

M.L. KHANNA D.A.V PUBLIC SCHOOL

A PROJECT REPORT ON  
**QUESTION BANK**  
FOR CBSE EXAMINATIONS

[AS A PART OF COMPUTER SCIENCE COURSE]

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**SESSION- 2021-2022**

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# CERTIFICATE

This is to certify that Shrey Varshney of Class XII-B, Non-Medical, of M.L. Khanna DAV Public School, has completed his Computer Science Project under my supervision. He has shown utmost sincerity in the completion of this Project.

The Project has fulfilled all the conditions to the best of my knowledge and information. I certify that this Project is up to my expectations and as per the guidelines issued by C.B.S.E.

Signature

Ms P.Deepti  
(H.O.D)

Signature

Ms Monika Mehan  
(Principal)

## ACKNOWLEDGEMENT

This Project is the result of my sincere and dedicated efforts. I indeed had the immense pleasure while preparing this Project. The Project has enabled me to learn about topic 'python mysql connectivity' in detail by doing Research work and gaining deeper knowledge from different sources. It has developed great confidence in me.

I extend my heartfelt gratitude to my SUBJECT teacher Ms P.Deepthi who motivated me for preparing this Project. I am grateful to her for her constructive help, suggestions and guidance.

Further, I would like to thank my beloved parents and Hon'ble Principal Ms Monika Mehan for their blessings, who have been a source of inspiration for me. Also, I am thankful to my dear Classmates who have helped me in making this project successful.

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## INTRODUCTION

A database management system (DBMS) or database system in short, is a software that can be used to create and manage databases. DBMS lets users to create a database, store, manage, update/modify and retrieve data from that database by users or application programs. Some examples of open source and commercial DBMS include MySQL, Oracle, PostgreSQL, SQL Server, Microsoft Access, MongoDB.

The DBMS serves as an interface between the database and end users or application programs. Retrieving data from a database through special type of commands is called querying the database. In addition, users can modify the structure of the database itself through a DBMS.

Databases are widely used in various fields. Some of the examples of its application are in banking, inventory management, online shopping, etc.

In order to efficiently manage data using a DBMS, is necessary to understand certain key terms such as:

- Database Schema: Database Schema is the design of a database. It is the skeleton of the database that represents the structure, the type of data each column can hold, constraints on the data to be stored, and the relationships among the tables.
- Data Constraint: certain restrictions or limitations on the type of data that can be inserted in one or more columns of a table is done by specifying one or more constraints on that column while creating the tables. Some commonly used SQL constraints are NOT NULL, UNIQUE, DEFAULT, PRIMARY KEY, FOREIGN KEY.
- Meta-data or Data Dictionary: The database schema along with various constraints on the data is stored by DBMS in a database catalogue or dictionary, called meta-data. A meta-data is data about the data.

- Database Instance: After loading data, the state or snapshot of the database at any given time is the database instance. The state of database can change, and thus a database schema can have many instances at different times.
- Query: A query is a request to a database for obtaining information in a desired way. Query can be made to get data from one table or from a combination of tables.
- Data Manipulation: Modification of database consists of three operations viz. Insertion, Deletion or Update.
- Database Engine: Database engine is the underlying component or set of programs used by a DBMS to create database and handle various queries for data retrieval and manipulation.

# A Relational Data Model

Different types of DBMS are available and their classification is done based on the underlying data model. A data model describes the structure of the database, including how data are defined and represented, relationships among data, and the constraints. The most commonly used data model is Relational Data Model.

The commonly used terminologies in relational data model are as follows:

- i) ATTRIBUTE: Characteristic or parameters for which data are to be stored in a relation. Simply stated, the columns of a relation are the attributes which are also referred as fields.
- ii) TUPLE: Each row of data in a relation (table) is called a tuple. In a table with n columns, a tuple is a relationship between the n related values.
- iii) DOMAIN: It is a set of values from which an attribute can take a value in each row. Usually, a data type is used to specify domain for an attribute.
- iv) DEGREE: The number of attributes in a relation is called the Degree of the relation.
- v) CARDINALITY: The number of tuples in a relation is called the Cardinality of the relation.

# Theoretical Background

## - MySQL

MySQL is a database management system.

To add, access, and process data stored in a computer database, you need a database management system such as MySQL, Microsoft SQL Server, PostgreSQL, Oracle, etc. that allow us to create a database consisting of relations.

Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

A relational database stores data in separate tables rather than putting all the data in one big storeroom. This adds speed and flexibility.

The SQL part of “MySQL” stands for “Structured Query Language.” SQL is the most common standardized language used to access databases and is defined by the ANSI/ISO SQL Standard.



# System Implementation

## #Hardware used:

- I) Modern Operating System
- II) x86 64-bit CPU
- III) 4 GB RAM

## #Software used:

- i. Python
- ii. Mysql

# OBJECTIVE AND SCOPE

## OF THE PROJECT

Our project has the data related to questions based upon the different topics of different subjects

It shows the questions with the correct answer as well. Moreover, user can choose the desired topic based upon which he/she wants to see the questions. There are also buttons by which new questions can be added to the database.

No project is perfect. Our project can also be improved by addition of more data in it.

# Database Design

Database Design: An important aspect of system design is the design of data storage structure. To begin with a logical model of data structure is developed first. A database is a container object which contains tables, queries, reports and data validation policies enforcement rules or constraints etc. A logical data often represented as records are kept in different tables after reducing anomalies and redundancies. The goodness of data base design lies in the table structure and its relationship.

This software project maintains a database named ques. Here, are the sql queries by which we can see all the names of all the databases already made and use the desired database.

mysql> >SHOW DATABASES;

mysql> >USE database name;

The screenshot shows a terminal window titled "MySQL 8.0 Command Line Client - Unicode". It displays the MySQL monitor interface. The user has entered their password and is now viewing the available databases:

```
mysql> show databases;
+--------------------+
| Database          |
+--------------------+
| compsc            |
| csproject         |
| information_schema|
| mysql             |
| performance_schema|
| dues              |
| sakila            |
| sys               |
| world             |
+--------------------+
9 rows in set (0.06 sec)
```

Then, the user switches to the "ques" database:

```
mysql> use ques;
Database changed
```

**TABLES:** We have created four tables in our database ques to make the software user-friendly and to make it different from others All tables in a database are shown by using a sql query given below.

mysql>SHOW TABLES;

```
MySQL 8.0 Command Line Client - Unicode
YOUR MySQL connection id is 10
Server version: 8.0.25 MySQL Community Server - GPL
Copyright (c) 2000, 2021, oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| compsc |
| esproject |
| information_schema |
| mysql |
| performance_schema |
| ques |
| sysilla |
| sys |
| world |
+-----+
9 rows in set (0.06 sec)

mysql> use ques;
Database changed
mysql> show tables;
+-----+
| Tables_in_ques |
+-----+
| bio |
| chem |
| maths |
| phy |
+-----+
4 rows in set (0.00 sec)

mysql>
```

The command used to see the data structure of the given tables is given below.

