
 - e) Give the full forms and a difference between .DAT and a .GIF file with respect to multimedia. 2
 - f) Shyama Ad Agency 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 codec to view the file. Keeping these requirements in mind, suggest the most suitable format from the following: 2
 - (i) AVI
 - (ii) MPEG
 - (iii) JPEG

Justify your choice.
- 2. Answer the following questions based on Macromedia Flash:**
- a) What is a key frame? 1
 - b) Define the term stage. 1
 - c) Explain the terms Shape Tweening and Motion Tweening with the help of an example. 2
 - d) Explain the usage of Timeline. Name any two components of the timeline. 2

e) Observe the figure given below and do as directed:

4



- The text on the left hand side shows the position and size for frame 1. The colour of the text is black.
- The text on the right hand side shows the position and size for frame 20. The colour of the text is grey.
- The text moves from frame 1 to frame 20 over a period of time.

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

3. Answer the following questions based on HTML:

- Write the HTML command to create a textbox which can accept maximum of 20 characters with a default value "Enter Name". 1
- Name any two structural tags of HTML. 1
- Write the HTML code to generate a Web Page in the format given below: 8

Consider the following while writing the HTML code:

- Background colour of the page should be "Cyan".
- Text style should be Comic Sans MS and colour should be Red.
- Picture used in the page is the file "activity.jpg"
- Table should have a border of color blue.
- Use the concept of nested lists for creating the list given in the web page with specified bullets.
- Pages linked to :
 - Indoor Activities as "in.html"
 - Outdoor Activities as "out.html"
- Bottom message should be of size 2.

The Little Starlings



Welcome to our World....

The Little starlings is an hobby club that believes in all-round development of a child through various activities.

We offer the following activity choices:

1. Indoor Activities
 - Dramatics
 - Dance
2. Outdoor Activities
 - Horse-riding
 - Swimming

Activity Charges	
Activity	Monthly Charges
Dramatics	Rs. 250
Dance	Rs. 350
Horse-riding	Rs. 400
Swimming	Rs. 500

For enquires Mail to us

4. Answer the following questions based on ASP:

- a) Write a command to remove the leading and trailing spaces from a character variable NAME, where NAME = "##Smriti# Malhotra###" (where # denotes a blank space). 1
- b) Name the web server required to execute ASP on Windows Operating system. 1
- c) Observe the following script: 1

```
<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.

- d) Mention any two features of ASP. 2
- e) Define variant datatype. Name any two sub-types of the variant datatype. 2
- f) Give the output for the following : 3
- (i) `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))`

5. Answer the following questions based on ASP:

- a) Name and specify the usage of any one ASP component. 1
- b) Differentiate between Properties and Methods of an object with the help of an example. 2
- c) Underline the errors in the following code and write the corrected script. 2
- ```

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

```
- d) Give the output for the following code segment: 2
- ```

<%
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
%>

```
- e) 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: 3
- 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:

Environment Club

Welcome to the green world. Click the links below to know more about us.

[Reuse Recycle](#)

[Activities](#)

[Join Us](#)

This page has been viewed 2163 times

6. Answer the following questions based on VBScript:

a) Differentiate between IF...THEN..ELSE and SELECT...CASE statements with the help of an example. 2

b) Write the equivalent script for the following code using DO..WHILE without effecting the output: 2

```
<SCRIPT LANGUAGE="VBScript">
  DIM arr(5)
  counter=1
  DO UNTIL counter > 5
    arr(counter) = counter *counter
    counter =counter + 1
  LOOP
</SCRIPT>
```

2

c) Give the output for the following script:

