EDUMATE



Computer Applications (Humanities)



Government of Kerala

DEPARTMENT OF EDUCATION

Prepared by:

State Council of Educational Research & Training (SCERT) Poojappura, Thiruvananthapuram -12, Kerala. E-mail:scertkerala@gmail.com

Type setting by: SCERT Computer Lab.

(C)

Government of Kerala Education Department 2017

Foreword

Dear Teacher,

Effective learning can be ensured only through proper assessment. Assessment helps both the learners and teachers to analyse and evaluate whether the objectives of the learning process has been met. Scientific methods of evaluation have been developed to assess the thinking skills of the learner. The learner has to be assessed based on the different thinking skills, so that his evaluation is complete in all respects. It should also be noted that evaluation is done without causing difficulty to the learner. He should be given enough practice in advance. This book is intended to familiarize the learners and the teachers with the new evaluation methods for the revised text book.

The main objective of this book is to equip the learners to face the public examinations with confidence. I hope this book caters to the requirements of both the learners and teachers.

Your comments and suggestions are welcome and will assist us in improving the contents of this book.

With regards,

Dr. J. Prasad Director

Contents

Units

1	Introduction to publishing	5
2	Introduction to word processors	9
3	Creating Professional documents	14
4	Web Technology	19
5	Web Designing Using HTML	30
6	Cascading Style Sheet	40
7	Web Hosting	47
8	Data Base Management System	55
9	Structured Query Language	64
10	Trends and issues in ICT	71



INTRODUCTION TO PUBLISHING

Learning Outcomes

- 1.1, Explains the process of publishing.
- Define publishing? O. 1



Scoring Indicators

Publishing comprises of creation, compilation and mass reproduction of graphic and text images there by making information available to public

Score: 2 Time: 3 mts

Learning Outcomes

- 1.2, Identifies the different types of publishing.
- Name the stage in which the visual impact of printed presentation Q. 2 is decided.



Scoring Indicators

Pre-press Score: 1 Time: 2 mts

Learning Outcomes

- 1.3, Identifies the stages in publishing.
- Q. 3 Pick the odd one out.
 - i) Folding ii) Assembling iii) Designing iv) Binding



Scoring Indicators

Designing Score: 1 Time: 2 mts

- 1.4, Uses the elements of design in page design.
- Q.4 What are the different elements of design that are to be considered while publishing?



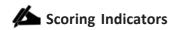
Line, Shape, Space, Color, Typography Name only (½ score each) Explanation (2½ Score)

Score: 5

Time : 10 mts

Learning Outcomes

- 1.4, Uses the elements of design in page design.
- Q. 5 Which is the area in a document where there is no text or graphics?



Space Score: 1

Time: 2 mts

Learning Outcomes

- 1.4, Uses the elements of design in page design.
- Q. 6 The style of font 'without feet' is _____.

Scoring Indicators

Sans serif Score: 1

Time: 2 mts

Learning Outcomes

- 1.4, Uses the elements of design in page design.
- Q.7 What are the two font classifications? Briefly explain.

Scoring Indicators

Sans serif and Serif
Explanation

Time: 3 mts

Score: 1

Score: 1

- 1.5, Applies principles of design while designing a page.
- Explain the different principles of design in publishing.

Scoring Indicators

Names only 1/2 Score each Explanation 2½ Score

Score: 5 *Time* : 10 mts

Learning Outcomes

- 1.6, Identifies the need for creating a proof.
- Q.9 Which is the representation of how the finished piece will appear when it is printed or which is the terminology used to specify the form of a document that shows how it will appear when it is printed?



Scoring Indicators

Proof Score: 1 Time: 2 mts

Learning Outcomes

- 1.7, Explains the need of plates for printing.
- Q. 10 Define Color Separation.



A Scoring Indicators

It is the process in color printing, by which art work is separated into individual color compo-

Score: 2 Time: 4 mts

Learning Outcomes

- 1.8, Explains the different types of printing processes.
- Q. 11 There are different types of printing processes in publishing. Briefly explain the processes.



Scoring Indicators

Lithography, Digital, Gravure, Flexography, Screen Printing (½ Sore each) Explanation 2½ Score

Score: 5

Time : 10 mts

- 1.8, Explains the different types of printing processes.
- Q. 12 Match the following:

	A	В		
a)	Lithographic Printing	i)	Flexible package printing	
b)	Digital Printing	ii)	Uses woven mesh	
c)	Gravure Printing	iii)	Offset Printing	
d)	Screen Printing	iv)	On-demand printing	



Scoring Indicators

a-iii, b-iv, c-i, d-ii (½ score each)

Score: 2

Time: 5 mts

Learning Outcomes

- 1.10, Identifies the different types of electronic publishing.
- Q. 13 Electronic publishing is of two types. What are they? Explain.



Scoring Indicators

Web based publishing and Digital distribution (1/2 each) Explanation (1+1)

> Score: 3 Time: 6 mts

Learning Outcomes

- 1.10, Identifies the different types of electronic publishing.
- Q.14 People usually prefer e-book reader for reading e-books instead of mobile/tablet. What may be the reason behind it?



Scoring Indicators

Correct explanation-full score

Score: 3



INTRODUCTION TO WORD PROCESSORS

Learning Outcomes

- 2.1, Recognises the use of word processing software and its features.
- O. 1 In almost all the text books we can see some common text in top of all pages. What is that?
 - a) Footer
- b) Title
- c) Header
- d) TOC



Header Score: 1

Time: 2 mts

Learning Outcomes

- 2.1, Recognises the use of word processing software and its features.
- Q. 2 Which is the program integration technology used to share information between programs through objects?



Time: 2 mts

Score: 1

Learning Outcomes

OLE

- 2.1, Recognises the use of word processing software and its features.
- Q. 3 The predefined document format available with Libre Office writer is _____.



Scoring Indicators

Templates Score: 1 Time: 2 mts

Learning Outcomes

- 2.2, Differentiates various components of the IDE of the word processor.
- Which of the following contains the commands in the form of various but-Q. 4 tons?
 - a) Menu bar
- b) Tool bar
- c) Title bar
- d) Scrollbar



Scoring Indicators

Tool bar

Score: 1 Time: 2 mts

Learning Outcomes

- 2.2, Differentiates various components of the IDE of the word processor.
- When we place mouse pointer on a button, a short text will appear as its description. What is its name?



Scoring Indicators

Tooltip Text

Score: 1

Time: 2 mts

Learning Outcomes

- 2.3, Creates documents using word processor.
- Q. 6 What is the shortcut key for Fle->SaveAs in Writer?



Scoring Indicators

Ctrl+shift+S

Score: 1

Time: 2 mts

Learning Outcomes

- 2.4, Copies or moves text from one place to another in a document.
- Q. 7 What is navigation? Give examples for any two navigation keys.



A Scoring Indicators

Definition 1 Score Example $(\frac{1}{2} + \frac{1}{2})$

Score: 2

Time: 4 mts

Learning Outcomes

- 2.4, Copies or moves text from one place to another in a document.
- What is the meaning of the following short-cuts in Writer?

Ctrl+Y, Ctrl+Z



Scoring Indicators

Undo and Redo $(\frac{1}{2} + \frac{1}{2})$

Score: 1

Time: 2 mts

Learning Outcomes

- 2.4, Copies or moves text from one place to another in a document.
- Compare Cut paste and copy Paste in word processor?





Scoring Indicators

Three comparisons (3×1)

Score: 3

Time: 4 mts

Learning Outcomes

- 2.4, Copies or moves text from one place to another in a document.
- Q. 10 Name the facility used in writer to cancel the most recent action.



Scoring Indicators

Undo

Score: 1 Time: 2 mts

Learning Outcomes

- 2.5, Searches a particular text in the document and replaces it with another text.
- Q. 11 What is the use of the following shortcut keys in Writer?

Ctrl+H and Ctrl+F



Scoring Indicators

Find (1 Score) Find and replace (1 Score)

Score: 2

Time: 4 mts

Learning Outcomes

- 2.6, Changes the appearance and style of text by applying the features like bold, italic, underline, font face, font size etc.
- Q. 12 Which tab in the Format dialog box facilitates super scripting and subscripting?



Scoring Indicators

Position

Score: 1

Time: 2 mts

Learning Outcomes

- 2.6, Changes the appearance and style of text by applying the features like bold, italic, underline, font face, font size etc.
- Q. 13 Define character Formatting.



Scoring Indicators

It decides how individual character in the document should appear (type of font color, size etc.)

Score: 2

- 2.6, Changes the appearance and style of text by applying the features like bold, italic, underline, font face, font size etc.
- Q. 14 We can copy the character format applied to a selected text to another place in the document. Give the name of button in the standard tool bar. Write the steps to perform this.



Scoring Indicators

Format Paintbrush (1 Score) Steps (2 Score)

> Score: 3 Time: 4 mts

Learning Outcomes

- 2.7, Configures a paragraph of text by changing alignment, indent, line space etc.
- Q. 15 The term refers to the distance between text boundaries and page margin is known as __



Scoring Indicators

indent Score: 1

Time: 2 mts

Learning Outcomes

- 2.7, Configures a paragraph of text by changing alignment, indent, line space etc.
- Q. 16 Name the four classifications of indentation.



Scoring Indicators

Positive, Negative, First line and Hanging Indent (4 x ½)

Score: 2

Time: 5 mts

Learning Outcomes

- 2.7, Configures a paragraph of text by changing alignment, indent, line space etc.
- Q. 17 In your text book the first letter in the first paragraph is big in size and it takes the height of two or more lines. Name the feature.



Scoring Indicators

Drop Caps feature

Score: 1

- 2.8, Creates lists using bullets or numbers.
- Q. 18 Suppose your teacher asked you to prepare a questionnaire that contains 100 questions. Which facility in the word processor helps you to give the question number automatically. Write the steps to perform this in writer.



Bullets and numbering (1 Score) Steps (2 Score)

Time: 5 mts

Score: 3

Learning Outcomes

- 2.9, Alters the page size, orientation and page margins.
- Q. 19 Name two types of Page orientation.



A Scoring Indicators

Portrait and Landscape ($\frac{1}{2} + \frac{1}{2}$)

Score: 1

Time: 2 mts

Learning Outcomes

- 2.10, Inserts header and footer in pages.
- Q. 20 The shortcut key for printing a document is _____.



Scoring Indicators

Ctrl+P Score: 1



CREATING PROFESSIONAL DOCUMENTS

Learning Outcomes

- 3.1, Uses tables for presenting matter in tabular form for its manipulation.
- Which is the tool used to draw free hand figure or shape?