**mysql>DESCRIBE TABLE;**

```
MySQL 8.0 Command Line Client - Unicode
mysql> describe bio;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| TOPIC | varchar(30) | YES | NULL | NULL | |
| QUESNO | varchar(10) | YES | NULL | NULL | |
| QUES | varchar(120) | YES | NULL | NULL | |
| OPT1 | varchar(100) | YES | NULL | NULL | |
| OPT2 | varchar(100) | YES | NULL | NULL | |
| OPT3 | varchar(100) | YES | NULL | NULL | |
| OPT4 | varchar(100) | YES | NULL | NULL | |
| CORRECT | varchar(100) | YES | NULL | NULL | |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.08 sec)

mysql> describe chem;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| TOPIC | varchar(30) | YES | NULL | NULL | |
| QUESNO | varchar(10) | YES | NULL | NULL | |
| QUES | varchar(180) | YES | NULL | NULL | |
| OPT1 | varchar(120) | YES | NULL | NULL | |
| OPT2 | varchar(120) | YES | NULL | NULL | |
| OPT3 | varchar(120) | YES | NULL | NULL | |
| OPT4 | varchar(120) | YES | NULL | NULL | |
| CORRECT | varchar(120) | YES | NULL | NULL | |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)

mysql> describe maths;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| TOPIC | varchar(30) | YES | NULL | NULL | |
| QUESNO | varchar(10) | YES | NULL | NULL | |
| QUES | varchar(300) | YES | NULL | NULL | |
| OPT1 | varchar(120) | YES | NULL | NULL | |
| OPT2 | varchar(120) | YES | NULL | NULL | |
| OPT3 | varchar(120) | YES | NULL | NULL | |
| OPT4 | varchar(200) | YES | NULL | NULL | |
| CORRECT | varchar(300) | YES | NULL | NULL | |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

```

MySQL 8.0 Command Line Client - Unicode
+-----+-----+-----+-----+
| CORRECT | varchar(120) | YES | NULL |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)

mysql> describe maths;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| TOPIC | varchar(30) | YES | NULL | NULL    |       |
| QUESNO | varchar(10) | YES | NULL | NULL    |       |
| QUES | varchar(300) | YES | NULL | NULL    |       |
| OPT1 | varchar(200) | YES | NULL | NULL    |       |
| OPT2 | varchar(200) | YES | NULL | NULL    |       |
| OPT3 | varchar(120) | YES | NULL | NULL    |       |
| OPT4 | varchar(200) | YES | NULL | NULL    |       |
| CORRECT | varchar(300) | YES | NULL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)

mysql> describe phy;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| TOPIC | varchar(80) | YES | NULL | NULL    |       |
| QUESNO | varchar(10) | YES | NULL | NULL    |       |
| QUES | varchar(300) | YES | NULL | NULL    |       |
| OPT1 | varchar(150) | YES | NULL | NULL    |       |
| OPT2 | varchar(150) | YES | NULL | NULL    |       |
| OPT3 | varchar(150) | YES | NULL | NULL    |       |
| OPT4 | varchar(150) | YES | NULL | NULL    |       |
| CORRECT | varchar(150) | YES | NULL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.01 sec)

mysql>

```

*Records can be inserted into the tables by the sql query given below.*

`mysql>INSERT INTO tablename (column1, column2....)`

`VALUES (VALUE1, VALUE2.....)`

```

MySQL 8.0 Command Line Client - Unicode
mysql> CREATE TABLE BIO(TOPIC,QUESNO,QUES,OPT1,OPT2,OPT3,OPT4,CORRECT)VALUES("GENETICS","001","1.The most striking example of point mutation is found in a disease called","A)down syndrome","B)sickle cell anaemia","C)edward syndrome","D)night blindness");
Query OK, 0 rows affected (2.36 sec)

mysql> INSERT INTO BIO(TOPIC,QUESNO,QUES,OPT1,OPT2,OPT3,OPT4,CORRECT)VALUES("GENETICS","001","1.The most striking example of point mutation is found in a disease called","A)down syndrome","B)sickle cell anaemia","C)edward syndrome","D)night blindness");
ERROR 1364 (HY000): The field 'CORRECT' doesn't have a default value
mysql> INSERT INTO BIO(TOPIC,QUESNO,QUES,OPT1,OPT2,OPT3,OPT4,CORRECT)VALUES("GENETICS","001","1.The most striking example of point mutation is found in a disease called","A)down syndrome","B)sickle cell anaemia","C)edward syndrome","D)night blindness","Correct Option : sickle cell anaemia");
Query OK, 1 row affected (0.06 sec)

