

Central Board of School Education

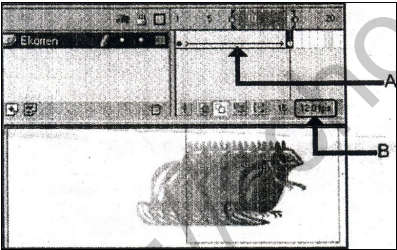
Marking Scheme 2016


[Official]

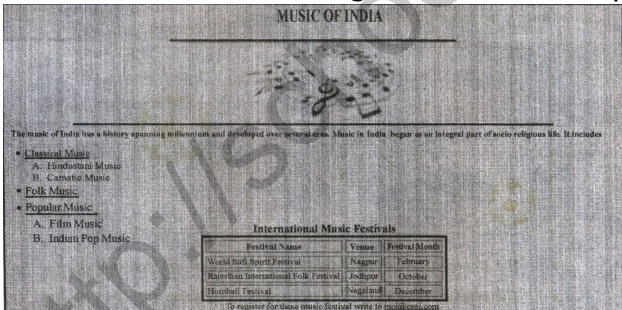
Important Note:

- All answers provided in the Marking scheme are SUGGESTIVE.
- Examiners are requested to accept all possible alternative correct answer(s).
- Wherever HTML Tags are asked - ignore the format/additional arguments if so given in the answer(s)
- Wherever multiple answers are suggested, they are in order of appropriateness

		SECTION A																											
Q1.																													
	(a)	Observe the table APPS of a Database named Android Apps given below carefully and answer the questions that follow: Table: APPS <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>AppCode</th> <th>AppName</th> <th>Appusers</th> <th>AppUse</th> </tr> </thead> <tbody> <tr> <td align="center">101</td> <td align="center">Instagram</td> <td align="center">300000</td> <td align="center">Social Media</td> </tr> <tr> <td align="center">102</td> <td align="center">Google Play Music</td> <td align="center">150000</td> <td align="center">Free Music</td> </tr> <tr> <td align="center">103</td> <td align="center">Viber</td> <td align="center">2000</td> <td align="center">Free Music</td> </tr> <tr> <td align="center">104</td> <td align="center">Dropbox</td> <td align="center">350000</td> <td align="center">Free Storage</td> </tr> <tr> <td align="center">105</td> <td align="center">Ola Cabs</td> <td align="center">900</td> <td align="center">Taxi Booking</td> </tr> </tbody> </table>			AppCode	AppName	Appusers	AppUse	101	Instagram	300000	Social Media	102	Google Play Music	150000	Free Music	103	Viber	2000	Free Music	104	Dropbox	350000	Free Storage	105	Ola Cabs	900	Taxi Booking	
AppCode	AppName	Appusers	AppUse																										
101	Instagram	300000	Social Media																										
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103	Viber	2000	Free Music																										
104	Dropbox	350000	Free Storage																										
105	Ola Cabs	900	Taxi Booking																										
		(i)	Keeping the above data in mind, suggest two different data types for the AppCode and AppUsers attributes (that are most suitable).	1																									
		(ii)	What is the degree and the cardinality of the table APPS ?	1																									
		(iii)	Which attribute can act as the Primary key for the table APPS ?	1																									
		(iv)	If a new attribute named AppIntroDate is added to the above table that will store the introduction Date, then suggest the most appropriate data type that should be used for this new attribute	1																									
		(v)	What will be the extension of this table APPS created in Access ?	1																									
	Ans	(i) Attribute Appcode Data type - AutoNumber Attribute AppUser Data type - Number <i>(½ mark for each correct data type)</i>																											
		(ii) Degree - 4 Cardinality- 5 <i>(½ mark for degree and ½ for cardinality)</i>																											
		(iii) AppCode can act as the Primary Key <i>(1 mark for naming the Primary Key)</i>																											

