St. Joseph's College of Pharmacy

Dharmagiri College Campus

CHERTHALA

BACHELOR OF PHARMACY

SEMESTER-II

PRACTICAL RECORD OF

COMPUTER APPLICATIONS IN PHARMACY

Name : …………………………………………….

Roll No.: ………………………………………….

Reg. No.: ……………………………………….…

Certified that this is a Bonafide Record of the practical work done by the candidate during the period ………………….. with Reg. No………………………..

VALUED BY

Faculty in-charge

Date : …………….

1. Questionnaire using word processing package to gather information about Diabetes Mellitus

Aim:

To design a questionnaire using word processing package to gather information about a particular disease.

Questionnaire:

A set of printed or written questions with a choice of answers, devised for the purposes of a survey or statistical study.

Word Processor – Microsoft Word :

Microsoft Word is a word processor developed by Microsoft. It was first released on October 25, 1983. It is a graphical word processing program that users can type with. The purpose of the MS Word is to allow the users to type and save documents. It's the most popular word processing program in the world.MS Word program is primarily used for creating documents such as letters, brochures, learning activities, tests, quizzes and students' homework assignments.

Diabetes Mellitus:

Diabetes mellitus (DM), commonly referred to as diabetes, is a group of metabolic disorders in which there are high blood sugar levels over a prolonged period.Symptoms of high blood sugar include frequent urination, increased thirst, and increased hunger. If left untreated, diabetes can cause many complications. Acute complications can include diabetic ketoacidosis, hyperosmolar hyperglycaemic state, or death. Serious long-term complications include cardiovascular disease, stroke, chronic kidney disease, foot ulcers, and damage to the eyes.

Procedure:

1. Open new word document.

2. Choose Page Layout > Set the page size to A4 size.

3. Choose Margins > Custom Margins> Set the margins to left - 1.5 inches, top, bottom and right to 1 inch.

4. Type the heading "TOOL TO ASSESS KNOWLEDGE REGARDING DIABETES MELLITUS"

5. Type the questions with multiple choice responses as follows. Insert the check boxes from Insert > Shapes :

1. Have you heard about Diabetes Mellitus?

    a) Yes ☐   b) No ☐

2. Do any of your family members or relative have/had diabetes?

    a) Yes ☐   b) No ☐

3. As per your knowledge what causes diabetes?

    a) Contact with another diabetic patient   ☐

    b) Eating more sugar   ☐

    c) Lack/defect of insulin   ☐

    d) Destiny   ☐

    e) Don't Know   ☐

4. Which age groups are most commonly affected by diabetes?

    a) Children and adolescents   ☐

    b) Young adults and middle aged   ☐

    c) Middle aged and elderly   ☐

    d) Others (specify)   ☐

    e) Don't Know   ☐

5. Which sexes are affected by diabetes?

    a) Males only   ☐

    b) Females only   ☐

    c) Both   ☐

    d) Don't Know   ☐

6. What is the course of this disease?

      a) Cures by itself ☐

      b) Short, cured with treatment ☐

      c) Lifelong, controlled with treatment ☐

      d) Others (specify) ☐

      e) Don't Know ☐

7. Which of the following best characterizes the disease condition?

      a) High blood sugar ☐

      b) High urine sugar ☐

      c) Low blood sugar ☐

      d) Low urine sugar ☐

      e) Don't Know ☐

8. What do you think are the most common symptoms of diabetes mellitus?
  (Multiple responses possible)

      a) Frequent urination ☐

      b) Frequent hunger ☐

      c) Frequent thirst ☐

      d) Asymptomatic ☐

      e) Others (specify) ☐

      f) Don't Know ☐

9. What are the common complications resulting from diabetes mellitus?

   (Multiple responses possible)

   a) Heart disease ☐

   b) Kidney disease ☐

   c) Eye disease ☐

   d) Stroke ☐

   e) Foot problems ☐

   f) Death ☐

   e) Others (specify) ☐

   f) Don't Know ☐

10. What are the methods of treatment in this disease?

    (Multiple responses possible)

    a) Drugs ☐

    b) Insulin ☐

    c) Healthy diet ☐

    d) Regular exercise ☐

    e) Weight control ☐

    f) Quit smoking ☐

    e) Others (specify) ☐

    f) Don't Know ☐

Save the document under the name "Knowledge Questionnaire".