mysql>

```

After inserting all the records in the tables we can see the contents of the tables by the following command-

mysql>SELECT \* FROM tablename;

TOPIC	OPT1	QUESNO	QUES	OPT4	OPT2	CORRECT	OPT3
Genetics	A)down syndrome	1.	The most striking example of point mutation is found in a disease called	D)night blindness	B)sickle cell anaemia	C)edwar	
syndrome						Correct Option : sickle	
cell anaemia							
Genetics	A)GGG	2.	In sickle cell anaemia glutamic acid is replaced by valine.Which one of the following triplets cod	D)GUG	B)AAG	C)GAA	
es for valine?						Correct Option : GUG	
Genetics	A)pleiotropy	3.	A person having genotype IA IA would show the blood group as AB.This is because of :	D)incomplete dominance	B)co-dominance	C)segre	
gation						Correct Option : co-dom	
inance							
Genetics	A)platypus	4.	ZZ/WW type of sex determination is seen in :	D)peacock	B)snails	C)cockr	
oach						Correct Option : peacoc	
K							
Genetics	A)Independent assortment of genes	5.	Which of the following will not result in variations among siblings?	D)mutation	B)crossing over	C)linka	
e						Correct Option : linkag	
e :	(a)	6.	The colour based contrasting traits in seven contrasting pairs, studied by Mendel in pea plant wer	(b) 2	(c) 3	(d) 4	Correct Option : 3
Genetics	(a)	7.	_____ pairs of contrasting traits were studied by Mendel in pea plant.	(d) 10	(b) 7	(c) 8	Correct Option : 7
Genetics	(a)	8.	Which of the following characters was not chosen by Mendel ?	(b) Pod colour	(c) Loc	(d) Shap	

Reproduction	A)Earthworm, tapeworm, housefly, frog	1.	Which of the following groups is formed only of the hermaphrodite organisms?	D)Earthworm, tapeworm, sea horse, housefly	B)Earthworm, tapeworm, sea horse, housefly	C)Ear	
thworm, leech, sponge, roundworm						Correct Option : Earthw	
orm, tapeworm, leech, sponge							
Reproduction	A)Amoeba, sponge, leech	2.	Which of the following options shows bisexual animals only?	D)Sponge, cockroach, Amoeba	B)Sponge, cockroach, Amoeba	C)Ear	
thworm, sponge, leech						Correct Option : Earthw	
Reproduction	A)Housefly	3.	Which of the following organisms has the highest number of chromosomes?	D)Onion	B)Butterfly	C)Oph	
inglossum						Correct Option : Ophio	
Tossum							
Reproduction	A)40	4.	In maize, a meiocyte has 20 chromosomes. What will be the number of chromosomes in its somatic cel	(b) 30	(c) 20	(d) 10	Correct Option : 20
?							
Reproduction	A)380	5.	If a butterfly has chromosome number 360 in its meiocyte (2n). What will be the chromosome number in its gametes?	(b) 190	(c) 95	(d) 760	Correct Option : 190
Reproduction	A)8 - celled	6.	The female gametophyte of a typical dicot at the time of fertilisation is :	(b) 7 - celled	(c) 6 -	(d) 5 - celled	Correct Option : 7 - ce
celled							
Reproduction	A)8 - nucleate, 7 - celled	7.	Polygonum type of embryo sac is :	(b) 8 - nucleate, 8 - celled	(c) 7 -	(d) 4 - nucleate, 3 - celled	Correct Option : 8 - nu
nucleate, 7 - celled							
Reproduction	A)Helianthus	8.	Both chasmogamous and cleistogamous flowers are present in :	(b) Commellina	(c) Ros	(d) Gossypium	Correct Option : Commel
a							
Reproductive health	A)IUDs	1.	Which of the following is ART?	(d) Both (b) & (c)	(b) GIFT	(c) ZIF	
						Correct Option : Both (	
b) & (c)							
Reproductive health	A)002	2.	The technique called Gamete Intra Fallopian Transfer (GIFT) is recommended for those females :	(a) who cannot produce an ovum	(b) who cannot retain the foetus inside uterus	(c) who	
						cannot provide suitable environment for fertilisation	
						(d) all of these	Correct Option : who ca
Reproductive health	A)003	3.	which method can be used for women that cannot produce ovum but can provide suitable environment?	(b) GIFT	(c) IUI	(d) ICSI	Correct Option : (b) GI

Reproductive health	004	4. Which of these can be used to cure infertility in couples where male partner has very low sperm count?	(a) IUD	(b) GIFT	(c) IUI	(d) None of these	Correct Option : IUI
Reproductive health	005	5. The method of directly injecting a sperm into ovum in assisted reproductive technology is called	(a) GIFT	(b) ZIFT	(c) ICSI	(d) ET	Correct Option : ICSI
Reproductive health	006	6. Increased IMR and decreased MMR in a population will :	(a) cause rapid increase in growth rate	(b) result in decline in growth rate	(c) not cause significant change in growth rate	(d) result in an explosive population.	Correct Option : result in decline in growth rate
Reproductive health	007	7. Intensely lactating mothers do not generally conceive due to the :	(a) suppression of gonadotropins	(b) hypersecretion of gonadotropins	(c) suppression of gametic transport	(d) suppression of fertilisation.	Correct Option : suppression of gonadotropins
Reproductive health	008	8. A national level approach to build up a reproductively healthy society was taken up in our country in :	(a) 1950s	(b) 1960s	(c) 1988	(d) 1990s	Correct Option : 1950s
Living world	001	1. Identify the incorrect match.	(a) Physiology - Study of functions and processes of life	(b) Pedology - Soil science	(c) Limnology - Study of fresh water	(d) Kinesiology - Fossil study	Correct Option : Kinesiology - Fossil study
Living world	002	2. The Phylogenetic system of classification was put forth by :	(a) Theophrastus	(b) George Bentham and Joseph Dalton Hooker	(c) Carolus Linnaeus	(d) Adolf Engler and Karl Prantl	Correct Option : Adolf Engler and Karl Prantl
Living world	003	3. Two taxonomic species are distinguished from each other by :	(a) their failure to interbreed	(b) their ability to exchange gene freely	(c) their similarity in morphological characters	(d) discontinuity in a set of correlated characters	Correct Option : their failure to interbreed
Living world	004	4. Musca domestica is common name of :	(a) Housefly	(b) Mosquito	(c) Snail	(d) Ant	Correct Option : Housefly
Living world	005	5. Keystone species are :	(a) important for ecosystem	(b) important for plants	(c) endangered species	(d) extinct species	Correct Option : important for ecosystem
Living world	006	6. The study of fish culture is called :	(a) ophiology	(b) herpetology	(c) ichthyology	(d) pisciculture	Correct Option : pisciculture

thyology	007	7. National Botanical Research Institute is located in :	(a) Shimla	(b) Dehradun	(c) Howrah	(d) Lucknow	Correct Option : Lucknow
thyology	008	8. A system which gets continuous flow of energy is called :	(a) micropropagated system	(b) closed system	(c) open system	(d) steady state	Correct Option : open system
Locomotion	001	1. Metacarpals are present in :	(a) wrist	(b) palm	(c) digits	(d) thigh	Correct Option : palm
Locomotion	002	2. The elements associated with muscle contraction are :	(a) Mg and Ca	(b) Mg and Cl	(c) Na and Ca	(d) Ca and K	Correct Option : Na and Ca
Locomotion	003	3. What happens in osteoporosis?	(a) Decrease in progesterone	(b) Increase in progesterone	(c) Decrease in estrogen	(d) Both 2 and 3	Correct Option : Decrease in estrogen
Locomotion	004	4. Coris cycle operates in :	(a) Cartilage	(b) Muscle	(c) Liver	(d) Liver and muscle	Correct Option : liver
Locomotion	005	5. One of the following is true of muscle contraction.	(a) H-zone expands	(b) I-band expands	(c) A-B	(d) The sarcomeres expands	Correct Option : A-B and remains constant
Locomotion	006	6. Which cavity is formed by the fusion of coxal bones?	(a) Glenoid cavity	(b) Acetabulum	(c) Acetabulum	(d) Scapula	Correct Option : Acetabulum
Locomotion	007	7. Which is a part of pectoral girdle?	(a) Acetabulum	(b) Ilium	(c) Sternum	(d) Glenoid cavity	Correct Option : Glenoid cavity
Locomotion	008	8. A skeletal muscle which decreases the angle between two bones and bends a joint is :	(a) Flexor	(b) Abductor	(c) Extensor	(d) Adductor	Correct Option : Flexor

Here are the contents of the other three tables-