```
<SCRIPT LANGUAGE="VBScript">
B=10
FOR A=1 TO 12 STEP 3
  C=A+B
  DOCUMENT.WRITE(C)
  B=B-1
  DOCUMENT.WRITE ("<BR>")
NEXT
</SCRIPT>
```

d) Write an HTML code for creating a form, which accepts the birth date from the user in a textbox and displays the day of the week in a message box on the click of a button. 4

7. Answer the following questions based on Communication and network concepts:

a) Name any two units to measure data transfer rate. 1

b) Name the protocol used for sending and receiving e-mails. 1

c) Write one difference between a Hub and a Gateway. 2

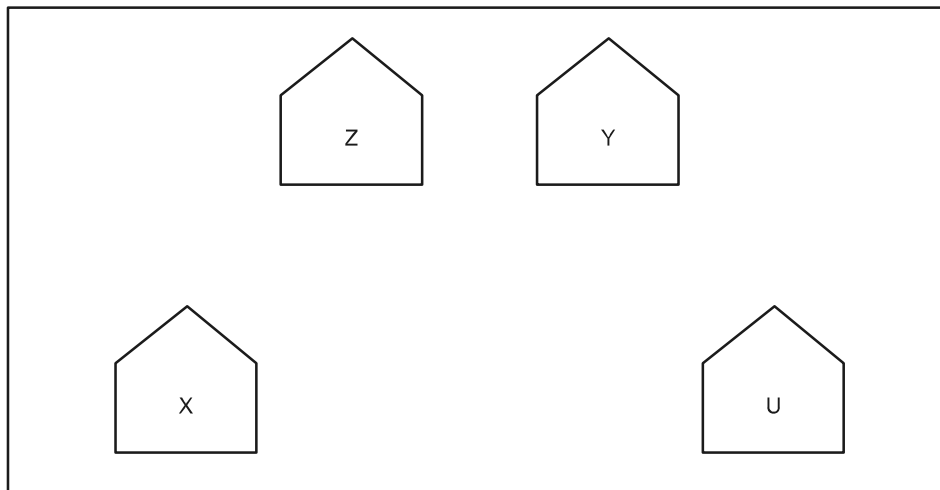
d) Explain the following terms:

i. Telnet

ii. CDMA

2

e) The Cyber Mind Organisation has set up its new Branch at Mizoram for its office and web based activities. It has 4 Wings of buildings as shown in the diagram: 4



Center to center distance between various blocks

Wing X to Wing Z	40m
Wing Z to Wing Y	60m
Wing Y to Wing X	135m
Wing Y to Wing U	70m
Wing X to Wing U	165m
Wing Z to Wing U	130m

Number of computers

Wing X	50
Wing Z	130
Wing Y	40
Wing U	15

- (i) Suggest a most suitable cable layout of connections between the Wings and topology.
- (ii) Suggest the most suitable place (i.e, Wing) to house the server of this organization with a suitable reason with justification.
- (iii) Suggest the placement of the following devices with justification:
 - Repeater
 - Hub/Switch
- (iv) The organization is planning to link its head office situated in Delhi with offices at Mizoram. Suggest an economic way to connect it; company is ready to compromise on the speed of connectivity. Justify your answer.

Answering Scheme - SAMPLE QUESTION PAPER 3
MULTIMEDIA & WEB TECHNOLOGIES (Code 067)
Class XII

Max. Marks : 70

Duration : 3 hrs.

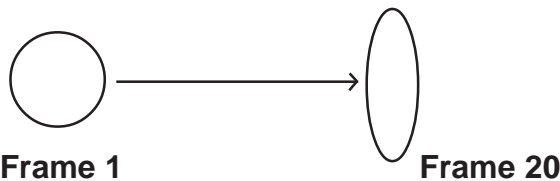
1. a) i) One-to-One 1
 ii) One-to-Many
 iii) Many-to-Many
(Any two)
(½ mark each for naming any two correct types of relationships)
- b) i) Currency ½
 ii) MS Access ½
(½ mark for each part)
- c) The extension of the file created when a Flash movie is published using a Macintosh projector is .hqx. 1
(1mark for naming the correct extension)
- d) (i) The Adm_No should be the primary key as it will be unique for each student. 1
(1 mark for naming the correct field)
- (ii)

Field Name	Data Type	2
Adm_No	Text	
Name	Text	
Class	Text	
DOB	Date/Time	
Percentage	Number	
- (2 marks if all correct data types are given)**
(1 mark if atleast 3 correct data types are given)