TOOL TO ASSESS KNOWLEDGE REGARDING DIABETES MELLITUS

1. Have you heard about Diabetes Mellitus?
   a) Yes ☐   b) No ☐

2. Do any of your family members or relative have/had diabetes?
   a) Yes ☐   b) No ☐

3. As per your knowledge what causes diabetes?
   a) Contact with another diabetic patient ☐
   b) Eating more sugar ☐
   c) Lack/defect of insulin ☐
   d) Destiny ☐
   e) Don't Know ☐

4. Which age groups are most commonly affected by diabetes?
   a) Children and adolescents ☐
   b) Young adults and middle aged ☐
   c) Middle aged and elderly ☐
   d) Others (specify) ☐
   e) Don't Know ☐

5. Which sexes are affected by diabetes?
   a) Males only ☐
   b) Females only ☐
   c) Both ☐
   d) Don't Know ☐

6. What is the course of this disease?
   a) Cures by itself ☐
   b) Short, cured with treatment ☐
   c) Lifelong, controlled with treatment ☐
   d) Others (specify) ☐
   e) Don't Know ☐

7. Which of the following best characterizes the disease condition?
   a) High blood sugar ☐
   b) High urine sugar ☐
   c) Low blood sugar ☐
   d) Low urine sugar ☐
   e) Don't Know ☐

8. What do you think are the most common symptoms of diabetes mellitus? (multiple responses possible)
   a) Frequent urination ☐
   b) Frequent hunger ☐
   c) Frequent thirst ☐
   d) Asymptomatic ☐
   e) Others (specify) ☐
   f) Don't Know ☐

9. What are the common complications resulting from diabetes mellitus? (Multiple responses possible)
   a) Heart disease ☐
   b) Kidney disease ☐
   c) Eye disease ☐
   d) Stroke ☐
   e) Foot problems ☐
   f) Death ☐
   e) Others (specify) ☐
   f) Don't Know ☐

10. What are the methods of treatment in this disease? (Multiple responses possible)
   a) Drugs ☐
   b) Insulin ☐
   c) Healthy diet ☐
   d) Regular exercise ☐
   e) Weight control ☐
   f) Quit smoking ☐
   e) Others (specify) ☐
   f) Don't Know ☐

2. HTML web page showing personal information

Aim:

To create a HTML web page to show personal information.

HTML:

Hyper Text Markup Language. It is the standard markup language for creating web pages and web applications for the World Wide Web. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. Generally the coding is done with the help of Notepad. HTML elements are described by tags, written using angle brackets (< >). Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML Editor - Notepad :

An HTML editor is a computer program for editing HTML, the markup of a webpage. Web pages can be created and modified by using professional HTML editors. But, for learning HTML, a simple text editor like Notepad is recommended.

Web page :

A web page is a document that is suitable for the World Wide Web and web browsers. A web browser displays a web page on a monitor or mobile device. The web page usually means what is visible, but the term may also refer to a computer file, usually written in HTML.

Web browser :

A web browser (commonly referred to as a browser) is a software application for accessing information on the World Wide Web. Each individual web page, image, and video is identified by a distinct URL, enabling browsers to retrieve and display them on the user's device.

Procedure:

1. Open new notepad document (Start > Programs > Accessories > Notepad)

2. Type the following HTML code:

```html
<html>

<body bgcolor=#F9F2C3>

<center>

<h1><u>

BIODATA

</h1></u>

<br>

<table width=60% border=2 bordercolor=blue cellpadding=3 cellspacing=3>

<tr><td>Name</td><td>Student_Name</td></tr>

<tr><td>Address</td>

<td> St. Joseph's College of Pharmacy<br>

Dharmagiri College Campus<br>

Cherthala</td></tr>

<tr><td>Date of Birth</td><td>20/02/2000</td></tr>

<tr><td>Father's Name</td><td>Student_Parent</td></tr>

<tr><td>Contact Number</td><td>9845000000</td></tr>

<tr><td>E-mail</td><td>Student@gmail.com</td></tr>

<tr><td>Education</td><td>Student_BPharm</td></tr>

<tr><td>Hobbies</td><td>Painting, gardening, music</td></tr>

</table>

<br><br>

I hereby declare that all the statements mentioned above are

true to the best of my knowledge and belief

<br><br>

       
```