	(iv) Date/Time is most appropriate data type that should be used for this new attribute. (1 mark for naming the correct data type) (v) .accdb or .mdb or .mdbx is the extension of table APPS created in Access. (1 mark for naming any of the extension)	
(b)	Sushi is a trainer who wants to prepare her students for air hostess course using simulated aeroplane environment. Which of the following multimedia technology will help her achieve this: (1) Video Telephony (2) Virtual Reality (3) Video Conferencing	1
Ans.	Virtual Reality (1 mark for correct answer)	
(c)	Name any two types of tweening.	2
Ans.	(i) Motion Tweening (ii) Shape Tweening OR Text Tweening (1 mark each for naming any two tweening types)	
(d)	Enumerate any two applications of multimedia in education.	2
Ans.	<ul style="list-style-type: none"> > used for distance education > online study material > educational CD > multimedia encyclopedia (1 mark each for any two valid applications)	
Q2.	Answer the following questions based on Macromedia Flash:	
(a)	Observe the figure given below and answer the questions that follow: 	
(i)	Name the feature depicted in the above scenario.	1
(ii)	What does the arrow on the timeline marked by label A indicate?	1
(iii)	What does the number 12.0 in the area labelled as B signify in the above scenario?	1
(iv)	How many layers are there in the above scenario?	1
Ans.	(i) Onion Skinning (1 mark for naming the correct feature) (ii) Motion Tweening (1 mark for naming correct answer)	

		<p>(iii) It signifies frame rate per second OR It signifies the speed of the animation <i>(1 mark for the correct answer)</i></p> <p>(iv) One layer <i>(1 mark for mentioning correct layer count)</i></p>							
	(b)	Differentiate between the two types of sounds available in flash.	2						
	Ans.	<table border="1" data-bbox="256 546 1418 864"> <thead> <tr> <th data-bbox="256 546 839 613">Event Sounds</th> <th data-bbox="839 546 1418 613">Stream Sounds</th> </tr> </thead> <tbody> <tr> <td data-bbox="256 613 839 757">Must download completely before playing</td> <td data-bbox="839 613 1418 757">Begin playing as soon as enough data for first few frames has been downloaded</td> </tr> <tr> <td data-bbox="256 757 839 864">Play in its entirety independent of timeline</td> <td data-bbox="839 757 1418 864">Stops as soon as animation stops</td> </tr> </tbody> </table> <p><i>(2 marks for any one correct differentiation point between the two sound types)</i></p> <p>NOTE: 1 mark should be awarded if only one sound type has been explained</p>	Event Sounds	Stream Sounds	Must download completely before playing	Begin playing as soon as enough data for first few frames has been downloaded	Play in its entirety independent of timeline	Stops as soon as animation stops	
Event Sounds	Stream Sounds								
Must download completely before playing	Begin playing as soon as enough data for first few frames has been downloaded								
Play in its entirety independent of timeline	Stops as soon as animation stops								
	(c)	<p>Observe the image given below and do as directed:</p>  <ul style="list-style-type: none"> ● The graphic on the left hand side shows the position and size for frame 1. ● The graphic on the right hand side shows the position and size for frame 30. ● The ball graphic used in the animation is saved in the flash library. <p>Write the procedure and property settings for animating the above scenario. Assume that the colour changes from orange to green during the animation.</p>	4						
	Ans	<ul style="list-style-type: none"> ● Select frame 1 from the timeline and drag an instance of the ball graphic from the library on the stage ● Using arrow tool, select the image and place it on the left hand side ● Select frame 30 from the timeline and Select Insert -> Keyframe ● Using arrow tool select the image and position it on the right hand side of the stage at the desired location and then resize it ● Select any frame between 1 and 30 ● Select Create Motion tween ● Select the frame containing motion tween and select Add Motion Guide 							

	<p>layer.</p> <ul style="list-style-type: none"> Select pencil tool and draw a motion path <p>OR Any other equivalent method (½ mark for each correct step)</p>	
3	Answer the following questions based on HTML:	
(a)	<p>Fill in the blanks with structural tags to complete the basic structure of a HTML file.</p> <pre><HTML> <HEAD> <_____>..... <_____> </HEAD> <BODY> <_____> <_____></pre>	2
Ans	<pre><HTML> <HEAD> <TITLE>..... </TITLE> </HEAD> <BODY> </BODY> </HTML></pre> <p>(½ mark for filling each blank correctly)</p>	
(b)	<p>Write the HTML code to generate the web page in the format shown:</p>  <p>Consider the following points while writing the HTML code:</p> <ol style="list-style-type: none"> The title of the webpage is "Music of India". The page background colour is beige. The heading is in Gabriola Font and blue in colour. The lines are orange and green in colour and 40% and 70% wide respectively. The image shown in music.jpg. The font used for rest of the page is "Lucida Bright" and colour used is "Indigo". The bulleted list items Classical Music, Folk Music and Popular Music are hyperlinked to the pages Classical. html, folk.html and popular.html respectively. Use an email link to the email id "moi@csoi.com" in the last line. 	8

