



BK BIRLA CENTRE FOR EDUCATION
SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY| CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL
MID-TERM EXAMINATION 2023-24
INFORMATION TECHNOLOGY - 402



Class : X
Date : 21-10-2023
Admission No.:

Duration : 2 Hours
Max. Marks : 50
Roll No.:

MARKING SCHEME

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 20 questions in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. All questions of a particular section must be attempted in the correct order.
5. SECTION A - OBJECTIVE TYPE QUESTIONS (20 MARKS):
 - i. This section has 04 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
6. SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):
 - i. This section has 16 questions.
 - ii. A candidate has to do 12 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Q.(1) Answer any 5 questions out of the given 6 questions on Digital Documentation. (1 x 5 = 5 marks)

- (i) (a) Template
- (ii) (c) Insert tab
- (iii) (b) Insert address block
- (iv) (a) Arrangement
- (v) (c) Crop
- (vi) (b) Mail Merge

Q.(2) Answer any 5 questions out of the given 6 questions on Electronic Spreadsheet. (1 x 5 = 5 marks)

- (i) (c) Solver
- (ii) (c) <Sheet name>.<Cell reference>
- (iii) (a) =(Equal to)
- (iv) (a) Values
- (v) (c) Tools>protect Document
- (vi) (a) In file, /// is used while in hyperlink // is used.

Q.(3) Answer any 5 questions out of the given 6 questions on Database Management System.

(1 x 5 = 5 marks)

- (i) (a) Boolean
- (ii) (a) Any number of characters
- (iii) (c) Datum
- (iv) (b) RDBMS
- (v) (b) Back-ends
- (vi) (b) TCL

Q.(4) Answer any 5 questions out of the given 6 questions on Web Application and Security.

(1 x 5 = 5 marks)

- (i) (b) Auditory
- (ii) (b) Protocol
- (iii) (a) Bandwidth
- (iv) (c) Firewall
- (v) (c) IRCTC
- (vi) (b) Cash on delivery

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 6 out of the given 8 questions.

(2 x 6 = 12 marks)

Q.(5) Differentiate between Keep Scale and Keep image size options while cropping an image in a document.

Ans. :

Keep Scale	Keep Image
When keep scale is selected, cropping the image does not change the scale of the picture.	When keep image is selected, cropping produces enlargement, shrinking or distortion of the image so that the image size remains constant.
When keep scale is selected, size of the image is changes.	When keep image is selected, size of the image does not changes.

Q.(6) How can you group and ungroup different drawing objects in a document ? Explain.

Ans. : Group : select the object with the help of Shift key

Choose Format>Group>Group OR right click and choose Group from context menu

Ungroup : Click on selected object

Choose Format>Group>Ungroup

Q.(7) What is a macro ? What are the rules for naming of libraries, modules and macro names ?

Ans. : A macro is a saved sequence of commands or keystrokes that are stored for later use. It is very flexible, allowing automation of both simple and complex tasks. Although Calc finds and calls macros as normal functions, they do not really behave as built in functions. Rules :

Begin with a letter.

Not contains spaces

Not contains special characters, accents included, except for (_) underscore

Q.(8) What do you mean by Hyperlinks in Spreadsheets ? Explain two different types of Hyperlinks that can be used in Spreadsheets ?

Ans. : Hyperlinks can be used in Calc to jump to a different location from within a spreadsheet and can lead to other parts of the current file, to different files or even to websites.

Relative Hyperlink	Absolute Hyperlink
A relative link will stop working only if the start and target locations change relative to each other.	A absolute link will stop working only if the target is moved.
A relative hyperlink is hyperlink that contains an address that is relative to the address of the destination file.	An absolute hyperlink is a hyperlink that contains the full address of the destination file of the website.
In relative hyperlink, the files should be in the same order.	In absolute hyperlink, the files can be stored anywhere in the system.

Q.(9) What is referential integrity ? Explain various relationship that can be created between two tables in a database.