```
MySQL 8.0 Command Line Client - Unicode
mysql> select* from chem;
+-----+-----+-----+-----+
| TOPIC | QUESNO | QUES | OPT1 | OPT2 | OPT3 | CORRECT | OPT4 |
+-----+-----+-----+-----+
| Solutions | 001 | 1. Mole fraction of glycerine C3H5(OH)3 in solution containing 36 g of water and 46 g of glycerine is : | (a) 0.46 | (b) 0.40 | (c) 0.20 | (d) 0.3 | Correct Option : 0.20 | (a) 0.46 |
| Solutions | 002 | 2. out of molality (m), molarity (M), formality (F) and mole fraction (x), those which are independent of temperature are : | (a) M, m | (b) F, x | (c) m, x | (d) M, x | Correct Option : m, x | (c) m, x |
| Solutions | 003 | 3. Which of the following condition is not satisfied by an ideal solution? | (a) ?Hmixing = 0 | (b) ?Vmixing = 0 | (c) Raoult's Law is obeyed | (d) Formation of an azeotropic mixture | Correct Option : Raoult's law is obeyed | (c) Raoult's Law is obeyed |
| Solutions | 004 | 4. The boiling point of an azeotropic mixture of water and ethanol is less than that of water and ethanol. The mixture shows | (a) no deviation from Raoult's Law. | (b) positive deviation from Raoult's Law. | (c) negative deviation from Raoult's Law. | (d) that the solution is unsaturated. | Correct Option : Positive deviation from Raoult's law | (b) positive deviation from Raoult's Law. |
+-----+-----+-----+-----+
```

Type here to search    30°C Haze 8:29 AM 8/13/2021

```
MySQL 8.0 Command Line Client - Unicode
t the solution is unsaturated. | Correct Option : Positive deviation from Raoult's Law
| Solutions | 005 | 5. Which has the lowest boiling point at 1 atm pressure? | (a) 0.1 M KCl | (b) 0.1 M Urea | (c) 0.1 M CaCl2 | (d) 0.1 M AlCl3 | Correct Option : 0.1M Urea
| Solutions | 006 | 6. Osmotic pressure of a solution is 0.0821 atm at a temperature of 300 K. The concentration in moles/litre will be : | (a) 0.33 | (b) 0.666 | (c) 0.3 × 10-2 | (d) 3 | Correct Option : 0.3×10-2
| Solutions | 007 | 7. People add sodium chloride to water while boiling eggs. This is to : | (a) decrease the boiling point. | (b) increase the boiling point. | (c) prevent the breaking of eggs. | (d) make eggs tasty. | Correct Option : increase the boiling point | (b) increase the boiling point.
| Solutions | 008 | 8. The van't Hoff factor (i) accounts for : | (a) degree of solubilisation of solute. | (b) the extent of dissociation of solute. | (c) the extent of dissolution of solute. | (d) the degree of decomposition of solution. | Correct Option : the extent of disassociation of solute
| Electrochemistry | 001 | 1. The charge required for the reduction of 1 mole of MnO4- to MnO2 is : | (A)1 | (B)3 | (C)5 | (D)6 | Correct Option : 3
| Electrochemistry | 002 | 2. The reaction, 3ClO- (aq) → ClO3 (aq) + 2Cl- (aq) is an example of : | (A)Oxidation reaction | (B)Reduction reaction | (C)Disproportionation reaction | (D)Decomposition reaction | Correct Option : Disproportionation reaction
| Electrochemistry | 003 | 3. NH4NC2- is used in salt bridge because : | (A)it forms a jelly like material with agar-agar | (B)it is a weak electrolyte | (C)it is a good conductor of electricity | (D)the transport number of NH4+ and NO3- ions are almost equal | Correct Option : the transport number of NH4+ and NO3- ions are almost equal | (C)it is a good conductor of electricity
+-----+-----+-----+-----+
```

Type here to search    30°C Haze 8:29 AM 8/13/2021