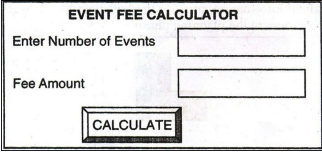
Ans	<pre> <HTML> <HEAD> <TITLE> Music of India</TITLE> </HEAD> <BODY BGCOLOR = "beige"> <CENTER> <H1> MUSIC OF INDIA</H1> <HR WIDTH= "40" COLOR= "orange"> <hr width= "70" color= "green"></center> <P> The music of India has a history spanning a million and developed over several eras. Music in India began as an integral parts of socio-religious life. It includes
 <UL TYPE= "disc"> Classical Music <OL TYPE = "A"> Hindustani Music Carnatic Music Folk Music Popular Music <OL TYPE = "A"> Film Music Indian Pop Music <TABLE ALIGN= "center" BORDER=4 CELLSPACING=5> <CAPTION> International Music Festival </CAPTION> <TR> <TH> Festival Name <TH> Venue <TH> Festival Month </TR> <TR> <TD> World Sufi Spirit Festival <TD> Nagpur <TD> February </TR> <TR> <TD> Rajasthan International Folk Festival <TD> Jodhpur <TD> October </TR> </pre>
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		<pre><TR> <TD> Harnball Festival <TD> Nagaland <TD> December </TR> </TABLE> <CENTER> To register for these music festival write to moi@csoi.com </CENTER> </BODY> </HTML></pre> <p><i>(1/2 mark for correct use of <HTML> and <BODY> tags)</i> <i>+ (1/2 mark for correct use of <TITLE> tag)</i> <i>+ (1/2 mark for body background colour)</i> <i>+ (1/2 mark for mentioning the correct font type and color)</i> <i>+ (1/2 mark for displaying the heading correctly in center)</i> <i>+ (1/2 mark for displaying the image correctly in center)</i> <i>+ (1/2 mark for displaying the horizontal lines)</i> <i>+ (1 1/2 mark for correctly creating the nested list (1/2 mark for each list))</i> <i>+ (1/2 mark for creating table with border) NOTE:Ignore Cellspacing</i> <i>+ (1/2 mark for giving table <CAPTION>)</i> <i>+ (1 mark for correctly creating the table using <TR> and <TD> tags)</i> <i>+ (1/2 mark for creating the links on list items)</i> <i>+ (1/2 mark for correctly creating the email link on the text)</i></p>	
Q4		Answer the following questions based on ASP:	
	(a)	<p>Page1.asp has this link: Go <la> How can page2.asp get the "color" parameter? (1) Response.QueryString("color") (2) Get("color") (3) Response.Parameter("color") (4) Request. QueryString("color")</p>	1
	Ans.	<p>4. Request.QueryString("color") <i>(1 mark for correct option)</i></p>	
	(b)	<p>How many Global.asa files can an ASP application have ? Which one of the following events is a standard Global.asa event? (1) Session_Id (2) Session_Start (3) Application_ OnStart</p>	2

		(4) Global.asa does not have any standard events	
	Ans.	Each ASP application can have only one Global.asa file 3. Application_OnStart (1 mark for mentioning the number of Global.asa file) + (1 mark for identifying the correct standard event)	
	(c)	Give the output of the following statements: (1) Response.write(9 MOD 3 + 6-5) (2) Response.write(LEN("ANDROID APPS")) (3) Response.write(MONTHNAME(3) & DAY(DATE))	3
	Ans.	(1) 1 (2) 12 (3) March16 (1 mark each for the three correct output)	
	(d)	Name the object used for the following: (1) To share information among all users of a given application. (2) To control information sent back to the browser from the server. (3) To obtain information about an error condition that has occurred in the script. (4) To store information about, or change settings for a user session.	4
	Ans.	(1) Application Object (2) Response Object (3) ASPError Object (4) Session Object (1 mark for each correct object name)	
Q5		Answer the following questions based on ASP:	
	(a)	What is a recordSet?	
	Ans	A recordSet Object is used to manage a collection of records (1 mark for the correct definition)	1
	(b)	Study the code given below to create a Content Rotator and answer the questions that follow : <code><HTML> <BODY> <CENTER><H1>Android Apps</H1></CENTER> <p> The free apps from the android community for varying utilities <% DIM myCont=Session.CreateObject ("MSWC.ContentRotator") %> <P ALIGN="CENTER"><%=myCont.ContentChoose ("apps.txt") %> </TITLE></code>	