Ans. : Referential integrity refers to the relationship between tables. Because each table in a database must have a primary key, this primary key can appear in other tables because of its relationship to data within those tables. When a primary key from one table appears in another table, it is called a foreign key. It means the reference from a row in one table to another table must be valid. It requires that a foreign key must have a matching primary key or it must be null.

There are three types of relationships which can be created in tables :

- (a) 1:1 (one to one) : : In this relationship, both the tables must have primary key columns. Eg. Roll number to address
- (b) 1:n (one to many) : In this relationship, one of the tables must have primary key column. It signifies that one column of primary key table is associated with all the columns of associated table. Eg. Student to subjects/teachers
- (c) m:n (many to many) : In this relationship, one of the tables must have primary key column. It signifies that all the columns of primary key table is associated with one column of associated table. Eg. Student and class teacher

Q.(10) Define reports. What are its types in database ? Explain.

Ans. : Reports provide information found in the database in a useful way. It is generated from the database's tables or queries.

Static Report : It contain the data in the selected field at the time the report was created.

Dynamic Report : It can be pdated to show the latest data.

Q.(11) What is Internet Service Provider ? Give any two examples.

Ans. : The term "internet service provider (ISP)" refers to a company that provides access to the internet to both personal and business customers. ISPs make it possible for their customers to surf the web, shop online, conduct business, and connect with family and friends—all for a fee. Eg.: BSNL, MTNL, JIO, AIRTEL

Q.(12) Explain different types of switching techniques.

Ans. : **Circuit switching** : In this technique, an end to end path is created before sending the data (dedicated channel, circuit). The data is transferred using physical connection which is set up between sender and receiver.

Message switching : It is based on the transfer of block of messages from sender to receiver.

Packet switching : In this, a message is broken into packets of fixed size. Each packet has header that contains source and destination addresses information, acknowledgement and error bits.

Answer any 6 out of the given 8 questions.

(3 x 6 = 18 marks)

Q.(13) What is a style ? Explain two different types of styles which can be provided in a Writer.

Ans. : It is a combination of font effects, colours and background such that it can be saved and applied whenever needed into the writer document. Writer come with predefined styles for all document types. It has five style categories :

(i) Paragraph style : It affect entire paragraphs represented with those styles.

(ii) Character styles : It affect a block of text inside a paragraph.

(iii) Frame style : It affect frames and graphics

(iv) Page styles : It affect page formatting (page size, margin and link)

(v) List styles : It affect outlines, numbered lists and bulleted lists.

Q.(14) Explain all the steps of Mail Merge Process in detail.

Ans. :

Select starting document : It create starting document. It has several options like current document, new document, existing document or from a template.

Select document type : It can produce letters or email messages. We here produce a letter. Select letter and click on Next.

Insert address block : It is the most complex steps. Select the address block to use in the document by clicking on Select Address List.

Create salutation : It is possible to create just about any salutation you want in this step. Select This document should contain a salutation to enable the General Salutation list box.

Adjust layout : In it, you can adjust the position of the address block and salutation on the page. You can place the address block anywhere on the page.

Edit document and insert extra fields : In this step, you have another opportunity to exclude particular recipients from the mail merge.

Q.(15) What is cell referencing ? Explain different types of cell referencing used in spreadsheet. Give examples also.

Ans. : The cell addresses in a formula are known as cell referencing. It means how a cell address behaves in the formulae when it is copied from one cell to the other.

Relative cell referencing : It is normal cell address like A1, C3. In this, the formulae in the copied cell changes according to the change in the position of the cell pointer. Eg.: =B3*C3

Absolute cell referencing : It is specified by using \$ sign along with the column and the row number in the cell. Eg. \$B\$4.

Mixed cell referencing : It is when one part of the cell address is relative and the other is absolute. So, either the column or the row number should have a \$ along with it. Eg.: \$B3

Q.(16) Anshita is preparing spreadsheet notes for her term exam. Help her to write short note on the following :

(a) Subtotals : The subtotal feature in spreadsheet helps to use statistical functions (sum, average, count, min, max, product) on the group of data repeatedly in one column. It helps to manage, analyse and extract specific information from the data.