```
MySQL 8.0 Command Line Client - Unicode
transport number of NH4+ and NO3- ions are almost equal | Correct Option : the transport number of NH4+ and NO3- ions are almost equal
| Electrochemistry | 004 | 4. without losing its concentration ZnCl2 solution cannot be kept in contact with : | (A)Au | (B)Al | (C)Pb | (D)Ag | Correct Option : Al
| Electrochemistry | 005 | 5. When heating one end of a metal plate, the other end gets hot because of : | (A)the resistance of the metal | (B)mobility of atoms in the metal | (C)energised electrons moving to the other end | (D)minor perturbation in the energy of atoms | Correct Option : energised electrons moving to the other end
| Electrochemistry | 006 | 6. The emf of the cell: Ni / Ni2+ (1.0 M) // Au3+ (1.0 M) / Au (Eo = -0.25 V for Ni2+/Ni; Eo = 1.5 V for Au3+/Au) is : | (A) 1.25 V | (B) -1.25 V | (C) 1.75 V | (D) 2.0 | Correct Option : 1.75V
| Electrochemistry | 007 | 7. The standard emf of a galvanic cell involving cell reaction with n = 2 is formed to be 0.295 V at 25°C. The equilibrium constant of the reaction would be : | (A) 1.0 × 1010 | (B) 2.0 × 1011 | (C) 4.0 × 1012 | (D) 1.0 × 1012 | Correct Option : 1.0 × 1010
| Electrochemistry | 008 | 8. If E'Fe2+/Fe = -0.441 V and E'Fe2+/Fe2+ = 0.771 V, the standard EMF of the reaction, Fe + 2Fe3+ → 3Fe2+ will be : | (A) 1.212 V | (B) 0.111 V | (C) 0.330 V | (D) 1.653 V | Correct Option : 1.212V
| Surface chemistry | 001 | 1. In Freundlich adsorption isotherm x/m = Kp1/n, the value of ?n? at low pressure is : | (A) more than one. | (B) less than one. | (C) equal to one. | (D) from zero to one. | Correct Option : equal to one
| Surface chemistry | 002 | 2. According to adsorption theory of catalysis, the speed of the reaction increases because : | (A) the concentration of the reactant molecules at the active centres of the catalyst becomes high due to adsorption. | (B) in the process of adsorption, the activation energy of the molecules becomes large. | (C) adsorption produces heat which increases the speed of the reaction. | (D) adsorption lowers the activation energy of the reaction. | Correct Option : adsorption lowers the activation energy of the reaction
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MySQL 8.0 Command Line Client - Unicode
| chemical kinetics | 002 | 2. Which among the following is a false statement?
| Chemical kinetics | 003 | 3. Which of the following statements about the catalyst is true?
| chemical kinetics | 004 | 4. For the reaction N2 + 3H2 ? 2NH3 if [NH3]?t = 2 × 10-4 mol L-1s-1, the value of [H2]?t would be
| chemical kinetics | 005 | 5. The rate of a certain hypothetical reaction A + B + C ? products is given by r = 7d[A]dtk[A]1/2[B]1/3[C]1/4. The order of the reaction is
| chemical kinetics | 006 | 6. In the formation of SO2 by contact process: 2SO2 + O2 ? 2SO3, the rate of reaction was measured as ? d[O2]dt = 2.5 × 10-4 mol L-1s-1. At the rate of formation of SO3 will be:
| chemical kinetics | 007 | 7. For a chemical reaction A?B, it is found that the rate of reaction doubles when the concentration of A is increased four times. The order of reaction is :
| chemical kinetics | 008 | 8. The half life of the first order reaction having rate constant K = 1.7 × 10-5s-1 is
| Correct Option : e-E/Rt
| (a) Rate of zero order reaction is independent of initial concentration of reactant. | (b) Half life of a third order reaction is inversely proportional to the square of initial concentration of the reactant. | (c) Molecularity of a reaction may be zero or fraction. | (d) For a first order reaction, t1/2=0.693K
| (e) Molecularity of a reaction maybe zero or fraction
| (a) A catalyst accelerates the rate of reaction by bringing down the activation energy. | (b) A catalyst does not participate in reaction mechanism. | (c) A catalyst makes the reaction feasible by making ΔG more negative. | (d) A catalyst makes equilibrium constant more favourable for forward reaction. | (e) A catalyst accelerates the rate of reaction by bringing down the activation energy
| (a) 10-4 mol L-1s-1 | (b) 3 × 10-4 mol L-1s-1 | (c) 4 × 10-4 mol L-1s-1 | (d) 6 × 10-4 mol L-1s-1 | (e) Correct Option : 3 × 10-4 mol L-1s-1
| (a) 13/11 | (b) 13/14 | (c) 12/13 | (d) 13/12
| (a) -5.0 × 10-4 mol L-1s-1 | (b) -1.25 × 10-4 mol L-1s-1 | (c) 3.75 × 10-4 mol L-1s-1 | (d) 5.0 × 10-4 mol L-1s-1 | (e) Correct Option : 5.00 × 10-4 mol L-1s-1
| (a) Two | (b) One | (c) Half | (d) Zero | (e) Correct Option : Half
| (a) 12.1 h | (b) 9.7 h | (c) 11.3 h | (d) 1.8 h | (e) Correct Option : 11.3h
| (a) 30°C Haze | (b) 830 AM | (c) 03/12/2021 | (d) 100% | (e) Type here to search
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h			Correct Option : H <sub>3</sub> Br
P-block	001	1. H <sub>2</sub> S is more acidic than H <sub>2</sub> O because :	(a) oxygen is more electronegative than sulphur.   (b) atomic number of sulphur is higher than oxygen.   (c) H - S bond dissociation energy is less as compared to H - O bond.   (d) H - O bond dissociation energy is less also compared to H - S bond.   Correct Option : atomic number of sulphur is higher than oxygen.
P-block	002	2. The boiling points of hydrides of group 16 are in the order :	(a) H <sub>2</sub> O > H <sub>2</sub> Se > H <sub>2</sub> S > H <sub>2</sub> Te   (b) H <sub>2</sub> O > H <sub>2</sub> Se > H <sub>2</sub> S > H <sub>2</sub> Te   (c) H <sub>2</sub> O > H <sub>2</sub> Te > H <sub>2</sub> Se > H <sub>2</sub> S   (d) Non e of these Correct Option : H <sub>2</sub> O>H <sub>2</sub> S>H <sub>2</sub> Se>H <sub>2</sub> Te
P-block	003	3. In the manufacture of sulphuric acid by contact process Tyn dall box is used to :	(a) convert SO <sub>2</sub> and SO <sub>3</sub>   (b) test the presence of dust particles   (c) filter dust particles   (d) remove impurities   Correct Option : test the presence of dust particles
P-block	004	4. Fluorine differs from rest of the halogens in some of its properties. This is due to :	(a) its smaller size and high electronegativity.   (b) lack of d-orbitals.   (c) low bond dissociation energy.   (d) All of the these.   Correct Option : lack of d-orbitals
P-block	005	5. The set with correct order of acidity is :	(a) HClO < HClO <sub>2</sub> < HClO <sub>3</sub> < HClO <sub>4</sub>   (b) HClO <sub>4</sub> < HClO <sub>3</sub> < HClO <sub>2</sub> < HClO   (c) HClO < HClO <sub>4</sub> < HClO <sub>3</sub> < HClO <sub>2</sub>   (d) HCl   Correct Option : HClO < HClO <sub>3</sub> < HClO <sub>2</sub> < HClO
P-block	007	7. The formation of O <sub>2+</sub> [PtF <sub>6</sub> ] <sup>-</sup> is the basis for the formation of first xenon compound. This is because :	(a) O <sub>2</sub> and Xe have different sizes.   (b) both O <sub>2</sub> and Xe have different sizes.   (c) O <sub>2</sub> and Xe have comparable electro-negativities.   (d) O <sub>2</sub> and Xe have comparable ionisation enthalpies.   Correct Option : O <sub>2</sub> and Xe have comparable ionisation enthalpies.
P-block	008	8. Partial hydrolysis of XeF <sub>4</sub> gives :	(a) xeo <sub>3</sub>   (b) xeoF <sub>2</sub>   (c) xeoF <sub>4</sub>   (d) XeF <sub>2</sub>   Correct Option : XeOF <sub>2</sub>

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MySQL 8.0 Command Line Client - Unicode
+-----+-----+-----+
| (a) convert SO2 and SO3 | (b) test the presence of dust particles | (c) filter dust particles | (d) remove impurities
+-----+-----+-----+
| P-block | 004 | 4. Fluorine differs from rest of the halogens in some of its properties. This is due to : | (a) its smaller size and high electronegativity. | (b) lack of d-orbitals. | (c) low bond dissociation energy. | (d) All of the above.
+-----+-----+-----+
| P-block | 005 | 5. The set with correct order of acidity is : | (a) HClO4 < HClO3 < HClO2 < HClO | (b) HClO4 < HClO3 < HClO2 < HClO | (c) HClO < HClO4 < HClO3 < HClO | (d) HClO < HClO2 < HClO3 < HClO | Correct Option : HClO4 < HClO3 < HClO2 < HClO
+-----+-----+-----+
| P-block | 007 | 7. The formation of O2+ [PtF6]- is the basis for the formation of first xenon compound. This is because O2 and Xe have comparable ionisation enthalpies. | (a) O2 and Xe have comparable electro-negativeities. | (b) both O2 and Xe are gases. | (c) O2 and Xe have comparable ionisation enthalpies. | (d) O2 and Xe have comparable ionisation enthalpies. | Correct Option : O2 and Xe have comparable ionisation enthalpies.
+-----+-----+-----+
| P-block | 008 | 8. Partial hydrolysis of XeF4 gives : | (a) XeO3 | (b) XeOF2 | (c) XeOF4 | (d) XeF2 | Correct Option : XeOF2
+-----+-----+-----+
| P-block | 006 | 6. When chlorine reacts with cold and dilute solution of sodium hydroxide, it forms : | (a) Cl- and ClO4- | (b) Cl- and ClO2- | (c) Cl- and ClO3- | (d) Cl- and ClO- | and ClO4-
+-----+-----+-----+
40 rows in set (0.07 sec)

mysql>
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MySQL 8.0 Command Line Client - Unicode
40 rows in set (0.07 sec)