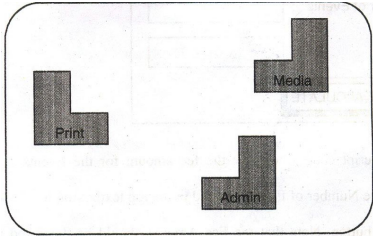
		<p></HTML></p> <table border="1"> <tr> <td data-bbox="252 203 368 304">(i)</td> <td data-bbox="368 203 1326 304">What is the significance of the delimiters < % % > in the above code?</td> <td data-bbox="1326 203 1417 304">1</td> </tr> <tr> <td data-bbox="252 304 368 371">(ii)</td> <td data-bbox="368 304 1326 371">Expand MSWC.</td> <td data-bbox="1326 304 1417 371">1</td> </tr> <tr> <td data-bbox="252 371 368 439">(iii)</td> <td data-bbox="368 371 1326 439">Name anyone ASP component apart from Content Rotator</td> <td data-bbox="1326 371 1417 439">1</td> </tr> <tr> <td data-bbox="252 439 368 506">(iv)</td> <td data-bbox="368 439 1326 506">Pointout four errors in the above code and correct them</td> <td data-bbox="1326 439 1417 506">2</td> </tr> </table>	(i)	What is the significance of the delimiters < % % > in the above code?	1	(ii)	Expand MSWC.	1	(iii)	Name anyone ASP component apart from Content Rotator	1	(iv)	Pointout four errors in the above code and correct them	2	
(i)	What is the significance of the delimiters < % % > in the above code?	1													
(ii)	Expand MSWC.	1													
(iii)	Name anyone ASP component apart from Content Rotator	1													
(iv)	Pointout four errors in the above code and correct them	2													
Ans		<p>(i) The delimiters <% %> signify that the script will be executed on the server side (1 mark each for the correct significance)</p> <p>(ii) Microsoft Windows Component (1 mark for the correct expansion)</p> <p>(iii) Ad Rotator (1 mark for the correct component name)</p> <p>(iv) Error Correction</p> <table border="1"> <thead> <tr> <th data-bbox="309 965 858 1032">Erroneous Statement</th> <th data-bbox="858 965 1417 1032">Corrected Statement</th> </tr> </thead> <tbody> <tr> <td data-bbox="309 1032 858 1099">DIM myCont</td> <td data-bbox="858 1032 1417 1099">SET myCont</td> </tr> <tr> <td data-bbox="309 1099 858 1167">myCont.ContentChoose("apps.txt")</td> <td data-bbox="858 1099 1417 1167">myCont.ChooseContent("apps.txt")</td> </tr> <tr> <td data-bbox="309 1167 858 1234"></TITLE></td> <td data-bbox="858 1167 1417 1234"></BODY></td> </tr> <tr> <td data-bbox="309 1234 858 1301">Session.CreateObject</td> <td data-bbox="858 1234 1417 1301">Server.CreateObject</td> </tr> </tbody> </table> <p>(1/2 mark each for the four error corrections)</p>	Erroneous Statement	Corrected Statement	DIM myCont	SET myCont	myCont.ContentChoose("apps.txt")	myCont.ChooseContent("apps.txt")	</TITLE>	</BODY>	Session.CreateObject	Server.CreateObject			
Erroneous Statement	Corrected Statement														
DIM myCont	SET myCont														
myCont.ContentChoose("apps.txt")	myCont.ChooseContent("apps.txt")														
</TITLE>	</BODY>														
Session.CreateObject	Server.CreateObject														
(c)		<p>Study the code given below:</p> <pre> <% Set FileObj =Server._____("Scripting.FileSystemObject") Set nfile=FileObj._____("lines.txt") DO WHILE NOT newsfile._____ S=nfile.Readline IF LEFT(S, 1) = "A" THEN Response.Write(S & "
") END IF LOOP nfile._____ %> </pre> <table border="1"> <tr> <td data-bbox="252 1895 336 2031">(i)</td> <td data-bbox="336 1895 1353 2031">Fill in the blanks to complete the above code fragment that reads the text in the file lines.txt and displays lines starting with the alphabet "A" on the web page.</td> <td data-bbox="1353 1895 1417 2031">2</td> </tr> </table>	(i)	Fill in the blanks to complete the above code fragment that reads the text in the file lines.txt and displays lines starting with the alphabet "A" on the web page.	2										
(i)	Fill in the blanks to complete the above code fragment that reads the text in the file lines.txt and displays lines starting with the alphabet "A" on the web page.	2													