- e) .DAT stands for Data File Format and the .GIF stands for Graphics Interchange Format. 2
 A .DAT extension is used for storing files of any kind whereas the .GIF file format is used for image files.
(½ mark for each full form)
(1 mark for the correct difference)
- f) MPEG is the most suitable format because MPEG videos can be viewed on DVD player as well as the internet and no special codec is required to view them. AVI format is not suitable because it cannot be played on DVD player and require special codecs to view them. JPEG format can only be used for static images and hence is not suitable. 2
(1 mark for naming the correct format)
(1 mark for the correct justification)

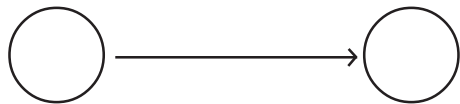
2. a) A keyframe is a frame in which the user can define a change in an animation or include frame actions to modify a movie. 1
(1 mark for the correct definition)

- b) Stage is the actual canvas where all the objects to be included in the movie are placed. This is where you draw graphics and preview the movie as you build it. 1
(1 mark for the correct definition)

- c) Shape tweening refers to making one shape appear to change into another shape over time. By tweening shapes, you can create an effect similar to morphing. For example: 2



Motion tweening refers to changing the position of an object over time. Motion tweening is helpful in creating an animation effect. For example:



(½ mark for each definition)

(½ mark for each example)

- d) The Timeline is used to organize and control a movie's content over time in layers and frames so that each movie instance happens at the correct times. The major components of the Timeline are layers, frames, and the play head. 2

(1 mark for the correct usage)

(1 mark for correctly naming any two components of Timeline)

- e) 4

- Select frame 1 from the timeline and select Insert → New Symbol → Graphic
- Create the black coloured text 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 of the text
- Change the colour of the text by selecting
- Select any frame between 1 and 20
- Right click the mouse button and Select Create shape tween.

(½ mark for each correct step)

3. **Answer the following questions based on HTML:**

- a) `<INPUT TYPE=TEXT MAXLENGTH=20 VALUE="Enter Name">` 1

(½ mark for naming the <INPUT> tag)

(½ mark each for TYPE, MAXLENGTH & VALUE attributes)

- b) <HTML>, <BODY>, <HEAD>, <TITLE> 1
(Any Two)
(½ mark each for naming any two structural tags)
- c) Coding: 8
- ```