(b) Consolidating data : We can summarise data from multiple worksheets into one worksheet or master worksheet. The consolidated worksheet can be in the same workbook or can be on another workbook. If you have consolidated it, you can update one or more workbook, the updating will automatically be reflected in the consolidated workbook.

(c) Goal seek : It is a wonderful feature in spreadsheet that allows a user to use the desired result of a formula to find the possible input value necessary to achieve that result.

Q.(17) Your friend's father owns a restaurant. He manually enters the Customers' records in a register. You want to explain to him the importance of creating a database in computer. Tell the advantages of using computerized database with the help of the following points :

Ans. : **(a) Data redundancy** : It means duplication of data. It avoids duplication of data and ensures that there is only one instance of certain data.

(b) Data inconsistency : It helps to avoid data inconsistency. It means if a single database is used by multiple users then it also ensures that the same data is present for all the users.

(c) Confidentiality : The DBMS can ensure different views for the different users of the database. This keeps the confidentiality of the data safe.

Q.(18) Write SQL commands for the following on the basis of given table :

Table : Employees

Employee ID	Name	Gender	Salary
A24092	Bharat Kumar	Male	25800
B23076	Ashish Koorella	Male	24900
B24017	Kevin Caesar	Male	32000
A23094	Krunal Prabhat	Male	35300
C221	Shabhya Jain	Female	32500
B22001	Rinki Mishra	Female	34000

Write SQL commands for :

Ans. :

(a) Select * from Employees;

(b) Select Name, Gender from Employees where Salary>30000;

(c) Select Name from Employees where Name like "%ar%";

Q.(19) Explain different types of computer networks.

Ans. :

PAN : It is a computer network used for communication among various electronic devices such as PCs, mobiles in a close proximity. Its area is typically a few metres.

LAN : It is the one which connects computers and devices in a limited area such as home, school,, office or any closely placed group of buildings. It provides very high speed. It is used for connecting computers and peripherals such as printers, scanners.

CAN : A CAN is a computer network made of an inter connection of two or more LANs within a limited area. This type of network is larger than a LAN but smaller than a WAN.

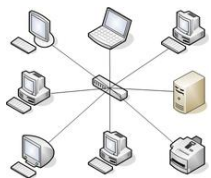
MAN : A MAN is a computer network in which two or more computers which are geographically distributed but in the same metropolitan city.

WAN : It is the one which covers a broad area. It consists of two or more local area networks. A WAN s used by government organisations and businesses. It connects LAN an MAN together. Eg.: Internet

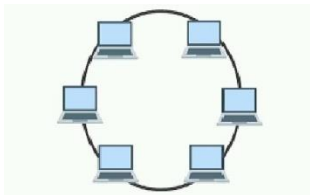
Q.(20) Explain different types of network layouts with diagram.

Ans. : The arrangement of selected nodes (computers) in a communicating network is called Network Layout. It refers to the topology of a network.

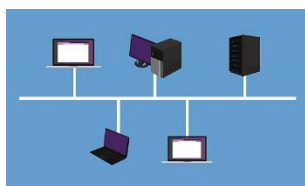
Star topology : In this, all the nodes are connected to a central system called switch. Which forwards data towards its final destination.



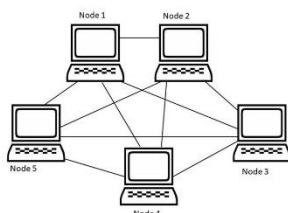
Ring topology : In this, the nodes are connected in a closed loop so that each device is connected to two other devices, one on either side. The computers in a ring topology are connected in the shape of closed ring.



Bus topology : In this, all the nodes are connected to a central cable called bus. A bus is a single continuous cable. Trannsmision from any node travels the length of the bus in both directions and can be received by all the other nodes in the network.



Mesh topology : In this, all the nodes are interconnected with one another which allows each nodes to have a direct connection with all other nodes in the network.



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