		(ii) Name any two alternate methods of reading a text file apart from ReadLine.	2
	Ans.	<p>i)</p> <pre><% Set FileObj =Server.CreateObject("Scripting.FileSystemObject") Set nfile=FileObj.OpenTextFile("lines.txt") DO WHILE NOT nfile.AtEndOfStream S=nfile.Readline IF LEFT(S, 1) = "A" THEN Response.Write(S & "
") END IF LOOP nfile.Close %></pre> <p><i>(½ mark each for the four blanks)</i></p> <p>NOTE: Full 2 Marks to be awarded for mentioning the ambiguity in nfile and newsfile</p> <p>ii) ReadAll and Read(1) <i>(1 mark each for the two correct method names)</i></p>	
Q6		Answer the following questions based on VBScript:	
	(a)	(a) Name the interface element for which the given event is appropriate: (i) OnMouseOver (ii) OnClick	1
	Ans.	OnMouseOver - Image OnClick - Button <i>(½ mark each for naming the two correct interface elements)</i>	
	(b)	<p>Study the code given below and answer the questions that follow:</p> <pre><HTML> <BODY> <SCRIPT LANGUAGE="VBScript"> SUB Change (X, Y) X=X + X Y=Y * Y DOCUMENT.WRITE{X & Y & "
"} END SUB P=2 Q=3 DOCUMENT.WRITE (P & Q & "
") Change P,Q Change Q,P </SCRIPT> </BODY> </HTML></pre>	

		<table border="1"> <tbody> <tr> <td>(i)</td> <td>How many times will the function change get executed?</td> <td>1</td> </tr> <tr> <td>(ii)</td> <td>What is the role of the operator and in the statement DOCUMENT.WRITE(X & Y & "
") ?</td> <td>1</td> </tr> <tr> <td>(iii)</td> <td>Give the output of the above code</td> <td>3</td> </tr> </tbody> </table>	(i)	How many times will the function change get executed?	1	(ii)	What is the role of the operator and in the statement DOCUMENT.WRITE(X & Y & " ") ?	1	(iii)	Give the output of the above code	3	
(i)	How many times will the function change get executed?	1										
(ii)	What is the role of the operator and in the statement DOCUMENT.WRITE(X & Y & " ") ?	1										
(iii)	Give the output of the above code	3										
Ans.	<p>(i) The function change gets executed 2 times <i>(1 mark for the correct number)</i></p> <p>(ii) To join the values together as a string <i>(1 mark for the correct usage)</i></p> <p>(iii) 23 49 64 <i>(1 mark each for the three lines of output)</i></p>											
(c)	<p>Write the HTML code to generate the following form:</p>  <p>Write the VB Script code to display the fee amount for the Events as ₹ 600 multiplied by the Number of Events entered in the top textbox on the click of the CALCULATE button. Note that the Fee Amount should be displayed as 0 in case the user does not enter a number in the top textbox. The user inputs the Number of Events in the text box on the top and the fee amount should be displayed in the bottom text box.</p>	4										
Ans	<pre> <HTML> <HEAD><TITLE>Fee Calculator</TITLE> <SCRIPT LANGUAGE="VBScript"> SUB B1_OnClick IF ISNUMERIC(F1.T1.Value) THEN F1.T2.Value = F1.T1.Value * 600 ELSE F1.T2.Value = 0 END IF END SUB </SCRIPT> </HEAD> <BODY> <H1 ALIGN="center">EVENT FEE CALCULATOR</H1> <FORM NAME="F1"> Enter Number of Events <INPUT TYPE="TEXT" NAME="T1"> <P> </pre>											