<HTML>
<BODY BGCOLOR="CYAN">
<H2 ALIGN=CENTER> The Little Starlings </
H2>
<HR SIZE=3 COLOR=BLUE>

<IMG SRC="ACTIVITY.GIF" HEIGHT=120 WIDTH=180
ALIGN=LEFT>
<P>Welcome to our World.....

The Little Starlings is an hobby
club that believes in all-round development of a child
through various activities.

<P> We offer the following activity choices:</P>

Indoor Activities
<UL TYPE=SQUARE>
Dramatics
Dance

Outdoor Activities
<UL TYPE=CIRCLE>
Horse-riding
Swimming

<TABLE ALIGN=CENTER BORDER=2 BORDERCOLOR="blue">
<CAPTION>Activity Charges</CAPTION>
<TR><TH>Activity</TH><TH>Monthly Charges</TH></TR>
<TR><TD>Dramatics</TD><TD>Rs.250</TD></TR>
<TR><TD>Dance</TD><TD>Rs.350</TD></TR>
<TR><TD>Horse-riding</TD><TD>Rs.400</TD></TR>
<TR><TD>Swimming</TD><TD>Rs.500</TD></TR>
</TABLE>
<HR SIZE=3 COLOR=BLACK>
<P ALIGN=CENTER>For enquires Mail to us</P>

```
- (1 mark for correct use of <HTML> and <BODY> tags)**  
**(1 mark for correct use of <FONT> tag)**  
**(½ mark for displaying heading correctly)**  
**(½ mark for correct use of <HR> tag)**  
**(1 mark for correct use of <IMG> tag)**  
**(1 mark for correct use of <P> tag with <FONT> or <SPAN> tag to change color of text in between)**

**(1 mark for correct use of <OL> and <UL> tags in proper nested order)**

**(1 mark for correct use of <A> tag for creating links)**

**(½ mark making table border color blue)**

**(½ mark for correct display of bottom message)**

4. a) TRIM (NAME) 1

**OR**

LTRIM (RTRIM (NAME) )

**OR**

**(1 mark for the correct command)**

**(½ mark to be awarded if only the leading or trailing blanks have been removed)**

b) PWS or IIS 1

**(1 mark for the correct server name)**

c) 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. 1

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>
```

**(½ mark for identifying the error)**

**(½ mark for writing the corrected code)**

d) Two features of ASP: 2

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

**(1 mark each for any two correct features)**

e) A Variant is a special kind of data type that can contain different kinds of information, depending on how it's used. 2

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

**(1 mark for correct definition)**

**(½ mark each for naming any two correct sub-types)**

- f) i) Con 1  
 ii) 12 1  
 iii) 41 1

**(1 mark for each correct output)**

5. a) Ad Rotator component – used for controlling the rotation of advertising images in a website 1

**OR**

**(½ mark for naming any one component)**

**(½ mark for its usage)**

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

Object : Book

Method : Read the book

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

**(1 mark for the differentiation point)**

**(1 mark for the example)**

- c) Corrected code with errors underlined: 2

<%

DIM fname

fname=Request.QueryString("fname")

IF fname<>" " THEN

    Response.Write("Hello " & fname & "!<br />")

    Response.Write("How are you today?")

END IF %>

**½ mark each for correcting any 4 errors)**

**( Give 1½ mark if the child has identified errors but not written the corrected code)**

- d) 310 2  
 40  
 450  
 140

**(½ mark for each correct line of output)**

- e) **Coding:** 3

<HTML>

<TITLE>ASP TRY</TITLE>

<BODY>

<P>

Welcome to the green world. Click the links below to know more about us.

<P>

```

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

```

**(1 mark for creating the hyperlinks)**

**(1 mark for creating the Server object)**

**(1 mark for using PageHit & displaying the count)**

6. The **If...Then** statement offers only one alternative for the value being checked whereas **SELECT ... CASE** is well suited for situations where there are a large number of possible conditions for the value being checked. For example: 2

|                                                                                                |                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> If Location = "Delhi" Then     ShippingFee= 400 Else     ShippingFee = 500 End If </pre> | <pre> Select Case Location     Case "Delhi"         ShippingFee= 400     Case "Mumbai"         ShippingFee= 300     Case Else         ShippingFee = 500 End Select </pre> |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**(1 mark for the correct difference)**

**(1 mark for the example)**

- b) The code using **DO... WHILE** is: 2

```

<SCRIPT LANGUAGE="VBScript">
DIM arr(5)
counter=1
DO WHILE counter <= 5
 arr(counter) = counter *counter
 counter =counter + 1
LOOP
</SCRIPT>

```

**(1 mark for correct syntax of DO..WHILE loop)**

**(1 mark for correct condition check of counter)**

- c) 2
- 11
- 13
- 15
- 17

**( ½ mark for each correct output line)**

**(Give 1½ marks if the output is given without line breaks)**

d) <HTML>  
 <HEAD>  
 <SCRIPT LANGUAGE="VBSCRIPT">  
 SUB fun  
   DIM w,dat,d  
 dat=cdate(document.f1.txt1.value)  
 w=weekday(dat)  
 SELECT CASE w  
   CASE 1  
     d="Sunday"  
   CASE 2  
     d="Monday"  
   CASE 3  
     d="Tuesday"  
   CASE 4  
     d="Wednesday"  
   CASE 5  
     d="Thursday"  
   CASE 6  
     d="Friday"  
   CASE 7  
     d="Saturday"  
 END SELECT  
 MSGBOX "You were born on :"& d  
 END SUB  
 </HEAD>  
 <BODY>  
 <FORM NAME="F1">  
 <P> Enter your date of birth :<INPUT TYPE="TEXT"  
 NAME="TXT1"><BR><BR>  
 <INPUT TYPE="BUTTON" NAME="B1" VALUE="CLICK ME!"  
 ONCLICK="FUN">