Scoring Indicators

Freeform Tool

Score: 1 Time: 2 mts

Learning Outcomes

- 3.1, Uses tables for presenting matter in tabular form for its manipulation.
- Which is the tool that switches the 3D effects ON and OFF in Writer?



Scoring Indicators

Extrusion on/off Score: 1 Time: 2 mts

Learning Outcomes

- 3.1, Uses tables for presenting matter in tabular form for its manipulation.
- How will you insert the following in a document? Write the steps.

®£



A Scoring Indicators

Insert - > Special character

Score: 2

Time: 3 mts

Learning Outcomes

- 3.1, Uses tables for presenting matter in tabular form for its manipulation.
- What is the shortcut to forcefully break the current page?



A Scoring Indicators

Ctrl+Enter

Score: 1

- 3.1
- Q. 5 Which is the facility to define text or graphics in the background of a writer document?



Watermark Score: 1

Time: 2 mts

Learning Outcomes

- 3.1
- Q. 6 Write down the steps to give watermark?



Correct Steps Score: 2

Time: 3 mts

Learning Outcomes

- 3.2
- Q. 7 Write the steps to combine more than one cell of a table in Writer.



Correct steps - full Score

Score: 2

Time: 3 mts

Learning Outcomes

- 3.2
- Q. 8 Write the steps to delete rows/columns of a table in Writer.



Correct steps - full Score

Score: 2

Time: 3 mts

Learning Outcomes

- 3.2
- Q. 9 What is the use of auto format button in Insert Table dialog box in Writer?



Used to give set of predefined styles

Score: 2

Time: 3 mts

- 3.2, Inserts graphics, drawings, drop caps, symbols and water-marks in the documents.
- Q. 10 The shortcut key for inserting a table in Libre Office Writer.
 - a) Ctrl+F2 b) Ctrl+P c) Ctrl+F12 d) Ctrl+S



Scoring Indicators

Ctrl+F12 Score: 1 Time: 2 mts

Learning Outcomes

- 3.2, Inserts graphics, drawings, drop caps, symbols and water-marks in the documents.
- Q. 11 Name the three types of graphics in Writer that can be inserted into a document.



Scoring Indicators

Image files such as photos.

Diagrams created using tools available in Drawing tool bar.

Charts created using chart facility.

Score: 1 score each Time: 5 mts

Learning Outcomes

- 3.3, Converts the text data directly into a table.
- Q. 12 Consider the following data and convert it into table in Writer. Write the steps to perform the operation?

Name, Roll, Mark

Ram, 12, 30

Arjun, 13, 45



Score: 3 Correct Steps

Time: 5 mts

Learning Outcomes

- 3.4, Applies multi column style to the document matter.
- Q. 13 In Writer document, sometimes we can see the presence of red wavy underline below some words. What is the reason behind it? How will you remove the wavy underline? Write down the steps?



A Scoring Indicators

Spelling or Grammar mistake Score: 1 Score: 2 Correct menu

- 3.4, Applies multi column style to the document matter.
- Q. 14 What is meant by autocorrect feature in Writer?



Correct answer (Full Score)

Score: 2

Time: 3 mts

Learning Outcomes

- 3.5, Removes spelling and grammar mistakes in the document.
- Q. 15 Write the steps to type the following in Writer?

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



A Scoring Indicators

Insert-> Object-> Formula

Score: 2

Time: 3 mts

Learning Outcomes

- 3.6, Generates Table of Contents for the documents.
- Q. 16 Explain the steps to split single column matter into multi column in Writer?



Scoring Indicators

Select the document area

Score: 1

Choose the menu Format Columns

Score: 1

Time: 3 mts

Learning Outcomes

- 3.7, Defines index entries in the text document.
- Q. 17 What is TOC in Writer? Write the steps to create TOC entries?



Scoring Indicators

Table Of Contents Correct Steps

Score: 1 Score: 3

- 3.8, Designs templates for documents.
- Q. 18 Writer provides the facility to create our own template. What are the steps to perform this?



Correct steps Full score
Menu only Score : 1

Time : 5 mts

Learning Outcomes

- 3.8, Designs templates for documents.
- Q. 20 What are the advantages of using Templates?



We need to enter only data

Score: 1

The formatting remains the same as that of template file

Score: 1

Time: 2 mts

Learning Outcomes

- 3.9, Uses mail merge feature to send letters.
- Q. 21 Suppose your class teacher asked you to prepare an invitation letter for the PTA meeting to be held at your class. The same matter should be sent to all the parents with different addresses. Name the feature in Writer to perform the above said task. Write down the steps to perform this.



Mail Merge Score : 1
Correct steps 4 Score (½ score for each step)

Time : 10 mts



Learn	ning Outcomes	
	• 4.1, Explains the need of secure communications.	
Q. 1	Communication on web can be classified into and _	·•
∕ S	Scoring Indicators	
	Client to Server and Server to Server	Score: 1 Time: 2 mts
Learn	ning Outcomes	
•	• 4.1, Explains the need of secure communications.	
Q. 2	The protocol which is responsible for splitting the data into seets is	maller pack-
∕ S	Scoring Indicators	
	TCP	Score : 1 <i>Time : 1 mts</i>
Learn	ning Outcomes	
•	• 4.1, Explains the need of secure communications.	
Q. 3	The protocol which is responsible for the routing of data pack the correct destination is	kets through
∕ S	Scoring Indicators	
	IP (Internet Protocol)	Score: 1 Time: 4 mts
Learn	ning Outcomes	
•	• 4.1, Explains the need of secure communications.	
Q. 4	TCP/IP stands for	
∕ S	Scoring Indicators	
	Transmission Control Protocol/Internet Protocol	

Score : 1 *Time : 1 mt*

- 4.1, Explains the need of secure communications.
- Identify the protocol responsible for e-mail communication.
 - a. DNS
- b. HTTP
- c. TCP/IP
- d. SMTP



Scoring Indicators

d. SMTP

Score: 1 Time: 1 mt

Learning Outcomes

- 4.1, Explains the need of secure communications.
- Briefly explain the two types of communication on the web.



A Scoring Indicators

Brief explanation about Client to Server and Server to Server communications.

Time: 4 mts

Score: 2

Learning Outcomes

- 4.1, Explains the need of secure communications.
- When a client send request to a server, the server must know which service is demanded by the client.
 - a. How does the server identify the type of service requested?
 - b. Write the name of any one of the services in the web server.



Scoring Indicators

- a. Port number
- b. Any service like FTP, SMTP, HTTP etc.

Score: 2 Time: 4 mts

Learning Outcomes

- 4.1, Explains the need of secure communications.
- Following are steps for searching the IP address of a domain name by a browser. Rearrange them in proper order.
 - a. Look in the local memory of ISP
 - b. Look in the DNS servers starting from the root server
 - c. Look in the local memory of browser
 - d. Look in the local memory of Operating System



Scoring Indicators

Correct order is c, d, a, b

Score: 2

- 4.1.2, Describes web server and web hosting.
- In server to server communication, authentication is done with help of
 - a. HTTP
- b. Digital certificate
- c. Client
- d. DNS



Scoring Indicators

b. Digital Certificate

Score: 1

Time: 1 mt

Learning Outcomes

- 4.1.2, Describes web server and web hosting.
- Q. 10 Which server acts between merchant server and bank server for transferring data in encrypted format?



Scoring Indicators

Payment Gateway

Score: 1

Time: 1 mt

Learning Outcomes

- 4.2.1, Explains the need of secure communications.
- Q. 11 Identify the name of a place where servers and networking systems are placed with high security.
 - a. Head office
- b. DNS
- c. Data centre

d. IIS



Scoring Indicators

c. Data centre

Score: 1

Time: 2 mts

Learning Outcomes

- 4.2.2, Describes web server and web hosting.
- Q. 12 Identify the port number which request for the service of sending e-mail communication.
 - a. 22
- b. 25
- c. 53
- d. 80



A Scoring Indicators

b. 25

Score: 1

Time: 1 mt

- 4.2.3, Differentiates static and dynamic web pages.
- Q. 13 The IP address corresponding to a domain name is present in _____ server.



A Scoring Indicators

DNS

Score: 1

Time: 1 mt

Learning Outcomes

- 4.4, Identifies the difference between programming languages and scripts.
- Q. 14 Compare static and dynamic webpages.



Scoring Indicators

Correct comparison of static and dynamic pages (minimum two value points about each type).

Score: 2

Time: 4 mts

Learning Outcomes

- 4.5, Explains different types of scripting languages.
- Q. 15 Programs embedded in HTML documents are termed as _____.



A Scoring Indicators

Scripts

Score: 1

Time: 1 mt

Learning Outcomes

- 4.5.1, Explains the need of secure communications.
- Q. 16 How client side scripting differs from server side scripting?



Scoring Indicators

Correct comparison of client side and server side scripting (minimum two value points about each type).

Score: 2

- 4.5.1, Explains the need of secure communications.
- Q. 17 Running of _____ scripts can be blocked by the user.
 - a. Client side

b. Server side

c. Both client side and server side

d. None of these



Scoring Indicators

Client side scripts

Score: 1 Time: 1 mt

Learning Outcomes

- 4.5.2, Describes web server and web hosting.
- Q. 18 A platform independent server side scripting language is _____.



Scoring Indicators

PHP

Score: 1 Time: 1 mt

Learning Outcomes

- 4.5.2, Describes web server and web hosting.
- Q. 19 PHP is a popular scripting language.
 - a. Write whether it is client side or server side.
 - b. Write a brief note on PHP.

Scoring Indicators

- a. Server side 1 Score
- b. Brief description about PHP 2 Scores

Score: 3 Time: 4 mts

Learning Outcomes

- 4.5.2, Describes web server and web hosting.
- Q. 20 Write brief notes on any client side scripting language and a server side scripting language.



Scoring Indicators

Correct explanation about any two from JavaScript, VBScript, PHP, JSP or ASP – 1 ½ score for each.

Score: 3

- 4.6, Compares different types of scripting languages.
- Q. 21 Which among the following tools is used for easy formatting and defining style of a document written in HTML?
 - a. Ajax
- b. CSS
- c. JSP

d. JavaScript



Scoring Indicators

CSS

Score: 1 Time: 1 mt

Learning Outcomes

- 4.7.3, Differentiates static and dynamic web pages.
- Q. 22 Categorise the following tags in HTML and write the criterian for the categorisation.



Scoring Indicators

Correct classification based on the concept of empty tag and container tag.