		<pre> Fee Amount <INPUT TYPE="TEXT" NAME="T2"> <P> <CENTER> <INPUT TYPE="BUTTON" NAME="B1" VALUE="CALCULATE"> </CENTER> </FORM> </BODY> </HTML> </pre> <p>(½ mark for correct <FORM> tag) +(½ mark for creating text boxes using <INPUT> tags) + (½ mark for creating button using <INPUT> tag) + (½ mark for the correct <SCRIPT> tag) + (½ mark for associating subroutine with the button element) + (1 mark for correct conditional statement) + (½ mark for correctly displaying the output in the second text box)</p>										
Q7.	(a)	Which of the following is not open source software? (i) Firefox web browser (ii) MySQL (iii) Visual Basic	1									
	Ans:	(iii) Visual Basic (1 mark for correct option)										
	(b)	Name the protocol to be used in the following situations: (i) For sending and receiving e-mails (ii) For transferring computer files over a network	2									
	Ans:	(i) SMTP (ii) FTP (1 mark each for the correct protocol name)										
	(c)	Differentiate between CDMA and GSM.	2									
	Ans	<table border="1"> <thead> <tr> <th></th> <th>CDMA</th> <th>GSM</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Code Division Multiple Access</td> <td>Global System for Mobile Communication</td> </tr> <tr> <td>2.</td> <td>Can be used only within a specified area</td> <td>Can be used for International Roaming</td> </tr> </tbody> </table> <p>(1 mark each for any one correct differentiation point of both terms) Note: 1 mark to be awarded in case the student mentions only the full forms of both terms</p>		CDMA	GSM	1.	Code Division Multiple Access	Global System for Mobile Communication	2.	Can be used only within a specified area	Can be used for International Roaming	
	CDMA	GSM										
1.	Code Division Multiple Access	Global System for Mobile Communication										
2.	Can be used only within a specified area	Can be used for International Roaming										
	(d)	EduFuturz Solutions is in the process of setting up their new campus in Gurgaon.										

As a network expert, you are expected to help the institution by studying the physical locations of various blocks and the number of computers to be installed. On the basis of the given information, provide the best possible answers for the queries (i) to (v) to help them in the planning phase.



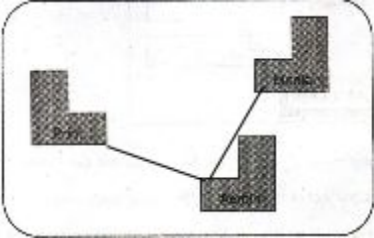
Block to Block distances (in mtrs.)

Place From	Place To	Distance
Admin Block	Print Block	60m
Media Block	Admin Block	30m
Media Block	Print Block	90m

Expected number of computers in each block:

Block	No. of Computers
Admin Block	60
Media Block	30
Print Block	40

(i)	Draw the most appropriate cable layout to connect all three blocks for efficient communication.	1
(ii)	Name the topology formed by the above cable layout.	1
(iii)	Name the block that is most suitable to house the server for this campus with a suitable reason.	1
(iv)	Which type of network, out of following, is formed by connecting the computers of these three blocks? <ul style="list-style-type: none"> ● PAN ● LAN ● MAN 	1
(v)	Which wireless channel out of the following should be chosen by the Company Management to connect to their campus in another country? <ul style="list-style-type: none"> ● Infrared 	1

		<ul style="list-style-type: none"> • Microwave • Satellite 	
	Ans		
	(i)	 <p><i>(1 mark for correct cable layout)</i></p>	
	(ii)	<p>Star topolgy <i>(1 mark for correct topology name)</i></p>	
	(iii)	<p>Admin Block because it has maximum number of computers <i>(½ mark for correct block name and ½ mark for justification)</i></p>	
	(iv)	<p>LAN <i>(1 mark for correct network type)</i></p>	
	(v)	<p>Satellite <i>(1 mark for correct wireless channel name)</i></p>	