**(1 mark for correct declaration and end of sub routine)**

**(1 mark for correct calculation of day)**

**(½ mark for correct use of <FORM> tag)**

**(1 mark for correctly creating the text box and button)**

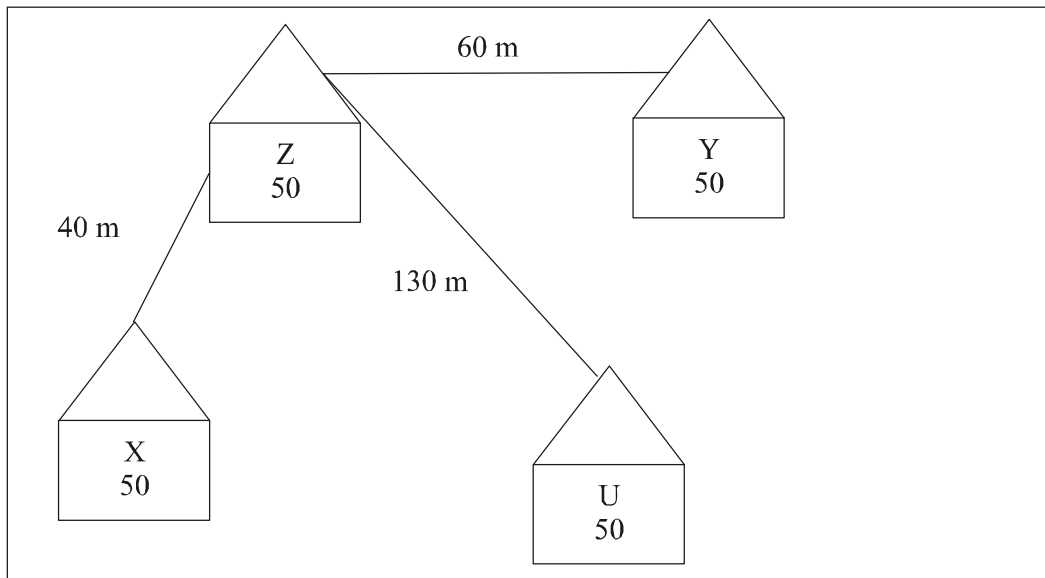
**(½ mark for correct usage of onClick event)**

7. a) 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). 1  
**(½ mark each for naming any two correct units)**
- b) SMTP 1  
**(1 mark for the correct protocol name)**
- c) Hubs are commonly used to connect segments of a LAN whereas a gateway is a device that connects dissimilar networks. 2  
**(2 marks for the correct difference)**

- d) i. **Telnet:** A text-based Internet program used for connecting to a remote host or server. 2  
 ii. **CDMA:** Code Division Multiple Access: a digital wireless telephony transmission technique.

**(1 mark for each correct definition)**

- e) (i) Most suitable layout: 1



**(1 mark for the correct layout)**

- (ii) Wing Z as it has largest number of computers.

**(½ mark for naming the correct block)**

**(½ mark for correct justification)**

- (iii) A **repeater** needs to be placed along the wire between wings Z to U as the distance between them is more than 70 m.

A **hub/switch** each would be needed in all the wings, to interconnect the group of cables from the different computers in each wing.

**(½ mark for correct placement)**

**(½ mark for correct justification)**

- (iv) TCP/IP Dial Up as it is the most economic option with a reasonable speed.

**(½ mark for correct technology)**

**(½ mark for correct justification)**