mysql> select * from maths;
+-----+-----+-----+
| TOPIC          | QUESNO | QUES
+-----+-----+-----+
| OPT1           |        |        |
| CORRECT        |        |        |
| OPT2           |        |        |
| OPT3           |        |        |
| OPT4           |        |        |
| RELATION       | 001    | 1. If  $f(x+10)+f(x+4)=0$ , then  $f(x)$  is a periodic function with period :
| (A)2           |        | (C)6           | (B)4
| (D)12          |        | (D)12          | Correct Option : 12
| RELATION       | 002    | 2. If  $n(A)=3$ ,  $n(B)=2$ ,  $n(A \cap B)=2$ , then the total number of relations from A to B
is :           | (A)64          | (B)32
| (D)2           |        | (C)8           | Correct Option : 64
| RELATION       | 003    | 3. Range of function  $f(x)=\cos(k \sin x)$  is  $[-1,1]$ , then the least positive integral value of
k will be :     | (A)1           | (B)2
| (D)4           |        | (C)3           | Correct Option : 4
+-----+-----+-----+
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MySQL 8.0 Command Line Client - Unicode
Trigonometry | 001 |  $\sin^{-1}(-x) =$ 
| (a)  $\sin^{-1}(x)$ 
| (b)  $-\sin^{-1}(x)$ 
| (c)  $\pi - \sin^{-1}(x)$ 
| (d)  $\pi + \sin^{-1}(x)$ 
| Correct Option : (b)  $-\sin^{-1}(x)$ 

Trigonometry | 002 |  $\sin(\sin^{-1}(x)) = x$  is valid for  $x$  belonging to
| (a)  $[-1, 1]$ 
| (b)  $R$ 
| (c)  $(-1, 1)$ 
| (d)  $(-1, 1]$ 
| Correct Option : (a)  $[-1, 1]$ 

Trigonometry | 003 |  $\cot(\sin^{-1}x + \cos^{-1}x) =$ 
| (a) 0
| (b) 1
| (c) 2
| (d) 3
| Correct Option : (a) 0

Trigonometry | 004 |  $\tan^{-1}(-1) + \cot^{-1}(\tan(3\pi/4)) =$ 
| (a)  $\pi/2$ 
| (b)  $2\pi$ 
| (c)  $\pi$ 
| (d) 0
| Correct Option : (a)  $\pi/2$ 

Trigonometry | 005 |  $\sin^{-1}(12/13) + \cos^{-1}(13/x) = \pi/2$  for  $x=?$ 
| (a) 12
| (b)  $169/12$ 
| (c)  $196/12$ 
| (d)  $1/12$ 
| Correct Option : (b)  $169/12$ 

Trigonometry | 006 | If  $\sin(\cot^{-1}(x+1)) = \cos(\tan^{-1}(x))$ , then value of  $x$  is
| (a)  $-1/2$ 
| (b)  $1/2$ 
| (c) 0
| (d)  $9/4$ 
| Correct Option : (a)  $-1/2$ 