Signature

Student_Name

</centre>

</body>

</html>

3. Save the notepad file, name the file "biodata.html"

4. Open the output file in any of the browsers.

BIODATA

Name	Student_Name
Address	St. Joseph's College of Pharmacy Dharmagiri College Campus Cherthala
Date of Birth	20/02/2000
Father's Name	Student_Parent
Contact Number	9845000000
E-mail	Student@gmail.com
Education	Student_BPharm
Hobbies	Painting, gardening, music

I hereby declare that all the statements mentioned above are true to the best of my knowledge and belief

Signature

Student_Name

3. Retrieve the information of a drug and its adverse effects using online tools

Aim:

To generate information of a drug and its adverse effects using online tools

Drugs:

Lovastatin, Paracetamol, AMIKACIN

4. Creating mailing labels Using Label Wizard, generating label in MS WORD

Aim:

Using mail merge to create mail recipients and generate labels for the address list generated.

Mail Merge:

Mail merge is a process to create personalized letters and pre-addressed envelopes or mailing labels for mass mailings from a form letter. The feature is usually employed in a word processing document which contains fixed text and variables which act as placeholders that are replaced by text from the data source. The data source is typically a spread sheet or a database which has a field or column for each variable in the template. When the mail merge process is run, the word processing system creates an output document for each row in the database, using the fixed text exactly as it appears.

Labels:

Word has a great tool for printing a sheet of labels. You can create just about any type with Word's built-in database of label sheet layouts or even go beyond that to design your own. If you have some information that regularly need on a label, we can use Labels in MS Word.

Procedure:

1. Open new Word document, **File > New > Blank Document**

2. On the **Mailings** tab, **Select Recipients > Type a new list**.

3. Use **Customize columns** to customize your data fields.

4. After customizing and adding relevant address fields, click **OK**.

5. Make the data entry for the fields added and click **OK** and **Save** the Database created. We can use this address database in different documents.

6. On the **Mailings** tab, **Start Mail Merge > Labels**

7. Click **New Label** and **Label Details** dialog box opens.

8. Give a label name, set the margins to zero, Label height: 4 cm and Label width: 6 cm, Number across : 3 ; Number down : 6, set the page size to A4, click **OK.**

9. Click OK in the Label Options dialog box.

10. Now the A4 page layout changes to 3 x 6 labels

11. **Select Recipients > Use Existing List**.....

12. Choose the database of address list created earlier.

13. Now the first label will be blank and the rest of the labels will contain

 <<Next Record>>

14. Place the cursor in the first label

15. On the **Mailings** tab, **Insert Merge Field >** Choose the address fields one by one and place them in the first label.

16. Format the address list fields in the first label into the required size/bold and set the alignment.

17. Click **"Update Labels"**

   Now all the labels will contain the address fields as given below:

«Name»	**«Next Record»«Name»**	**«Next Record»«Name»**
«HName»	«HName»	«HName»
«Place»	«Place»	«Place»
«Phone»	«Phone»	«Phone»
«Next Record»«Name»	**«Next Record»«Name»**	**«Next Record»«Name»**
«HName»	«HName»	«HName»
«Place»	«Place»	«Place»
«Phone»	«Phone»	«Phone»

18. In order to view the different addresses in the list, click **"Preview Results"**.

19. To finalise, Click **Finish & Merge > Edit Individual Documents >** Choose **"All"**, Click **OK**.

Geethu	**Anil**	**Thasni**
Karthika	Vihar	Nalakam
Kothamangalam	Pathanamthitta	Aroor
9847752453	9287245838	9287452456
Pranav	**Tharun**	**Binitha**
Chirayil	Daffodils	Sreenilayam
Aluva	Thrissur	Trivandrum
9847563214	9845245224	7425454566

20. Save the file containing labels.

5. Create a Database in MS Access to store the patient information with the required fields

Aim:

Create a patient database using MS Access.

MS Access:

MS Access, also known as Microsoft Office Access, is a database management system from Microsoft. Software developers and data architects can use Microsoft Access to develop application software. The Database can be built using MS Access and can be used as the back-end of the software like Pharmacy Management, Hospital Management etc. MS Access is supported by Visual Basic for Applications, an object-oriented programming language that can reference a variety of objects including Data Access Objects (DAO). MS Access may also be used as the 'front-end' with other products as the 'back-end' tables, such as Microsoft SQL Server and non-Microsoft products such as Oracle. Access tables support a variety of standard field types.

Database:

A database is an organized collection of data, stored and accessed electronically. It is the systematic collection of data. Databases support storage and manipulation of data. Databases make data management easy. For example, consider the Facebook. It needs to store, manipulate and present data related to members, their friends, member activities, messages, advertisements and lot more.

