CLASS XII SC.

COMPUTER SC. WITH PYTHON

PRACTICAL FILE QUESTIONS

Practical Date: 06/05/2022

**PFQ01.** Write a python program to read a string and print:

1. No. of alphabet
2. No. of uppercase
3. No. of lowercase
4. No. of digits

**PFQ02.**  Write a python program to accept a dictionary by user containing 10 nos. names and classes as key - value pairs and display the dictionary.

Submission Date: 20/05/2022

Practical Date: 15/07/2022

**PFQ03.**  Write a python function to accept principal, rate and time by the user and find out the Simple Interest and Compound Interest.

**PFQ04.**  Write a python function to calculate the factorial of a given number.

**PFQ05.**  Write a python function that accepts a string and calculate the number of upper case and lower case letters.

**PFQ06.**  Write a python function that checks whether a passed string is palindrome or not.

Submission Date: 29/07/2022

Practical Date: 5/08/2022

**PFQ07.**  Write a python function to count the total number of words in a text file.

**PFQ08.**  Write a python function to read from text file “story.txt” and calculate and display the sum of all the even digits present in the file.

**PFQ09.**  Write a python function to count the number of Upper-Case alphabets in a text file “poem.txt”.

Submission Date: 12/08/2022

Practical Date: 19/08/2022

**PFQ10.**  Write a python program to write and read data from a binary file consisting rollno, name, marks and Append more records in the same file.

**PFQ11.**  Write a python program to write and read data from a binary file consisting rollno, name, marks and Search for a records from the file.

**PFQ12.**  Write a python program to write and read data from a binary file consisting rollno, name, marks and Update a particular record in the file.

Submission Date: 26/08/2022

Practical Date: 02/09/2022

**PFQ13.**  Write a python program to write and read data from a csv file consisting ItemNo, ItemName, Quantity and Price. Write functions to append new records and search for particular record using ItemNo.

**PFQ14.**  Write a Menu Driven program to implement a stack for book – details(BookNo, BookName). Implement PUSH, POP and DISPLAY operations.

Submission Date: 16/09/2022

Practical Date: 28/10/2022

**PFQ15.** Create a table ITEM with Code as the primary key. Decide your own data types. Insert records as shown in the table below and write the queries to perform the following functions on the table.

**Table: ITEM**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Code** | **ItemName** | **Company** | **Qty** | **Price** | **ExpiryDate** |
| 1002 | Cake | Britannia | 45 | 200 | 2013-01-12 |
| 1005 | Biscuit | Britannia | 90 | 100 | 2012-12-12 |
| 1006 | Jam | Kissan | 34 | 160 | 2013-01-23 |
| 1001 | Jelly | Nestle | 23 | 150 | 2012-11-21 |
| 1007 | Sauce | Kissan | 120 | 260 | 2013-02-15 |
| 1003 | Maggi | Nestle | 80 | 100 | 2013-02-10 |
| 1004 | Chocolate | Cadbury | 100 | 200 | 2012-12-27 |

1. Display the details of the items in ascending order of Code.
2. Display Code and ItemName of items that have price in the 170 to 250 range.
3. Display the ItemName and Qty of all the products Expired in 2013.
4. Increase the price of all the items by Rs. 5
5. Display the various company listed in the table.

**PFQ16.** Create a table CLUB with CoachID as the primary key. Decide your own data types. Insert records as shown in the table below and write the queries for the following:

**Table: CLUB**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CoachID** | **CoachName** | **Sports** | **DateOfApp** | **Salary** | **Gender** |
| 1001 | Ravindra | Karate | 1990-03-27 | 12000 | M |
| 1002 | Ambika | Karate | 1998-01-20 | 30000 | F |
| 1003 | Nitin | Squash | 1998-02-19 | 15000 | M |
| 1004 | Rohit | Basketball | 1999-04-23 | 18000 | M |
| 1005 | Mohan | Swimming | 1998-02-24 | 30000 | M |
| 1006 | Saumya | Swimming | 2001-01-22 | 15000 | F |
| 1007 | Garima | Karate | 2010-02-27 | 5600 | F |
| 1008 | Shailja | Basketball | 2010-05-29 | 8500 | F |

1. Display the sum of salaries of the female and the male coaches.
2. Display the maximum and minimum salaries of the Karate coaches.
3. Display the numbers of male and female coaches.
4. Display the details of all coaches whose name end with ‘a’.
5. Display the details of all the coaches associated with sports starting with ‘S’.