Score: 2

Time: 4 mts

Learning Outcomes

- 4.7.3, Differentiates static and dynamic web pages.
- Q. 23 Differentiate empty tags and container tag with example.



A Scoring Indicators

Correct comparison of static and dynamic pages (minimum two value points about each type).

Score: 2

Time: 4 mts

Learning Outcomes

- 4.9, Classifies HTML tags.
- Q. 24 Pick the Odd one from the following list and give reason.

(IMG, FONT, BR, ALIGN, PRE)



Scoring Indicators

ALIGN which is an attribute, all others are tags.

Score: 1

Time: 1 mt

- 4.9, Classifies HTML tags.
- Q. 25 Explain the use of <BODY> tag and list any four of its attributes.

A Scoring Indicators

Correct usage of <BODY> tag and its four attributes.

Score: 3

Time: 4 mts

Learning Outcomes

- 4.9.4, 4.10.6, Identifies the difference between programming languages and scripts, Compares different types of scripting languages.
- O. 26 Write True or False
 - Text is an attribute of <BODY> tag to insert a text matter in the web page.
 - b. tag functions similar to <I> tag.



- a. False
- b. True

Score: 1 Time: 1 mt

Learning Outcomes

- 4.9.4, Identifies the difference between programming languages and scripts.
- Q. 27 Choose the correct HTML statement to display an image with file name "kerala.jpg" as the background of the web page.

 - a. c. <BODY bgcolor="kerala.jpg">

 - b. <BODY src="kerala.jpg"> d. <BODY background="kerala.jpg">



Scoring Indicators

d. <BODY background="kerala.jpg">

Score: 1

Time: 2 mts

Learning Outcomes

- 4.10, Identifies the formatting tags and attributes.
- Q. 28 Two of the following HTML tags have same attribute 'Align'. Identify them. (, <MARQUEE>, , <P>, <BODY>)



A Scoring Indicators

 and <P>

Score: 1 Time: 1 mt

Learning Outcomes

- 4.10.4, Identifies the difference between programming languages and scripts.
- Q. 29 Identify the correct HTML statement to draw a horizontal line with half the width of the screen.
 - a. <HR width="50%" size="3">
 - c. <HR size="50%" width="3">

 - b. <HR length="50%" size="3"> d. <HR width="50%" length="3">



Scoring Indicators

a. <HR width="50%" size="3">

Score: 1 Time: 2 mts

Learning Outcomes

- 4.10.6, Compares different types of scripting languages.
- Q. 30 Write HTML statement for displaying the following text items:
 - a. A_2B^3
 - b. A>B



Scoring Indicators

- a. A₂B³
- b. A > B

Score: 2

Time: 4 mts

Learning Outcomes

- 4.10.7, Identifies the basic HTML tags.
- Q. 31 A student wants to display a poem in a web page just like as he entered in the text editor. Which tag in HTML will help him?



Scoring Indicators

<PRE> tag

Score: 1

- 4.9 & 4.10, Classifies HTML tags, Identifies the formatting tags and attributes.
- Q. 32 Two HTML tags are given. They are <BODY> and . Identify and write the attribute of each from the following list.

(Size, Text, Link, Bgcolor, Color)



Scoring Indicators

<BODY> - Text, Link, Bgcolor - Size, Color

Score: 2

Time: 3 mts

Learning Outcomes

- 4.9 & 4.10, Classifies HTML tags, Identifies the formatting tags and attributes.
- Q. 33 Write the use of *Border* and *Alt* attribute of tag.



Scoring Indicators

Correct usage of the attributes Border (for giving border to the image) and Alt (for displaying an alternate text).

Score: 2

Time: 4 mts

Learning Outcomes

- 4.10.6, Compares different types of scripting languages.
- Q. 34 Write and explain any four text formatting tags in HTML.



A Scoring Indicators

Any four text formatting tags with proper explanation.

Score: 2

Time: 4 mts

Learning Outcomes

- 4.10, Identifies the formatting tags and attributes.
- Q. 35 Match the following.

| A | В | С | |
|---------------------|-------------------|---------|--|
| <h2></h2> | Inserting picture | Bgcolor | |
| <marquee></marquee> | Heading | Src | |
| | Scrolling text | Align | |



Scoring Indicators

Correct match as given below (1 score for each correct match).

<H2> - Heading – Align

<MARQUEE> - Scrolling text – Bgcolor

 - Inserting picture – Src

Score: 3 Time: 4 mts

Learning Outcomes

- 4.10.6, 4.10.7 & 4.10.8, Compares different types of scripting languages, Identifies the basic HTML tags, Lists fundamental HTML tags and attributes.
- Q. 36 Briefly explain the use of tags <Q>, <PRE> and <ADDRESS> tags.



Scoring Indicators

Correct explanation about all three tags.

Score: 3

Time: 9 mts

Learning Outcomes

- 4.10.9, Classifies HTML tags.
- Q. 37 A student developed a web page about India. He wanted to display a scrolling text moving from right side to left side with a background colour blue. The text is "I Love My Country".
 - a. Identify the tag needed for it.
 - b. Write the HTML statement to do the task.



Scoring Indicators

- a. <MARQUEE> 1 Score
- b. <MARQUEE direction="left" bgcolor="blue" > I Love My country </<MARQUEE> -2 Scores

Score: 3

Time: 6 mts

Learning Outcomes

- 4.10.11, Identifies the similarities and differences among formatting tags.
- Q. 38 A student created a webpage about his school. The school name is displayed in the page. He wanted to change the style, colour and size of the school name. Identify the most appropriate tag in HTML needed for that.



Scoring Indicators

 tag - 1 score

Score: 1

- 4.9, Classifies HTML tags.
- Q. 39 Write a HTML code to develop a web page about Kerala state as shown below:

KERALA STATE

God's Own Country Capital: Thiruvananthapuram

The specifications for the page are:

- The main heading must be of bigger in size, centralised and bold. a.
- b. Sub headings must be lesser size than main heading and in italics.
- There should be a picture at the center of the page with file name C. "tree.jpg".
- The background colour of the page must me blue. d.



Scoring Indicators

Correct usage basic tags (HEAD, TITLE, BODY etc.) – 2 Scores Correct usage of special tags(FONT or H1, IMG, H2, CENTER, B etc.) – 3 Scores

Score: 5

Time : 10 mts

Learning Outcomes

- 4.9 & 4.10, Classifies HTML tags, Identifies the formatting tags and attributes.
- Q. 40 Write HTML code for developing a web page that display a message against smoking with following features:
 - The background colour must be green a.
 - b. There must be centralised heading AVOID SMOKING with bigger size and bold.
 - There must be a sentence about problem with smoking like "Smoking C. is Injurious to Health". This must be in quotes, italics with colour red.



Scoring Indicators

Correct usage basic tags (HEAD, TITLE, BODY etc.) – 2 Scores Correct usage of special tags (FONT or H1, H2, CENTER, B, I, Q etc.) – 3 Scores

Score: 5

Time : 10 mts



WEB DESIGNING USING HTML

Learning Outcomes

- 5.1, Distinguishes various types of lists available in HTML.
- Mr. Suresh wants to prepare a list of students with register number. But he wants to start numbering from 5? How can it be done using HTML?

A Scoring Indicators

Ordered list <OL Start= "5"> score 2 Tag - 1 score, start - 1 score

Time: 4 mts

Score: 2

Learning Outcomes

- 5.1, Distinguishes various types of lists available in HTML.
- Create an HTML page as shown below using lists. Q. 2

The recipe for preparation

- 1. The ingredients
 - 100g flour
 - 10g sugar
 - 1 cup water
 - 2 egg
 - Salt and pepper
- 2. *The procedure*
 - A. Mix dry ingredients thoroughly
 - B. Pour in wet ingradients
 - C. Mix for 10 mts
 - D. Bake for 1 hr at 100 degree C temperature



Scoring Indicators

Correct HTML code use of ordered list and unordered list

Score: 5

Time : 10 mts

- 5.1, Distinguishes various types of lists available in HTML.
- Create an HTML code to create following definition list.

Some of the important tags used in HTML are given below:

HTML

This tag marks a text as HTML document.

HEAD

This tag defines the Heading part of the HTML document **BODY**

This tag defines the body section of the HTML documents.



A Scoring Indicators

Correct HTML code (use of definition list)

Score: 3 Time: 5 mts

Learning Outcomes

- 5.1, Distinguishes various types of lists available in HTML.
- Pick the wrong one from the statements given below: O. 4
 - Α. and have Type attribute
 - В. Default numbering scheme in is 1, 2, 3...
 - C. In Definition List, <DD> tag is used to give definition of terms
 - D. Start attribute of ordered list should always be set to 1



Scoring Indicators

D. Start attribute of ordered list should always be set to 1

Score: 1 Time: 2 mts

Learning Outcomes

- 5.2, Links various web pages and sections within a webpage.
- Q. 5 Predict the output of the following HTML segment.

```
<OL Type= "1" start= "5">
    <Li> Chocolate</Li>
    <Li> Milk</Li>
    <Li> Coffee</Li>
</OL>
```



Scoring Indicators

- 5. Chocolate
- 6. Milk
- 7. Coffee Score: 3

Time: 6 mts

Learning Outcomes

- 5.1, Distinguishes various types of lists available in HTML.
- Compare the use of Type attribute in Ordered and Unordered list in HTML?



Scoring Indicators

Type attribute features in Ordered list and Unordered list - 1 score each.

Score: 2

Time: 4 mts

Learning Outcomes

- 5.1, Distinguishes various types of lists available in HTML.
- Create HTML code for the following output.
 - 1. **Flowers**
 - **Tasmine**
 - Rose
 - Lily
 - 2. Vegetables
 - Beetroot
 - Cabbage
 - Cucumber
 - 3. Fruits
 - i. Apple
 - ii. Orange
 - iii. Pineapple



Scoring Indicators

Correct HTML code using nested link Correct use of , , tags 1 score each

Score: 5

Time : 10 mts

- 5.2, Links various web pages and sections within a webpage.
- Which of the following is the correct way to create an email link?
 - A.
 - B. <mail href="abc@xyz">
 - <mail>"abc@xyz">
 - D.

Scoring Indicators

D.

Score: 1

Time: 2 mts

Learning Outcomes

- 5.2, Links various web pages and sections within a webpage.
- Q. 9 Differentiate internal linking and external linking with examples.



Scoring Indicators

Correct definition 1 score each. Each example ½ score each

Score: 3

Time: 5 mts

Learning Outcomes

- 5.2, Links various web pages and sections within a webpage.
- Q. 10 Point out the difference between relative and absolute URL.