Pharmacy Drug Database:

Drug databases are sites where information about drugs and medications are stored, and one of the largest (and most commonly used) drug databases is compiled by the Food & Drug Administration (FDA). The FDA is a federal agency that oversees and controls all medications in the U.S., which includes:

o Over-the-counter (OTC) medications

o Prescription medications

o Dietary supplements

o Vaccines

Database Management System (DBMS):

A database management system (DBMS) is system software for creating and managing databases. It is a collection of programs which enables its users to access database, manipulate data, reporting / representation of data. It also helps to control access to the database. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data. A DBMS makes it possible for end users to create, read, update and delete data in a database. The DBMS essentially serves as an interface between the database and end users or application programs, ensuring that data is consistently organized and remains easily accessible.

Procedure:

1. Open MS Access application from the start menu.

2. Select **Blank Database** and click **Create**.

3. Click **View** and select **Design View**. Name the table and save, Click **OK**.

4. Add the **Field Names** and their corresponding **data types** in the **Design View**. Common data types used are

   o AutoNumber - Automatically generates serial number for the database.

   o Text - If the data is in text format (eg: Patient name, house name etc.)

   o Number – If the data is in number format (eg: age, weight etc.)

   o Data/Time – If the data is in date format (eg: Date of admission/discharge etc.)

   The **Primary Key** enables you to specify a field which is to be kept as unique (No duplicate data allowed if you set Primary Key to a field)

   Give the field name and data types as follows:

Field Name	Data Type
Patient_ID	Number
Pt_Name	Text
Age	Number
Gender	Text
Place	Text
Phone/Mobile	Number

Table1

(Note: For the Phone/Mobile field, set the field size from Long integer to Double). Save the table, give a name "Patient_Data".

5. Click **View** and select **Datasheet View**.

6. Fill the data fields with patient information (for at least five patients) and save the table.

7. Save the data base, Click File > Save Database As…

6. Design a form in MS Access to view, add, delete and modify the patient record in the database

Aim:

Create a patient database form using MS Access.

Forms:

A form in Access is a database object that you can use to create a user interface for a database application. Access creates the form and displays it in Layout view. In Layout view, you can make design changes to the form while it is displaying data. For example, you can adjust the size of the text boxes to fit the data, if necessary. You can use a command button on an Access form to start an action or a set of actions. For example, you can create a command button that adds or deletes database items.

Procedure:

1. Open the saved database of the previous practical in MS Access application.

2. Open the table "Patient_Data" in the database.

3. Go to **Create** tab and click "**Form**". You can view the database by clicking the navigation buttons below the form.

4. Save the form under the same name "Patient_Data".

5. Select the form Patient_Data in the shutter bar on the left side and click **View > Design View**. The following will be displayed:
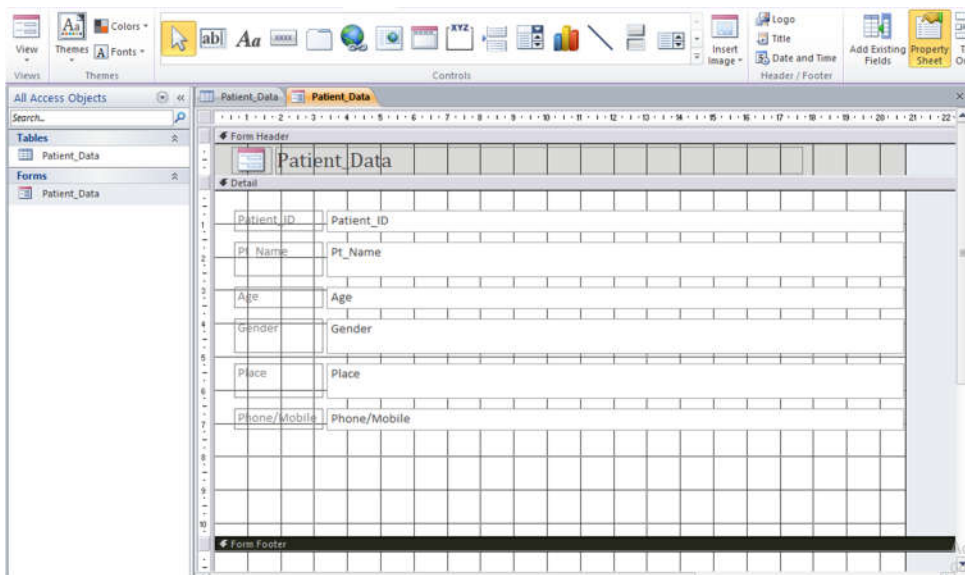
6. Click and add a command button from the **Form Design** tools and place the button below the fields.