Trigonometry | 007 | The minimum value of  $8(\cos 2x + \cos x)$  is equal to
| (a) 0
| (b) 1
| (c) 2
| (d) 3
| Correct Option : (a) 0
```

MySQL 8.0 Command Line Client - Unicode

| Trigonometry | 008 | The value of  $\sin 1 \cdot \cos 2 \cdot \tan 3 \cdot \cot 4 \cdot \sec 5 \cdot \cosec 6$  is  
| (a) Positive | (b) Negative  
| (c) 3 | (d) -8  
| Correct Option : (b) -8

| Probability that a selected number is divisible by 3 is :  
| (a) 1/4 | (b) Zero  
| (c) May be positive and Negative  
| (d) None of these  
| Correct Option : (b) Negative

| Probability balls are of same colour is :  
| (a) 4/9 | (b) 1/3  
| (c) 1/2 | (d) 1  
| Correct Option : (d) 1

| Probability hat one ball is red and other is black is P then the value of  $28P-15$  is :  
| (a) 1 | (b) 8/9  
| (c) 1/9 | (d) 2/9  
| Correct Option : (a) 4/9

| Probability Ram comes first is thrice that of Ali and the probability of Ali coming first is thrice of John. The probability of John coming first is :  
| (a) 1/13 | (b) 3/13  
| (c) 12/13 | (d) 9/13  
| Correct Option : (a) 1/13

| Probability a perfect square or a perfect cube is :  
| (a) 7/50 | (b) 3/25  
| (c) 2/25 | (d) 1/25  
| Correct Option : (a) 7/50

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| Probability | 006 | 6. 12 members of a committee are to sit down at random round a table. Probability that there are 3 members between the two particular members A and B, is :  
| (a) 2/11 | (b) 7/11  
| (c) 4/11 | (d) 1/25  
| Correct Option : (b) 3/25

| Probability | 007 | 7. A bag contains 5 brown and 4 white socks. A man pulls out two socks. The probability that these are of the same colour, is :  
| (a) 5/108 | (b) 18/108  
| (c) 30/108 | (d) 48/108  
| Correct Option : (d) 48/108

| Probability | 008 | 8. If two balls are drawn from a bag containing 2 white, 4 red and 5 black balls, the chance that both are red is :  
| (a) 1/55 | (b) 2/55  
| (c) 4/55 | (d) 6/55  
| Correct Option : (d) 6/55

| Permutations and Combinations | 001 | 1. How many numbers greater than a million can be formed with the digits 5, 5, 2, 2, 1, 7, 6?  
| (a) 1320 | (b) 1180  
| (c) 1000 | (d) 1260  
| Correct Option : (d) 1260

| Permutations and Combinations | 002 | 2. How many different signals can be given using any number of flags from 5 flags of different colours?  
| (a) 325 | (b) 1888  
| (c) 2030 | (d) 1920  
| Correct Option : (a) 325

| Permutations and Combinations | 003 | 3. Number of natural numbers not exceeding 4321 can be formed with the digits 1, 2, 3, 4 if repetition is allowed is :  
| (a) 313 | (b) 134  
| (c) 133 | (d) 222  
| Correct Option : (d) 222

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| Permutations and Combinations | 004 | 4. Number of ways in which the letters of the word RAINBOW be arranged such that N and B are together is :  
| (a) 2560 | (b) 1540  
| (c) 540 | (d) 1440  
| Correct Option : (d) 1440

| Permutations and Combinations | 005 | 5. In a test paper there are 10 questions, Number of ways in which 6 questions to be answered is :  
| (a) 105 | (b) 210  
| (c) 310 | (d) 220  
| Correct Option : (b) 210

| Permutations and Combinations | 006 | 6. In a meeting everyone had shaken hands with everyone else, it was found that 66 handshakes were exchanged. Number of persons present in the meeting is :  
| (a) 17 | (b) 12  
| (c) 13 | (d) 18  
| Correct Option : (b) 12

| Permutations and Combinations | 007 | 7. In a badminton tournament each player played one game with all the other players. Number of players participated in the tournament if they played 105 games is :  
| (a) 35 | (b) 15  
| (c) 12 | (d) 10  
| Correct Option : (b) 15

| Permutations and Combinations | 008 | 8. A box contains 7 red, 6 white and 4 blue balls. Number of ways of selection of three red balls is :  
| (a) 35 | (b) 45  
| (c) 27 | (d) 36  
| Correct Option : (a) 35

| Linear Inequalities | 001 | 1. Two real numbers or two algebraic expressions related by the symbol '<', '>', '=' or ' $\geq$ ' form a linear inequality:  
| (a) Equation | (b) Polynomial  
| (c) Inequality | (d) None of these  
| Correct Option : (c) Inequality

| Linear Inequalities | 002 | 2.  $x^2 - 5$  is :  
| (a) 1 | (b) 2  
| (c) 3 | (d) 4  
| Correct Option : (b) 2

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MySQL 8.0 Command Line Client - Unicode
| (a) Numerical inequality
| (b) Literal inequality
| (c) Double inequality
| (d) Strict inequality
| correct Option : (b) Literal inequality
|
| Linear Inequalities | 003 | 3. If  $x$  is a real number and  $|x| < 3$ , then :
| (a)  $x \leq 3$ 
| (b)  $-3 < x < 3$ 
| (c)  $x \geq 3$ 
| (d)  $-3 \leq x \leq 3$ 
| correct Option : (b)  $-3 < x < 3$ 
|
| Linear Inequalities | 004 | 4. Region represented by the system of inequalities  $x > 0$  and  $y > 0$ , is :
| (a) First quadrant
| (b) Second quadrant
| (c) Third quadrant
| (d) Fourth quadrant
| correct Option : (a) First quadrant
|
| Linear Inequalities | 005 | 5. If  $a, b, c$  are real numbers such that  $a > b, c > 0$ , then :
| (a)  $ac < bc$ 
| (b)  $ac > bc$ 
| (c)  $ac = bc$ 
| (d)  $ac \neq bc$ 
| correct Option : (c)  $ac > bc$ 
|
| Linear Inequalities | 006 | 6. If  $a, b, c$  are real numbers such that  $a > b, c < 0$ , then :
| (a)  $ac < bc$ 
| (b)  $ac < bc$ 
| (c)  $ac > bc$ 
| (d)  $ac \neq bc$ 
| correct Option : (d)  $ac \neq bc$ 
|
| Linear Inequalities | 007 | 7.  $7x + 5y \leq 10$  is :
| (a) Slack inequality
| (b) Numerical inequality
| (c) Strict inequality
| (d) Double inequality
| correct Option : (a) Slack inequality
|
| Linear Inequalities | 008 | 8. which of the following is a false statement?
| (a) Equal numbers may be added to both sides of an inequality without affecting the sign of the inequality. (b) Both sides of the inequality can be multiplied by the same positive number without affecting the sign of the inequality. (c) Both sides of the inequality can be multiplied by the same negative number without affecting the sign of the inequality. (d) Both sides of the inequality can be divided by the same non-zero number without affecting the sign of the inequality.
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REMARKS : If both sides of the inequality are multiplied by the same negative number, then the sign of the inequality gets reversed | Correct Option : (c) Both sides of the inequality can be divided by the same negative number without affecting the sign of the inequality |

| RELATION | 004 | 4. If  $(x+1,y-2)=(3,1)$  then x and y are :

| (a) 3,4 | (b) 2,3 | (c) 2,4 | (d) 1,1

| RELATION | 005 | 5. If A is the set of even natural numbers less than 8 and B is the set of prime numbers less than 7, then the number of relations from A to B is :

| (a) 2<sup>A9</sup> | (b) 9<sup>A2</sup> | (c) 3<sup>A2</sup> | (d) (2<sup>A9</sup>)<sup>-1</sup>

| RELATION | 006 | 6. Range of  $f(x) = 20\lambda x$  is :

| (a) (0, infinity) | (b) (0,1) | (c) R | (d) (0,20)

| RELATION | 007 | 7. If  $f(x)$  is an identity function, then  $f(5)$  is equal to :

| (a) 0 | (b) 1/5 | (c) 1 | (d) 5

| RELATION | 008 | 8. Number of relations that can be defined on the set  $A = \{a, b, c\}$  is :

| (a) 2<sup>A3</sup> | (b) 6 | (c) 3<sup>A2</sup> | (d) 2<sup>A9</sup>

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MySQL 8.0 Command Line Client - Unicode
mysql> select * from phy;
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| TOPIC | QUESNO | QUES
+-----+-----+-----+
| CORRECT | OPT1 | OPT2 |
|          | OPT3 | OPT4 |
+-----+-----+-----+
| Electric charges and fields | 001 | 1. Two balls of charges q and Q initially have exactly same velocity. Both the balls are subjected to same uniform electric field for same time. As a result, the velocity of the first ball is reduced to half of its initial value and its direction changes by 60°. The direction of the velocity of second ball is found to change by 90°. The electric field and initial velocity of the charged particle are inclined at angle (degrees) | (a) 60 | (b) 30 |
|                                | (c) 90 | (d) 150 |
| Correct Option : (d) 150 |
+-----+-----+-----+
| Electric charges and fields | 002 | 2. Charge is uniformly distributed with volume charge density p in a spherical volume of radius R. A cavity of radius r is made in the charge distribution such that the centre of the cavity is at position vector a from the centre of the charge distribution, then the electric field in the cavity is ( $p$  is the charge density,  $\epsilon$  is the permittivity of free space) | (a) zero | (b) non zero and non uniform | (c) non zero, uniform and equal to  $p(a)/2\epsilon$ 
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MySQL 8.0 Command Line Client - Unicode

Correct option : (d) non zero, uniform and equal to  $p(a)/3\epsilon_0$