A Scoring Indicators

Definition/Differences of absolute and relative URL - 1½ Score each.

Score: 3

Time: 6 mts

Learning Outcomes

- 5.2, Links various web pages and sections within a webpage.
- Q. 11 There are two web pages in the class project created by Mathew. The second page should appear in the browser when clicked at a particular text in the first page. What do you call this feature? Name the tag and attribute needed for creating such a feature.



Scoring Indicators

Link - 1 Score <A >, Href ½ score each

> Score: 2 Time: 3 mts

Learning Outcomes

- 5.2, Links various web pages and sections within a webpage.
- Q. 12 While moving the mouse pointer over a web page, the mouse pointer changes its shape to hand icon symbol.
 - A. Give reason for this change in mouse pointer.
 - B. Name the tag and attributes used for it.



Scoring Indicators

A) It is a hyper link - score 1

B) <A> tag, href attribute - 1 score each

Score: 3

Time: 6 mts

Learning Outcomes

- 5.2, Links various web pages and sections within a webpage.
- Q. 13 HTML has facility to provide external and internal hyper links.
 - A. Which tag is used to include a hyper link?
 - B. Explain two attributes needed for creating internal hyper link.



Scoring Indicators

A. <A> - Score 1

B. name, href (brief description 1 score each)

Score: 3

Time: 6 mts

Learning Outcomes

- 5.3, Embeds various audio, and video files in a web page.
- Q. 14 Match the following.

| EMBED | href |
|---------|--------|
| OL | loop |
| Α | start |
| BGSOUND | hidden |



Scoring Indicators

EMBED – hidden, OL-start, A-href, BGSOUND - loop (½ score for each correct answer).

Score: 2

- 5.4, Embeds inline audio video.
- Q. 15 Name the tag which is used to play the music in background while the webpage is being viewed.



A Scoring Indicators

<BGSOUND>

Score: 1 Time: 2 mts

Learning Outcomes

- 5.5, Lists various tags and attributes in creating a table.
- Q. 16 Create the following webpage using HTML.

| ANIMALS | | |
|-------------|-----------|--|
| WILD | DOMESTIC | |
| BEAR, TIGER | GOAT, DOG | |



Scoring Indicators

Correct HTML code for the Table Tags<TABLE><TR><TD><TH> tags correct use ½ score each

> Score: 5 *Time* : 10 mts

Learning Outcomes

- 5.6, Compares tags such as TD, TH and their attributes and uses.
- Q. 17 Distinguish Cellspacing and Cellpadding attributes of <TABLE> tag.



A Scoring Indicators

Definition of cellspacing and cellpadding / difference between two –score 2

Score: 2

Time: 4 mts

Learning Outcomes

- 5.7, Illustrates the creation of Table.
- Q. 18 Observe the table with two rows. Which of the following is used with TD tag to merge the cells C and D?

| A | В |
|---|---|
| С | D |

- Merge=colspan 2
- Rowspan="2" В.
- C. Colspan="2"
- D. Merge=raw2



Scoring Indicators

Colspan= "2"

Score: 1 Time: 2 mts

Learning Outcomes

5.7, Illustrates the creation of Table.

Q. 19 Write a code to develop the following HTML table.

| Sl. | Name | Scores | | |
|---|-------|--------|----|----|
| No. | | CE | PE | TE |
| 1 | Aju | 14 | 18 | 40 |
| 2 | Biju | 17 | 18 | 42 |
| 3 | Anees | 15 | 16 | 34 |
| $\left[\begin{array}{c c}4\end{array}\right]$ | Joy | 17 | 19 | 50 |



Scoring Indicators

Correct <HTML> code for the table - Score 5

<TABLE>, <TD>, <TH>,<TR> correct usage of each tag ½ score each

Correct usage of rowspan, colspan ½ mark each

Score: 5

Time : 10 mts

Learning Outcomes

- 5.8, Illustrates the use of frames and framesets.
- Q. 20 Why do we use <NOFRAME> tag?



Scoring Indicators

Use of NOFRAME - score 2

Score: 2

- 5.8, Illustrates the use of frames and framesets.
- Q. 21 Differentiate <FRAME>, <FRAMESET> and <NOFRAME> tags.

A Scoring Indicators

Correct definition of each tag - 1 score each

Score: 3

Time: 6 mts

Learning Outcomes

- 5.9. Creates frames.
- Q. 22 Aliya wants to display three webpages (A.htm, B.htm, C.htm) on the same screen horizontally at the ratio 20%, 40%, 40%. Write the HTML code for the same.

A Scoring Indicators

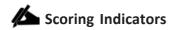
```
<FRAMESET ROWS="20%,40%,40%">
  <FRAME Src= "A.htm">
  <FRAME Src= "B.htm">
  <FRAME Src= "C.htm">
  </FRAMESET >
  Correct code (score 2)
  (Correct usage of <FRAMESET>, <FRAME> Src 1 score each)
```

Score: 3

Time: 6 mts

Learning Outcomes

- 5.9, Creates frames.
- Q. 23 Categorize the following tags into container tags and empty tags.



Empty tag <FRAME>, <INPUT>
Container tag <FRAMESET>, <A> ½ score each correct statement

Score: 2

Time: 4 mts

- 5.9, Creates frames.
- Q. 24 Write an HTML code to create a web page with 3 frames as shown below:

| 30% | Main.htm | | |
|-----|-----------|-----------|--|
| | Page1.htm | Page2.htm | |
| 70% | | | |
| | 50% | 50% | |



Scoring Indicators

Correct code - score 3 Correct Use of <FRAMESET>, <FRAME> tag - 1 score each

> Score: 3 Time: 6 mts

Learning Outcomes

- 5.10, Explains the use of forms in HTML.
- Q. 25 Write an HTML code to create a form having facility to
 - Input name using text box
 - В. Select gender using two radio buttons
 - C. Input address
 - A submit button with caption 'OK' D.



Scoring Indicators

HTML structure tags - 1 score Each sub question - 1 score each

> Score: 5 *Time* : 10 mts

Learning Outcomes

- 5.11, Lists the use of forms in html and its components.
- Q. 26 Explain any three attributes of <FORM> tag.



Scoring Indicators

Any three attributes like Action, method, Target with explanation - 1 score each. Name only ½ score each.

> Score: 3 Time: 6 mts

- 5.11, Lists the use of forms in html and its components.
- Q. 27 The <FORM> tag is used to accept data and communicate with a server program.
 - Name any two attributes of FORM tag. Α.
 - How will you create a "SUBMIT" button and a "RESET" button with В. in the FORM tag?



Scoring Indicators

A. Action, Method etc - Score 1

B. <INPUT Type="submit"> <INPUT Type="reset"> - Score 2

Score: 3 Time: 6 mts

Learning Outcomes

- 5.11, Lists the use of forms in html and its components.
- Q. 28 Which of the following tag is used to create a list box in a html Form?
 - a) <SUBMIT> b) <INPUT> c)<SELECT> d)<ACTION>



Scoring Indicators

<SELECT>

Score: 1

Time: 2 mts

Learning Outcomes

- 5.11, Lists the use of forms in html and its components.
- Q. 29 <INPUT> tag helps in creating different types of controls in a form. **Type** is an important attribute of <INPUT> tag.
 - A. Write any two other attributes of <INPUT> tag.
 - B. Mention any two values of Type attribute and explain its use in the form.



Scoring Indicators

- A. Name, Value etc ½ score each
- B. Values of type attribute text, password, radio, reset etc any two with its use score 1 each. Name only score ½ each

Score: 3 Time: 6 mts

Learning Outcomes

- 5.11, Lists the use of forms in html and its components.
- Q. 30 The tag used for creating a dropdown list in HTML is _____.



Scoring Indicators

<Select>

Score: 1 Time: 2 mts



CASCADING STYLE SHEET

Learning Outcomes

- 6.1, Explains the need to use CSS in a web page.
- Q. 1 Following are some of the points regarding CSS.
 - a) reduces the size of the web page.
 - b) helps to interact with the database.
 - c) makes consistency in web pages.
 - d) same web page can be viewed in different devices with different screen size, without the lose of information.
 - e) describes the appearance of contents in a web page.

Among the above statements, some are incorrect. Identify them.



Scoring Indicators

a

Score: 1 Time: 2 mts

Learning Outcomes

- 6.2, Identifies various parts of a style rule.
- Following is a style rule in CSS. Q. 2

```
BODY {background-color : yellow;}
```

Identify the Declaration Block, Selector, Property and Value in the above style rule.



Scoring Indicators

```
- selector
{background-color : yellow;} - declaration block
background-color
                               - property
                                                     Score: 1/2 each
yellow
                               - value
                                                       Time: 5 mts
```

- 6.2, Identifies various parts of a style rule.
- Following are some of the points regarding style rules in CSS. Identify the Q. 3 correct statements.
 - a) style rule has two portions namely selector and declaration.
 - b) declaration block can contain only one declaration.
 - c) a declaration has a property and one or more values for it.
 - d) the symbol "is used to separate a property name with its value.



Scoring Indicators

a and c

Score: 1 each

Time: 2 mts

Learning Outcomes

- 6.2, Identifies various parts of a style rule.
- Following is a style rule for the <BODY> to change the margin to 50 pixels. O. 4 Complete the blank space.

```
BODY {.....}
```



Scoring Indicators

margin : 50px;

Score: 1

Time: 2 mts

Learning Outcomes

- 6.3, Explains the method to embed style rule in a web page.
- Q. 5 Following is a portion of the web page that uses CSS. Complete the blank space.

```
<SCRIPT type=.....>
BODY {font-family: 'Tahoma';}
</SCRIPT>
```



Scoring Indicators

'text/css'

Score: 1

Time: 2 mts

- 6.4, Distinguishes different types of selectors.
- Among the following style rules, identify the type of selectors used in each Q. 6 case.

- a) P { color : red; } b) #style1 { color : red; } .style2 { color : red;} d) * { color : red; }

- a) type selector
- b) id selector
- c) class selector
- d) universal selector

Score: 1/2 each Time: 3 mts

Learning Outcomes

- 6.4, Distinguishes different types of selectors.
- The style rule given for ______ selector will be applicable for the entire Q. 7 contents in the web page and the style rule defined for _____ selector will be applicable for only a single element in the web page.