**PFQ17.** Create a table PATIENT with Pcode (patient code) as the primary key. Decide your own data types. Insert records as shown in the table and write the outputs for the following:

**Table: PATIENT**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Pcode** | **Name** | **Age** | **Dept** | **DOA** | **Charge** | **Gender** |
| P1 | Karan | 24 | Surgery | 2010-07-07 | 5000 | M |
| P2 | Varun | 45 | Orthopedic | 2010-12-19 | 8000 | M |
| P3 | Ravina | 12 | Orthopedic | 2010-01-15 | 8000 | F |
| P4 | Ankita | 36 | Surgery | 2009-04-16 | 12000 | F |
| P5 | Ketan | 16 | ENT | 2009-07-31 | 25000 | M |
| P6 | Arvind | 29 | ENT | 2010-07-07 | 15000 | M |
| P7 | Zugal | 45 | Cardiology | 2010-10-20 | 14000 | M |

1. SELECT \* FROM PATIENT WHERE AGE < 25 or AGE > 40;
2. SELECT \* FROM PATIENT WHERE DEPT IN (‘ENT’, ‘Surgery’);
3. SELECT MIN(CHARGE), MAX(CHARGE), SUM(CHARGE) FROM PATIENT;
4. SELECT COUNT(\*) FROM PATIENT GROUP BY GENDER;
5. SELECT DEPT, COUNT(\*) FROM PATIENT GROUP BY DEPT;

**PFQ18.** Given the following tables for a database **LIBRARY**:

**Table: BOOKS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Book\_ID** | **Book\_Name** | **Author\_Name** | **Publishers** | **Price** | **Type** | **Quantity** |
| C0001 | Fast Cook | Lata kapoor | EPB | 355 | Cookery | 5 |
| F0001 | The Tears | Willium Hopkins | First Publ. | 650 | Fiction | 20 |
| T0001 | My First C++ | Brain & Brooke | EPB | 350 | Text | 10 |
| T0002 | C++ Brainworks | A.W. Rossaine | TDH | 350 | Text | 15 |
| F0002 | Thunderbolts | Anna Roberts | First Publ. | 750 | Fiction | 50 |

**Table: ISSUED**

|  |  |
| --- | --- |
| **Book\_ID** | **Quantity\_Issued** |
| T0001 | 4 |
| C0001 | 5 |
| F0001 | 2 |

Write SQL queries for (a) to (f):

1. To show Book name, Author name and price of books of EPB Publishers.
2. To list the names from books of Fiction type.
3. To display the names and price of the books in descending order of their price.
4. To increase the price of all books of First Publ. Publishers by 50.
5. To display the Book\_ID, Book\_Name, Quantity\_Issued for all books which have been issued?
6. Tim insert a new row in the table issued having the following data: ‘F0002’, 4.
7. Give the output of the following queries based on the above tables:

* SELECT COUNT(DISTINCT Publishers)FROM BOOKS;
* SELECT SUM(Price) FROM BOOKS WHERE Quantity > 5;
* SELECT Book\_Name, Author\_Name FROM BOOKS WHERE Price < 500;
* SELECT COUNT(\*) FROM BOOKS;

Submission Date: 25/11/2022

Practical Date: 02/12/2022

**PFQ19.** Write a python Program using interface with MySQL to create a database called “AISSCE2023ClassXII” and create a table named “Book” with BookNo, BookName, Price attributes.

**PFQ20.** Write a python Program using interface with MySQL to insert 10 records in “Book” table.

**PFQ21.** Write a python Program using interface with MySQL to update a record based on it’s BookNo.

**PFQ22.** Write a python Program using interface with MySQL to delete a particular record(s) based on condition.

Submission Date: 16/12/2022