7. The **Command Button Wizard** opens. In the categories, select **Record Operations** and in the actions, select **Add New Record**. Click **Next**. Choose Text and type the text you need to appear on the button, type "Add Data" (You can also choose Picture for a button). Click **Next**. Give a meaningful name for the button (eg: cmdAdd, so that the button is used for adding data). Click **Finish**. You can modify the font and colour etc.. for the button.

8. Now add another command button from the **Form Design** tools and place the button below the fields to the right of Add Data button.

9. The **Command Button Wizard** opens. In the categories, select **Record Operations** and in the actions, select **Delete Record**. Click **Next**. Choose Text and type "Delete Data". Click **Next**. Name the button cmdDelete, so that the button is used for deleting data. Click **Finish**. Save the form.

10. Click **View > Form View**.

11. Navigate after the last data (we have entered details of 5 patients in the previous practical) and type in a new data for a sixth patient and click **Add Data** button. The new data will be added to the database as sixth data.

12. Navigate to the first data and click Delete Data button. The corresponding data will be deleted from database. Simultaneously the data will be deleted from table also.

13. Save the table, form and close the database file.

7. Generating report and printing the report from patient database

Aim:

Create a patient database form, generating report and printing the report using MS Access.

Reports:

Reports offer a way to view, format, and summarize the information in your Microsoft Access database. A report consists of information that is pulled from tables or queries, as well as information that is stored with the report design, such as labels, headings, and graphics. The tables or queries that provide the underlying data are also known as the report's record source. If the fields that you want to include all exist in a single table, use that table as the record source.

Just like forms, a report is made up of a variety of different sections. You have the detail section, which is where all of your data lives for the most part. You also will see a page header and a page footer section; these appear at the top and at the bottom of every single page in your report.

Procedure:

1. Open MS Access application from the start menu.

2. Select the database **Patient Data** (data table and form) already created

3. Click **Create** tab and click "**Report**". You can view the report formed from the already created database.

4. Save the report under the same name "Patient_Data".

5. Select the report Patient_Data in the shutter bar on the left side and click **View > Design View**. Make relevant changes (Heading SJCP Hospital Database, font colour of field names to black, background colours) to the colour scheme and headings in the following format displayed:
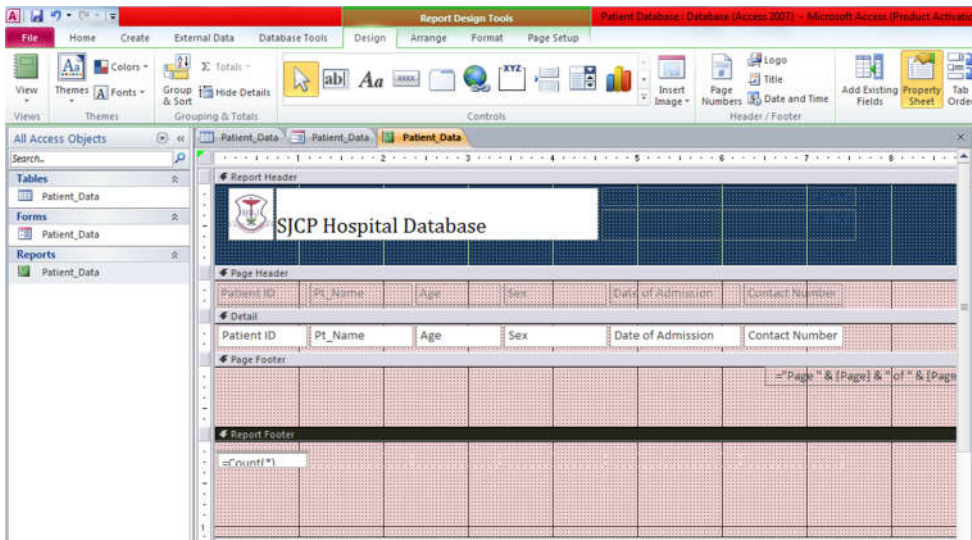
6. Select **"View"** in the Home tab, click "Print Preview". The print preview is displayed and we can use this to print the report generated.