Scoring Indicators

universal selector, id selector

Score: 1/2 each Time: 2 mts

Learning Outcomes

- 6.4, Distinguishes different types of selectors.
- Q. 8 Match the following.

| class selector | HEAD |
|--------------------|------|
| id selector | • |
| universal selector | # |
| type selector | * |



Scoring Indicators

```
class selector
id selector
universal selector
type selector
                        HEAD
```

Score: ½ each Time: 3 mts

- 6.4, Distinguishes different types of selectors.
- You want to apply a particular style rule to only a single location in the web page. Which type of selector is best suitable for this? Explain the use of this selector with an example.



id selector explanation and example

Time: 5 mts

Score: 1 Score: 2

Learning Outcomes

- 6.4, Distinguishes different types of selectors.
- Q. 10 You want to apply a particular style rule to complete the content in a web page. Which type of selector is best suitable for this? Explain the use of this selector with an example.



A Scoring Indicators

universal selector explanation and example

Score: 2

Score: 1

Time: 5 mts

Learning Outcomes

- 6.4, Distinguishes different types of selectors.
- Q. 11 Explain the difference between the use of class selector and id selector.



Scoring Indicators

Class selector can be used to apply the style rules to more than one place in a web page where as id selector can be used to apply the style rule to only a single place in the web page. Class selector uses dot symbol . and Id selector uses hash symbol (#).

Score: 1½ for each point

Time: 5 mts

- 6.5, Uses properties applicable to format text in a web page.
- Q. 12 Following are some of the properties used in style rules and their values. Match them.

| Property | Value |
|-------------|--------|
| font-style | Arial |
| font-weight | 20px |
| font-family | bold |
| font-size | italic |

font-style : italic font-weight : bold font-family : Arial font-size : 20px

Score: 1/2 each Time: 4 mts

Learning Outcomes

- 6.5, Uses properties applicable to format text in a web page.
- Q. 13 Among the following, identify the property that can take the value 'bold': font-family, font-size, font-weight, font-style.



Scoring Indicators

font-weight

Score: 1

Time: 2 mts

Learning Outcomes

- 6.5, Uses properties applicable to format text in a web page.
- Q. 14 Following are some of the properties used in style rules and their values. Match them.

| Property | Value |
|-----------------|-----------|
| text-decoration | justify |
| text-align | 1.5 |
| text-intend | underline |
| line-height | 20px |



Scoring Indicators

text-decoration : underline text-align : justify : 20px text-intend line-height : 1.5

> Score: 1/2 each Time: 4 mts

- 6.5, Uses properties applicable to format text in a web page.
- Q. 15 Name the property used in style rules that can take the value 'underline'.



text-decoration

Score: 1 Time: 2 mts

Learning Outcomes

- 6.6, Explains various properties used for displaying text.
- Q. 16 Following are some of the statements regarding the different methods for including CSS in a web page. Identify the correct statements.
 - Internal Style Sheet uses style attribute to include styles.
 - b) Inline Style uses the method of including the style rules within <STYLE>... </STYLE> tags.
 - External Style Sheet uses a separate CSS files.



Scoring Indicators

c only Score: 1 Time: 2 mts

Learning Outcomes

- 6.6, Explains various properties used for displaying text.
- Q. 17 Match the following:

| Internal Style Sheet | .css extension |
|----------------------|---|
| External Style Sheet | style attribute |
| Inline Style | <link/> tag |
| CSS file | <style> tag</td></tr></tbody></table></style> |



Scoring Indicators

Internal Style Sheet External Style Sheet Inline Style CSS file.

<STYLE> tag <LINK> tag style attribute css extension

Score: ½ each Time: 3 mts

- 6.6, Explains various properties used for displaying text.
- Q. 18 Explain the advantages of including style sheet as a separate CSS file.



A Scoring Indicators

The same CSS file can be used by all the pages in a web site. All the pages in a web site will have a uniformity in appearance.

Modification in the CSS is very easy.

Score: 1 for each point Time: 4 mts

Learning Outcomes

- 6.7, Groups selectors in CSS in a web page.
- Q. 19 Why do we need to group selectors in a style rule? Explain with the help of an example.



Scoring Indicators

Example Score: 1½ Explanation Score: 11/2 Time: 5 mts

- 7.1, Describes the use of a web server and the concept of web hosting.
- The companies that provide web hosting services are called ____.



Scoring Indicators

Web Hosts Score: 1 Time: 1 mt

Learning Outcomes

- 7.1, Describes the use of a web server and the concept of web hosting.
- The service of providing storage space in a web server to make a website available on Internet is called _____.



Scoring Indicators

web hosting Score: 1 Time: 1 mt

Learning Outcomes

- 7.2, Classifies different types of hosting.
- Q. 3 Consider that your school is planning to host a website. What are the factors that you will consider while choosing the type of web hosting?



Scoring Indicators

Amount of space, no. of visitors, database support, programming support

Score: ½ score each Time: 2 mts

- 7.2, Classifies different types of hosting.
- Q. 4 Mr. Mohan wants to host a personal website with minimal cost. Which type of web hosting would you advise for him? Justify your answer.



Shared hosting/free hosting Correct justification

Score: 3

Time: 3 mts

Learning Outcomes

- 7.2, Classifies different types of hosting.
- Q. 5 Which of the following is true in the case of dedicated hosting?
 - It shares server with other websites.
 - b It is usually inexpensive.
 - It does not guarantee performance.
 - Loffers freedom for the clients to choose the hardware and the softd. ware.



Scoring Indicators

Score: 1 each d only

Time: 2 mts

Learning Outcomes

- 7.2, Classifies different types of hosting.
- O. 6 Choose the odd one out, and justify your answer.
 - a. Shared hosting

b. Dedicated hosting

c. DNS

d. Virtual Private Server



Scoring Indicators

DNS others are types of web hosting.

Score: 1 each Time: 3 mts

Learning Outcomes

- 7.2, Classifies different types of hosting.
- Q.7 Explain different types of web hosting?



Scoring Indicators

Shared hosting, dedicated hosting, virtual private server – Listing (½ score each) Explanation (½ score each)

Score: 3

Time: 4 mts

- 7.2, Classifies different types of hosting.
- Q. 8 Suggest a hosting type for the following websites given below. Justify.
 - a. Website for a medical shop in your city.
 - b. Website for Public Service Commission (PSC) of Kerala.
 - c. Website for an online shopping facility.



Scoring Indicators

- a. Shared hosting
- b. Dedicated/VPS
- c. Dedicated/VPS

listing (½ score) + justification (½ score) each

Score: 3

Time: 4 mts

Learning Outcomes

- 7.2, Classifies different types of hosting.
- Consider that a college in your locality plans to shift its website from shared type of hosting to VPS hosting. List the advantages that the website will gain from this change.



A Scoring Indicators

Separate server OS, Install any software, restart server, less cost than dedicated – (listing 1 score each)

Score: 3

Time: 3 mts

Learning Outcomes

- 7.2, Classifies different types of hosting.
- Q. 10 Suppose a software firm is designing website of a company that has around 300 web pages, around 50000 visitors per day, contains extensive PHP programming and uses database heavily. Which type of web hosting will you choose? Justify.



Scoring Indicators

Dedicated – 1 score Correct justification

> Score: 3 Time: 4 mts

- 7.2, Classifies different types of hosting.
- Q. 11 Consider that the website of your shop is using shared hosting. Due to an attractive discount offer in your website, your site is currently visited by a large numbers of visitors. What will be the effect of this large volume of traffic in your website on other websites hosted in the same web server? Why?



Scoring Indicators

It will slow down all other websites hosted in the shared server Score: 1 This is because the bandwidth is shared by several websites Score: 1

Time: 3 mts

Learning Outcomes

- 7.2, Classifies different types of hosting.
- Q. 12 In dedicated hosting, if the client is allowed to place his own purchased web server in the service provider's facility, then it is called ____



Scoring Indicators

Co-location Score: 1

Time: 1 mt

Learning Outcomes

- 7.4, Registers a domain and hosts a website using FTP client software.
- Q. 13 Emmanuel wishes to buy a suitable domain for his company. Unfortunately, the domain name he chose is already registered by someone else. Name the feature that will help him to find the current owner. List the details will he get.



Scoring Indicators

WHOIS Score: 1 Name, address, telephone number and e-mail address of the registrant Score: 2

Time: 3 mts

Learning Outcomes

- 7.4, Registers a domain and hosts a website using FTP client software.
- O. 14 What are the informations contains in a ICANN database?



Scoring Indicators

Registered domain names/name, address, telephone number and e-mail address of the registrants.

Score: 2

Time: 3 mts

7.4, Registers a domain and hosts a website using FTP client software.

Q. 15 What is 'A record'?



Scoring Indicators

'A record' is used to store the IP address of a web server connected to a domain name.

Score: 1

Time: 1 mt

Learning Outcomes

- 7.4, Registers a domain and hosts a website using FTP client software.
- Q. 16 What is the use of FTP client software? Give an example.



Scoring Indicators

Transfer of files from our computer to web server; Filezilla/CuteFTP/SmartFTP

Score: 2

Time: 2 mts

Learning Outcomes

- 7.4, Registers a domain and hosts a website using FTP client software.
- Q. 17 The organization that maintains the WHOIS database of domain names is



Scoring Indicators

ICANN

Score: 1

Time: 1 mt

Learning Outcomes

- 7.4, Registers a domain and hosts a website using FTP client software.
- Q. 18 'A record' of the domain name stores the IP address of a web server where web pages of a website are stored. Explain the need for this.



Scoring Indicators

Explanation about 'A' record.

Score: 2

Time: 3 mts

- 7.4, Registers a domain and hosts a website using FTP client software.
- Q. 19 Explain the advantages of using SFTP protocol in FTP client software.



A Scoring Indicators

SSH FTP protocol encrypts and sends usernames, passwords and data to the web server.

Score: 2

Time: 3 mts

Learning Outcomes

- 7.5, Explains the features of free hosting.
- Q. 20 Merin plans to create a website for their family without spending money.
 - List some of the limitations that Merin will face regarding the hosting space for website.
 - How will she provide a domain name for the website?



Scoring Indicators

- a. Advertisements, size of files are restricted, audio/video files may not be permitted, some sites will not allow external files - Any two (1 score each)
- b. Free web hosting services usually provide either their own subdomain (oursite.example.com) or as a directory service (www.example.com/oursite) for accessing websites.

Score: 4

Time: 5 mts

Learning Outcomes

- 7.5, Explains the features of free hosting.
- Q. 21 Haseena has decided to host her new website using free hosting facility; her friend Rinisha is against this move. Can you guess her argument against the utilization of free hosting facility?



A Scoring Indicators

Advertisements, size of files are restricted, audio/video files may not be permitted, some sites will not allow external files – (Any three - 1 score each)

Score: 3

Time: 4 mts

- 7.6, Identifies the use of Content Management System.
- Q. 22 Recently more and more people are using Content Management Systems (CMS) for developing professional websites. What can be the reasons for this?



Provides standard security features in its design, helps people with less technical knowledge to design and develop websites, reduce the need for repetitive coding, availability of code for designing headings and menus, free templates – (Any three - 1 score each)

Score: 3

Time: 4 mts

Learning Outcomes

- 7.6, Identifies the use of Content Management System.
- Q. 23 Joomla is an example for _____.
 - **CMS** a)

b) ISP

DNS c)

d) None of the above



Scoring Indicators

CMS

Score: 1

Time: 1 mt

Learning Outcomes

- 7.7, Describes the need for responsive web design.
- Q. 24 The responsive web design feature that converts horizontal menu to a drop down menu in mobile phones is called _____.



Scoring Indicators

Media queries

Score: 1

Time: 1 mt

Learning Outcomes

- 7.7, Describes the need for responsive web design.
- Q. 25 a. What is responsive web design?
 - b. Why is it gaining importance recently?



Scoring Indicators

- a. Responsive web design is the custom of building a website suitable to work on every device - 1 score
- b. Today people visit websites using tablets and mobile phones/proper display of websites in devices - 1 score

Score: 2

Time: 3 mts

- 7.7, Describes the need for responsive web design.
- Today, we visit websites using tablets and mobile phones also. You might have noticed that the same website is displayed in a different layout in different devices.
 - a. Name the concept used for this.
 - b. List and explain the technologies used for implementing this concept.



Scoring Indicators

- Responsive Web Design 1 score
- Flexible grid layout, flexible images and media queries 1 score each (½ score listing + ½ score – explanation)

Score: 4 Time: 6 mts

Learning Outcomes

- 7.4, Registers a domain and hosts a website using FTP client software.
- Q. 27 Priya has developed a website for her shop. She has purchased a domain name and hosting space.
 - Name the software that will help her to transfer her files from her a. computer to the web server.
 - b. List the requirements in that software that are necessary to connect to the web server.



A Scoring Indicators

- a. FTP software/FileZilla, CuteFTP, SmartFTP (Any one 1 score)
- Domain name/IP address, user name, password (Any two 1 score each))

Score: 3

Time: 3 mts



DATABASE MANAGEMENT SYSTEM

Learning Outcomes

- 8.1, 8.2, Recognizes the need for files, Identifies the major limitations of the conventional file management system.
- Which of the following statements are true? O. 1
 - (1) DBMS facilitates storage, retrieval and management of databases.
 - (2) We must keep more copies of the same data in databases.
 - (3) Data inconsistency is eliminated in DBMS.
 - (4) DBMS allows sharing of data, but does not ensure security.

Choose the correct option from the following:

- (a) Both 1 and 3 are true
- (b) Statements 1, 3 and 4 are true
- (c) Statements 1, 2 and 4 are true
- (d) All statements are true

Scoring Indicators

(a) Both 1 and 3 are true

Score: 1 Time: 3 mts

Learning Outcomes

- 8.2, 8.3, Identifies the major limitations of the conventional file management system, Lists and explains the different advantages of the database management system.
- Q. 2 We have admission register, attendance register, marks register, etc. in our school to keep various details of students. Briefly describe how DBMS can replace these registers by stating any five merits.

Scoring Indicators

For specifying any five advantages of DBMS – $5 \times \frac{1}{2} = 2\frac{1}{2}$ score For connecting with given situation $-5 \times \frac{1}{2} = \frac{21}{2}$ score

Score: 5 *Time* : 10 mts

- 8.3, Lists and explains the different advantages of the database management
- Which of the following refers to duplication of data in files? Q. 3
 - (a) Data redundancy
 - (b) Data inconsistency
 - (c) Data integrity
 - (d) Data security



Scoring Indicators

(a) Data redundancy

Score: 5

Time: 2 mts

Learning Outcomes

- 8.3, Lists and explains the different advantages of the database management system.
- Data sharing is an essential feature of DBMS. How data sharing reduces O. 4 the data inconsistency in a database? Data sharing is an essential feature of DBMS. How data sharing reduces the data inconsistency in a database?



Scoring Indicators

Connects data redundancy, data inconsistency and data sharing.

Score: 3

Time: 6 mts

Learning Outcomes

- 8.4, Lists the various components of the DBMS and explains their purpose.
- Explain the major components of DBMS.



Scoring Indicators

Data, software, hardware, user – 2 score, Explanation – 3 score.

Score: 5

Time : 10 mts

- 8.5, Recognizes the types of users and their roles in the DBMS environment.
- Q. 6 The following are some responsibilities of database users. Which of them belong to Database Administrator?
 - Design the conceptual schema of the database. 1)
 - Develops programs to interact with the database. 2)
 - 3) Interacts with the database through queries.
- 4) Ensures authorised and secured access of data.

- (a) Both 1 and 3
- (b) Except 2 and 3
- (c) 1, 2 and 4
- (d) All the four



(b) Except 2 and 3

Score: 1

Time: 2 mts

Learning Outcomes

- 8.5, Recognizes the types of users and their roles in the DBMS environment.
- Categorise the users of DBMS and write their functions.



A Scoring Indicators

Four types of users – 2 score, Role of each – 2 score

Score: 4

Time: 8 mts

Learning Outcomes

- 8.6, Explains the levels of data abstraction and data independence in DBMS.
- Choose the level of database abstraction that describes what data is stored O. 8 in the database and what relationships exist among them.
 - (a) External (b) Logical (c) Physical (d) View



(b) Logical

Score: 1

Time: 2 mts

Learning Outcomes

- 8.7, Explains the relational model by citing examples.
- Q. 9 Write an example for relational data model.



Scoring Indicators

Any table showing data and relationship among them (1 + 1 = 2 score)

Score: 2

Time: 5 mts

- 8.8, Uses the different terminologies in RDBMS appropriately.
- Q. 10 Observe the following table and choose the correct match from the following options:

| | Column A | | Column B |
|----|--------------------|----|-------------------|
| 1) | Cardinality | A) | Row of a table |
| 2) | Degree | В) | Table |
| 3) | Degree
Relation | C) | Number of rows |
| 4) | Tuple | D) | Number of columns |
| | | E) | Attribute |

(a)
$$1 \rightarrow B$$
, $2 \rightarrow D$, $3 \rightarrow E$, $4 \rightarrow C$

(a)
$$1 \rightarrow B$$
, $2 \rightarrow D$, $3 \rightarrow E$, $4 \rightarrow C$ (b) $1 \rightarrow C$, $2 \rightarrow D$, $3 \rightarrow E$, $4 \rightarrow A$

(c)
$$1 \rightarrow C$$
, $2 \rightarrow D$, $3 \rightarrow B$, $4 \rightarrow A$

(c)
$$1 \rightarrow C$$
, $2 \rightarrow D$, $3 \rightarrow B$, $4 \rightarrow A$ (d) $1 \rightarrow D$, $2 \rightarrow C$, $3 \rightarrow B$, $4 \rightarrow E$



A Scoring Indicators

(c)
$$1 \rightarrow C$$
, $2 \rightarrow D$, $3 \rightarrow B$, $4 \rightarrow A$

Score: 1 Time: 3 mts

Learning Outcomes

- 8.8, Uses the different terminologies in RDBMS appropriately.
- Q. 11 Pick the odd one out and justify your answer:
 - (a) Column
- (b) Attribute

(c) Field

(d) Tuple



Scoring Indicators

(d) Tuple. The other three terminologies indicate the same characteristic of a table.

 $(\frac{1}{2} + \frac{1}{2} = 1 \text{ score})$

Score: 1 Time: 2 mts

- 8.8, Uses the different terminologies in RDBMS appropriately.
- Q. 12 Which of the keys in a relation do not allow null values? Choose the most appropriate option from the following.
 - (a) Primary key
 - (b) Candidate key
 - (c) Both primary key and candidate key
- (d) Either primary key or candidate key



(c) Both primary key and candidate key

Score: 1 Time: 2 mts

Learning Outcomes

- 8.8, Uses the different terminologies in RDBMS appropriately.
- Q. 13 Suppose a table (relation) contains the details of customers in a bank. Which attribute of the customer will be set as primary key for the table? Give reason for your opinion.



A Scoring Indicators

Account number – 1 score; *Justification – 1 score*

Score: 2

Time: 4 mts

Learning Outcomes

- 8.8, Uses the different terminologies in RDBMS appropriately.
- Q. 14 How many distinct tuples and attributes are there in a relation with cardinality 22 and degree 7.



Scoring Indicators

Number of tuples -22, attributes -7.

Score: 2

Time: 2 mts

Learning Outcomes

- 8.8, Uses the different terminologies in RDBMS appropriately.
- Q. 15 Distinguish primary key and alternate key.



Scoring Indicators

Write any 2 points

Score: 2

Time: 4 mts

- 8.8, 8.9, Uses the different terminologies in RDBMS appropriately, Applies and evaluates the various operations in relational algebra.
- Q. 16 Observe the given table named STUDENT and answer the following questions:

| Admission_No | Roll_No | Name | Gender | Batch |
|--------------|---------|-----------------|--------|------------|
| 1236 | 23 | Rajeev Mohan | M | Science |
| 1278 | 41 | Veena Jayan | F | Science |
| 1285 | 23 | Nirmal Kumar | M | Commerce |
| 1292 | 18 | Maya Chandran | F | Humanities |
| 1301 | 35 | Rajeev Mohan | M | Commerce |
| 1308 | 20 | Arunima Vijayan | F | Humanities |

- (a) Which column of this table can be considered as primary key? Justify your answer. [2 score]
- (b) What is the degree and cardinality of this table?

[1 score]

(c) Write down the domain of column *Gender*.

[1 score]

(d) Write a relational expression to get the details of all *Female* students.

[2 score]

(e) What will be the output of the following relational expression?

$$\pi_{\text{Name}}(\text{Batch='Science'}(\text{STUDENT}))$$
 [2 score]

Scoring Indicators

- (a) Admission_No -1 score. Specifying the criterion for primary key with respect to the given table -1 score.
- (b) Degree 4 and Cardinality 6 ($\frac{1}{2} + \frac{1}{2} = 1$ score)
- (c) {M, F} (1 score)
- (d) Gender= 'F' (STUDENT)

 (Correct symbol ½ score, condition 1 score, table specification ½ score)
- (e) Name

Rajeev Mohan

Veena Jayan (1 score each for each of these names)

Score: 8

Time : 12 mts

Learning Outcomes

60

• 8.8, 8.9, Uses the different terminologies in RDBMS appropriately, Applies and evaluates the various operations in relational algebra.

Cardinality of a table T1 is 10 and of table T2 is 8 and the two relations are union compatible. If the cardinality of result T1 T2 is 13, then what is the cardinality of T1 T2? Justify your answer.

Scoring Indicators

5 (1 score), (Justification with union and intersection operations – 2 score)

Score: 3

Time: 6 mts

Learning Outcomes

- 8.8, 8.9, Uses the different terminologies in RDBMS appropriately, Applies and evaluates the various operations in relational algebra.
- Q. 18 Cardinality of a table A is 10 and of table B is 8 and the two relations are union compatible.

What will be the maximum possible cardinality of (A B) and (A B)? What will be the minimum possible cardinality of (A B) and (A B)? Give justification for your answers.



Scoring Indicators

Maximum possible cardinality of (A B) is 18. Maximum possible cardinality of (A B) is 8. Minimum possible cardinality of (A B) is 10 Minimum possible cardinality of (A B) is 0. (Results $-4 \times \% = 2$ score; Justification $-4 \times 1 = 4$ score)

Score: 6

Time: 6 mts

- 8.9, Applies and evaluates the various operations in relational algebra.
- Q. 19 A table with three columns is given below. For each relational operation given in the 1st column find the best matches from 2nd and 3rd columns.

| Operation | Symbol | Feature |
|-------------------|------------------------------|---|
| 1. Select | a) | (i) Output will be only those rows in the first operand table that are not in the second operand. |
| 2. Union | b) – (<i>minus</i>) | (ii) Gives the horizontal subset of the operand table. |
| 3. Set Difference | c) (sigma) | (iii) Gives a table that contains all rows of the operand tables. |
| | d) | (iv) Gives the vertical subset of the operand table. |



$$1 \rightarrow c \rightarrow (ii), 2 \rightarrow d \rightarrow (iv), 3 \rightarrow b \rightarrow (i)$$

(1 score (% + %)) each for correct 2 matches for each item in 1st column. If the item from either 2^{nd} or 3^{rd} column does not match for an operation, reduce ½ score)

> Score: 3 Time: 4 mts

Learning Outcomes

- 8.9, Applies and evaluates the various operations in relational algebra.
- Q. 20 Which of the following operations can extract the specified columns of a table?
 - (a) Selection (b) Projection (c) Intersection (d) Set Difference



Scoring Indicators

(b) Projection

Score: 1 Time: 2 mts

Learning Outcomes

- 8.9, Applies and evaluates the various operations in relational algebra.
- Q. 21 Observe the given table BOOK and write down the outputs of the following relational expressions:

| Book_Code | Book_Title | Publisher | Price |
|-----------|-----------------------|-------------------|-------|
| C105 | Computer Fundamentals | BPB | 198 |
| C108 | C++ Programming | BPB | 170 |
| P105 | Physics | NCERT | 215 |
| P112 | Physics | SCERT | 200 |
| C112 | Mystery of Chemistry | Tata MacGraw Hill | 189 |

Publisher= 'BPB' (BOOK) (a)

 $_{Book_Title}(_{Price < 200}(BOOK))$ (b)



Scoring Indicators

Correct resultant rows – 1 score, attribute names 1 score for each of the questions.

Score: 4

Time: 8 mts

- 8.9, Applies and evaluates the various operations in relational algebra.
- Q. 22 The schema of a table is EMPLOYEE(emp_code, emp_name, designation, salary). Write down the relational expressions for the following:
- To get the name and designation of all employees. [2 score]
- (b) To get the details of employees whose salary is above 25000. [2 score]
- To get the names of employees who designation is Manager. (c) [3 score]
- (d) To get the details of Managers with salary less than 25000. [3 score]

Scoring Indicators

Correct symbols – ½ score, Conditions – 1 score, Table – ½ score Nested query – 1 score

Score: 3

Time: 8 mts



STRUCTURED QUERY LANGUAGE

Learning Outcomes

- Recognise the importance and features of Structured Query Language (9.1).
- How is SQL different from other computer high level languages?



A Scoring Indicators

Definition and purpose of SQL.

Score: 2 Time: 4 mts

Learning Outcomes

- Explain the components of SQL. Distinguish DDL, DML and DCL commands (9.2, 9.3).
- Which are the components of SQL? How do they help to manage database?



Scoring Indicators

Components − 1½ score; Role of each − 1½ score

Score: 3

Time: 4 mts

Learning Outcomes

- List different data types and their features (9.5).
- Q. 3 Differentiate CHAR and VARCHAR data types of SQL.



A Scoring Indicators

Correct difference -1 + 1 = 2 score

Score: 2

Time: 4 mts

Learning Outcomes

- Explain the effect of different constraints (9.6).
- O. 4 Suppose we want to include a column in a table in which serial numbers are to be stored automatically on adding new records. Which constraint is to be used for that column during table creation?



Scoring Indicators

Auto_Increment

Score: 1

Time: 2 mts

- Explain the effect of different constraints. Use DML commands like SELECT, INSERT, UPDATE and DELETE for data manipulation (9.6).
- Distinguish the SQL keywords UNIQUE and DISTINCT. Q. 5



A Scoring Indicators

UNIQUE – Avoids duplication while storing data. Used with CREATE command. DISTINCT – Avoids duplication while retrieving data. Used with SELECT command. 1 score for each differentiating point. Score: 2

Time: 4 mts

Learning Outcomes

- Perform operations using DDL commands like CREATE, ALTER and DROP (9.6, 9.8).
- Which of the following cannot be used to name a table in SQL? Give the reason.
 - Studnt50 (a)
- Table
- \$Employee
- (d) Stock_123



(b) Table -1 score; It is a keyword and hence not allowed -1 score

Score: 1

Time: 3 mts

Learning Outcomes

- Perform operations using DDL commands like CREATE, ALTER, DROP (9.7).
- Identify errors in the following SQL statement and rewrite it correctly. O. 7 Underline the corrections.

```
CREATE student TABLE
(admno PRIMARY KEY,
 roll no INT,
name CHAR);
```



Scoring Indicators

Four corrections $-\frac{1}{2} \times 4 = 2$ score

Score: 2

Time: 3 mts

Learning Outcomes

- Perform operations using DDL commands like CREATE, ALTER, DROP (9.7).
- Which of the following commands is used to view the structure of a table?
 - SHOW TABLES
- (b) DESC

SELECT (c)

(d) DISPLAY



(b) DESC - 1 score

Score: 1 Time: 2 mts

Learning Outcomes

- Perform operations using DDL commands like CREATE, ALTER, DROP (9.7).
- The command to eliminate the table CUSTOMER from a database is: O. 9
 - a) REMOVE TABLE CUSTOMER b) DROP TABLE CUSTOMER
 - c) DELETE TABLE CUSTOMER d) UPDATE TABLE CUSTOMER



Scoring Indicators

(b) DROP TABLE CUSTOMER - 1 score

Score: 1

Time: 2 mts

Learning Outcomes

- Perform operations using DDL commands like CREATE, ALTER, DROP (9.7).
- Q. 10 Which SQL command is used to open a database?
 - (a) OPEN

(b) **SHOW**

(c) USE

CREATE (d)



Scoring Indicators

(c) USE

Score: 1

Time: 2 mts

Learning Outcomes

- Use DML commands like SELECT, INSERT, UPDATE, DELETE for data manipulation (9.8).
- Q. 11 Assume that CUSTOMER is a table with columns Cust_code, Cust_name, Mob_No and Email. Write an SQL statement to add the details of a customer who has no e-mail id.



Scoring Indicators

Command part $-\frac{1}{2}$ score, Clause part $-\frac{1}{2}$ score, Concept of NULL and other values – 1 score

Score: 2

Time: 4 mts

- Use DML commands like SELECT, INSERT, UPDATE, DELETE for data manipulation
- Q. 12 Find the correct clause from the 2nd column for each SQL command in the 1st column

| Command | | Clause | |
|---------|--------|--------|------|
| 1. | INSERT | a. | SET |
| 2. | SELECT | b. | FROM |
| 3. | UPDATE | c. | INTO |
| 4. | ALTER | d. | ADD |



Scoring Indicators

½ score for each correct match

Score: 2

Time: 4 mts

Learning Outcomes

- Use DML commands like SELECT, INSERT, UPDATE, DELETE for data manipulation (9.8).
- Q. 13 Identify the errors in the following SQL statement and give reason for the error.

SELECT FROM STUDENT ORDER BY Group WHERE Marks above 50;



Scoring Indicators

Identifying 4 errors and giving reason for each $-4 \times \frac{1}{2} = 2$ score. (Group is a keyword)

Score: 2

Time: 5 mts

Learning Outcomes

- Use DML commands like SELECT, INSERT, UPDATE, DELETE for data manipulation (9.8).
- Q. 14 Which is the keyword used with SELECT command to avoid duplication of rows in the selection?



Scoring Indicators

DISTINCT

Score: 1 Time: 2 mts

- Use DML commands like SELECT, INSERT, UPDATE, DELETE for data manipulation. Identify various clauses associated with SQL commands and their purpose (9.8, 9.9).
- Q. 15 Which of the following is the correct order in the usage of SELECT command in SQL?
 - (a) SELECT, FROM, ORDER BY, WHERE
 - (b) SELECT, WHERE, FROM, ORDER BY
 - SELECT, FROM, WHERE, ORDER BY (C)
 - SELECT, ORDER BY, FROM, WHERE (d)

Scoring Indicators

(c) SELECT, FROM, WHERE, ORDER BY

Score: 1

Time: 2 mts

Learning Outcomes

- Use DML commands like SELECT, INSERT, UPDATE, DELETE for data manipulation. Identify various clauses associated with SQL commands and their purpose (9.8, 9.9).
- Q. 16 Read the following SQL statements:
 - SELECT * FROM STUDENT WHERE Marks>=80 AND Marks<=89; (a)
 - SELECT * FROM STUDENT (b)

WHERE Batch='Science' OR Batch='Commerce';

Now, rewrite these statements by replacing the relational and logical operators with some other operators to get the same output.



Scoring Indicators

Use of BETWEEN...AND and IN operators - 1score each

Score: 2

Time: 4 mts

Learning Outcomes

- Identify various clauses associated with SQL commands and their purpose (9.9).
- Q. 17 Pick odd one out and write reason:
 - WHERE (a)

(b) ORDER BY

UPDATE

(d) GROUP BY



(c) UPDATE $-\frac{1}{2}$ score; It is a command, others are clauses $-\frac{1}{2}$ score

Score: 1

Time: 2 mts

Learning Outcomes

- Identify various clauses associated with SQL commands and their purpose (9.9).
- Q. 18 Which of the following clause is not used with SELECT command in SQL?
 - (a) GROUP BY
- (b) WHERE
- (c) SET
- (d) ORDER BY



Scoring Indicators

(c) SET

Score: 1 Time: 2 mts

Learning Outcomes

- Identify various clauses associated with SQL commands and their purpose (9.9).
- Q. 19 Suppose a column named *Fee* does not contain any value for some records in the table named STUDENT. Write SQL statement to fill these blanks with 1000.



Scoring Indicators

Proper use of Update command – 1 score, Concept of IS NULL operator – 1 score

Score: 2

Time: 3 mts

- Use DML commands like SELECT, INSERT, UPDATE, DELETE for data manipulation. Identify various clauses associated with SQL commands and their purpose, Use operators for setting different conditions (9.8, 9.9, 9.10).
- Q. 20 Consider the table ITEMS.

| Item_ | Name | Category | Unit_Price | Sales_Price |
|-------|----------|------------|------------|-------------|
| Code | | | | |
| 0001 | Pencil | Stationery | 5.00 | 8.00 |
| 0002 | Pen | Stationery | 8.00 | 10.00 |
| 0003 | Notebook | Stationery | 10.00 | 20.00 |
| 0004 | Chappal | Footwear | 50.00 | 70.00 |
| 0005 | Apple | Fruits | 60.00 | 90.00 |
| 0006 | Orange | Fruits | 40.00 | 60.00 |
| 0007 | Pen | Stationery | 10.00 | 9.00 |

Predict the output of the following queries.

- SELECT ITEMCODE, NAME FROM ITEMS WHERE CATEGORY = 'Stationery';
- b) SELECT * FROM ITEMS WHERE SALES_PRICE < UNIT_PRICE;
- c) SELECT CATEGORY, COUNT(*) FROM ITEMS GROUP BY CAT-EGORY;



Correct output

Score: 3 Time: 6 mts

Learning Outcomes

- Use operators for setting different conditions (9.10).
- _____ operator in SQL is used with wildcard characters for selec-Q. 21 tion of records.
 - a) LIKE
- b) IN
- c) NOT IN
- d) IN and NOT IN



Scoring Indicators

(a) LIKE

Score: 1 Time: 2 mts

Learning Outcomes

- Explain the effect of different constraints, List different aggregate functions and their usage (9.6, 9.11).
- Q. 22 Classify the following SQL elements into two and give proper title for each category.

NOT NULL, AVG, COUNT, CHECK, SUM, DEFAULT



Scoring Indicators

Constraints and aggregate functions $-\frac{1}{2} + \frac{1}{2} = 1$ score; Proper grouping -1 score

Score: 3

Time: 2 mts



TRENDS AND ISSUES IN ICT

Learning Outcomes

- 11.1, Identifies the various mobile computing technologies.
- Define Mobile computing.



Correct definition

Time: 4 mts

Score: 2

Learning Outcomes

- 11.2, Explains generations in mobile communication.
- Q. 2 Match the following.

| | A | | В |
|----|-----|------|---|
| a. | 1 G | i. | LTE (Long Term Evolution) |
| b. | 2 G | ii. | GSM & CDMA |
| c. | 3 G | iii. | Analog system which support only voice facility |
| d. | 4 G | iv. | WCDMA |

Scoring Indicators

| 1 G | Analog system which support only voice facility |
|-----|---|
| 2 G | GSM & CDMA |
| 3 G | WCDMA |
| 4 G | LTE (Long Term Evolution) |

(Each correct answer ½ Score)

Score: 2 Time: 4 mts

Learning Outcomes

- 11.2, Explains generations in mobile communication.
- Expand the term GPRS.



General Packet Radio Services

Score: 1

Time: 2 mts

- 11.2, Explains generations in mobile communication.
- O. 4 "2G networks introduced data services for the mobile. Two popular standards of 2G systems are GSM and CDMA."
 - A. Expand CDMA.
 - Discuss the different technologies that are used to enhance data communication features of GSM.



Scoring Indicators

- A. Code Division Multiple Access Mark 1
- B. GPRS and EDGE Name only ½ mark each, with explanation 1 mark each

Score: 3

Time: 6 mts

Learning Outcomes

- 11.2, Explains generations in mobile communication.
- Discuss various generations of mobile communication.



A Scoring Indicators

Any two valid points about 1, 2, 3, 4, 5 generations 1 mark each. Just name only ½ mark each

Score: 5

Time: 10 mts

Learning Outcomes

- 11.3. Uses mobile communication services.
- SMS messages are exchanged using the protocol called _____.



A Scoring Indicators

SS7 (Signaling System No. 7)

Score: 1

Time: 2 mts

- 11.4, Recognises the features of mobile operating system.
- Pick the odd one out and justify your answer.
 - Α. **SMS**
 - B. **MMS**
 - C. **GPS**
 - D. Android



Android. Correct justification.

Score: 2 Time: 4 mts

Learning Outcomes

- 11.2, Explains generations in mobile communication.
- O. 8 "Mobile communication offers many services apart from the basic voice calling facility"
 - Name the service which helps to locate a geographical position anywhere on the earth.
 - B. Differentiate SMS and MMS.



A Scoring Indicators

- A. GPS Score 1
- B. Any two difference/Definitions of each 1 score each

Score: 3 Time: 2 mts

Learning Outcomes

- 11.2, Explains generations in mobile communication.
- Q. 9 Which among the following statements is wrong in relation with 2G network?
 - A. It support MMS.
 - B. It can provide only voice Service.
 - C. GSM and CDMA are two popular standards introduced in 2G.
 - D. 2G Network were later expanded to include GPRS and EDGE.



Scoring Indicators

В

Score: 1

Time: 2 mts

Learning Outcomes

- 11.3, Uses mobile communication services.
- Q. 10 Write a short note on GPS.



A Scoring Indicators

Any two valid points

Score: 2

Time: 4 mts

- 11.4, Recognises the features of mobile operating system.
- Q. 11 Pick the odd one out.
 - A. Windows
 - B. Android
 - C. IOS
 - D. Linux



Scoring Indicators

D. Linux

Score: 1 Time: 2 mts

Learning Outcomes

- 11.4, Recognises the features of mobile operating system.
- O. 12 Write a short note on Android OS.



Scoring Indicators

Any two points

Score: 2

Time: 4 mts

Learning Outcomes

- 11.10, Explains cyber laws and ethics.
- Q. 13 "In some of the states ration cards have been replaced by smart cards" What is a smart card? List any two advantages of replacing ration card using smart cards?



A Scoring Indicators

Definition of smart card - 2 Score Any two advantages - 2 Score

Score: 4

Time: 8 mts

- 11.5, Discovers the features of Android operating system.
- Q. 14 Business firms have started watching the conversation and opinions posted in social media. Why?



Importance of customer feedback, opinions, suggestions etc. Any two valid points 1 score each

Score: 2

Time: 4 mts

Learning Outcomes

- 11.5, Discovers the features of Android operating system.
- Q. 15 "The following is a figure of a tag which helps in business logistics"
 - A. Name the tag shown in the figure.
 - В. How it helps business logistics?





Scoring Indicators

- A. RFID tag-score 1
- B. Any two advantages of using RFID-1 Score each

Score: 3 Time: 6 mts

Learning Outcomes

- 11.6, Applies ICT in business.
- Q. 16 "IPR (Intellectual Property Right) encourages innovation" Justify.



Scoring Indicators

It enables to earn recognition, financial benefit, can sell the innovation etc. It motivates further innovation - any 3 points 1 score each.

OR

Just definition of IPR - score 1

Score: 3 Time: 6 mts

Learning Outcomes

- 11.4, Recognises the features of mobile operating system.
- Q. 17 Write a short note on
 - A. Trade mark
 - B. Industrial design



Scoring Indicators

Definition of each term 2 score each

Score: 4 Time: 8 mts

- 11.6, Applies ICT in business.
- Q. 18 Compare patent and Trade mark.

A Scoring Indicators

Definition of each term 2 score each

Score: 4 Time: 8 mts

Learning Outcomes

- 11.6, Applies ICT in business.
- Q. 19 _____ refers to the exclusive right given to a person over the creation of his/ her mind for a period of time.



A Scoring Indicators

Patent/Intellectual Property Right

Score: 1

Time: 2 mts

Learning Outcomes

- 11.6, Applies ICT in business.
- Q. 20 Write a short note on intellectual property theft.



Scoring Indicators

Any two valid points

Score: 2

Time: 4 mts

Learning Outcomes

- 11.7, Lists and explains various intellectual property rights.
- Q. 21 What is cyberspace?



Scoring Indicators

Any two valid points

Score: 2

Time: 4 mts

- 11.8, Explains cyber space.
- Q. 22 "Due to anonymous nature of Internet it is possible for the people to engage in variety of criminal activities. "Justify the statement with special reference to cyber crimes taking place against Individual.



Explanation of any five cyber crimes against individuals such as Identity theft, Harassment, Impersonation and cheating, violation of privacy, Dissemination of obscene material ... each term 1 score each

> Score: 5 Time: 5 mts

Learning Outcomes

- 11.9, Distinguishes different types of cyber crimes.
- Q. 23 Which among the following are considered as violation to privacy?
 - 1) Keeping hidden cameras in private places
 - 2) Publishing private photos of individual in social media without their permission
 - Use of unauthorized software 3)
 - Using simple password
 - All the above are correct Α.
 - В. 1, 2 and 3 only
 - C. 1 and 4 only
 - D. 1 and 2 only



Scoring Indicators

D. 1 and 2 only

Score: 1 Time: 2 mts

Learning Outcomes

- 11.10, Explains cyber laws and ethics.
- Q. 24 Write a short note on the importance of IT Act 2000.



Scoring Indicators

Any three valid points. Each 1 Score

Score: 3 Time: 6 mts

Learning Outcomes

- 11.11, Scope of cyber forensics.
- Q. 25 "Infomania affects peoples' lives and their loved ones" Justify.



Scoring Indicators

Definition of infomania 1 score, any two affects on individual 2 score

Score: 3

Time: 6 mts