| Electric charges and fields | 003 | 3. The electric field in a region of space is spherically symmetric and radially outward. The flux of electric field through a sphere of radius  $r$ , centred at the origin is  $= kr^4\epsilon_0$ . Which of the following is the correct relation between electric field's proportionality with radius  $r$ ?

- | (a)  $r^2$
- | (b)  $r$
- | (c)  $1/r^2$
- | (d)  $r^3$

Correct option : (a)  $r^2$

| Electric charges and fields | 004 | 4. A test charge  $q$  is placed in the electric field of a source charge  $Q$ . The test charge will not follow path of electric field line if :

- | (a) It has zero velocity when released
- | (b) It has non-zero velocity along outward radius, when released
- | (c) It has non-zero velocity along inward radius, when released
- | (d) It has a velocity different from the above three

Correct option : (d) It has a velocity different from the above three

| Electric charges and fields | 005 | 5. Which of the following is true, when a dipole is placed in non-uniform electric field?

- | (a) Net force on it is equal to zero
- | (b) Torque may or may not be zero
- | (c) Torque must be zero
- | (d) All of these

Correct option : (b) Torque may or may not be zero

| Electric charges and fields | 006 | 6. Which of the following is true for electric flux through a Gaussian surface?

Gaussian surface

- | (a) It depends on magnitude of charge enclosed by
- | (b) Electric flux is a scalar quantity
- | (c) Electric flux is independent of shape of Gaussian surface enclosing the charge
- | (d) All are true

Correct option : (d) All are true

| Electric charges and fields | 007 | 7. Under the influence of the Coulomb field of charge  $+Q$ , a charge  $-q$  is moving around it in an elliptical orbit. Find out the correct statement(s) :

- | (a) The angular momentum of the charge  $-q$  is constant
- | (b) The linear momentum of the charge  $-q$  is constant
- | (c) The angular velocity of the charge  $-q$  is constant

Correct option : (a) The angular momentum of the charge  $-q$  is constant

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Correct option : (a) The angular momentum of the charge  $-q$  is constant

| Electric charges and fields | 008 | 8. There are two charged particles of same nature, and they are fixed. The position of equilibrium for a third charge will be :

- | (a) Near the smaller fixed charge
- | (b) Near the greater fixed charge
- | (c) Outside on the line joining two charges
- | (d) None of these

Correct option : (a) Near the smaller fixed charge

| Electrostatic Potential and Capacitance | 001 | 1. There are two concentric conducting shells. The potential of outer shell is 10 V and that of inner shell is 15 V. If the outer shell is grounded, the potential of inner shell becomes/remains :

- | (a) 25V
- | (b) 15V
- | (c) 10V
- | (d) 5V

Correct option : (d) 5V

| Electrostatic Potential and Capacitance | 002 | 2. There are two concentric hollow conducting spherical shells of radii  $r$  and  $R$  ( $R > r$ ). The charge on the outer shell is  $Q$ . What charge should be given to the inner shell, so that the potential at a point  $P$ , at a distance  $2R$  from the common centre, is zero?

- | (a)  $-QR/R$
- | (b)  $-QR/r$
- | (c)  $-2QR/r$
- | (d)  $-Q$

Correct option : (d)  $-Q$

| Electrostatic Potential and Capacitance | 003 | 3. The graph between the surface charge density and radius of curvature for an isolated conductor at constant potential is :

- | (a) Straight line with positive slope
- | (b) Parabola
- | (c) Rectangular hyperbola
- | (d) Straight line negative slope

Correct option : (c) Rectangular hyperbola

| Electrostatic Potential and Capacitance | 004 | 4. Which of the following statements is not true regarding a conductor?

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Correct option : (b) When a conductor is earthed, charge always flows from conductor to earth

| Electrostatic Potential and Capacitance | 005 | 5. Air filled capacitor is charged by a battery and after charging battery is removed. A slab of dielectric material is inserted in it to fill the space completely. The electric field in the capacitor is :

- | (a) Increased
- | (b) Decreased
- | (c) Remains constant
- | (d) First increased then decreased

Correct option : (b) Decreased

| Electrostatic Potential and Capacitance | 006 | 6. Positive and negative point charges of equal magnitude are kept at  $(0, 0, a/2)$  and  $(0, 0, -a/2)$  respectively. The work done by the electric field when another positive point charge is moved from  $(-a, 0, 0)$  to  $(0, a, 0)$  is :

- | (a) Positive
- | (b) Negative
- | (c) Zero
- | (d) Depends on the path connecting the initial and final positions

Correct option : (c) zero

| Electrostatic Potential and Capacitance | 007 | 7. Consider a neutral conducting sphere. A positive point charge is placed outside the sphere. The net charge on the sphere is then :

Surface of the sphere

- | (a) Negative and distributed uniformly over the surface of the sphere
- | (b) Negative and appears only at the point on the sphere closest to the point charge
- | (c) Negative and distributed non-uniformly over the entire surface of the sphere
- | (d) zero

Correct Option : (d) zero

| Electrostatic Potential and Capacitance | 008 | 8. A long, hollow conducting cylinder is kept coaxially inside another long, hollow conducting cylinder of larger radius. Both the cylinders are initially electrically neutral.

- | (a) A potential difference appears between the two cylinders when a charge density is given to the inner cylinder
- | (b) A potential difference appears between the two cylinders when a charge density is given to the outer cylinder
- | (c) No potential difference appears between the two cylinders when a uniform line charge is kept along the axis of the cylinders
- | (d) No potential difference appears between the two cylinders when same charge density is given to both the cylinders

Correct option : (a) A potential difference appears between the two cylinders when a charge density is given to the inner cylinder

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Given to both the cylinders | Correct option : (a) A potential difference appears between the two cylinders when a charge density is given to the inner cylinder | 001 | 1. If Boyle's law is written in the form  $PV = C$ , and the temperature remains constant then, in the above relation, the magnitude of  $C$  depends upon :

- | (a) The nature of the gas used in the experiment
- | (b) The molecular mass of gas in the laboratory
- | (c) The atmospheric pressure
- | (d) The quantity of gas enclosed

Correct option : (d) The quantity of gas enclosed

Kinetic Theory of Gases | 002 | 2. By what percentage should the pressure of a given mass of a gas be increased, so as to decrease its volume by 10% at a constant temperature?

- | (a) 8.1%
- | (b) 9.1%
- | (c) 10.1%
- | (d) 11.1%

Correct option : (d) 11.1%

Kinetic Theory of Gases | 003 | 3. For Boyle's law to hold the gas should be :

- | (a) Perfect and at constant temperature and mass
- | (b) Real and at constant temperature and mass
- | (c) Perfect and at constant temperature but variable mass
- | (d) Real and at constant temperature but variable mass

Correct option : (a) Perfect and at constant temperature and mass

Kinetic Theory of Gases | 004 | 4. Boyle's law is applicable in :

- | (a) Isobaric process
- | (b) Isochoric process
- | (c) Isothermal process
- | (d) Adiabatic process

Correct option : (c) Isothermal process

Kinetic Theory of Gases | 005 | 5. Two identical cylinders contain helium at 1.5 atm and argon at 1 atm respectively. If both the gases are filled in one of the cylinders, the pressure would be :

- | (a) 1 atm
- | (b) 1.75 atm
- | (c) 2.5 atm
- | (d) 3.75 atm

Correct option : (c) 2.5 atm

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Given to both the cylinders | Correct option : (a) A potential difference appears between the two cylinders when a charge density is given to the inner cylinder | 001 | 1. If Boyle's law is written in the form  $PV = C$ , and the temperature remains constant then, in the above relation, the magnitude of  $C$  depends upon :

- | (a) The nature of the gas used in the experiment
- | (b) The molecular mass of gas in the laboratory
- | (c) The atmospheric pressure
- | (d) The quantity of gas enclosed

Correct option : (d) The quantity of gas enclosed

Kinetic Theory of Gases | 002 | 2. By what percentage should the pressure of a given mass of a gas be increased, so as to decrease its volume by 10% at a constant temperature?

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- | (b) 9.1%
- | (c) 10.1%
- | (d) 11.1%

Correct option : (d) 11.1%

Kinetic Theory of Gases | 003 | 3. For Boyle's law to hold the gas should be :

- | (a) Perfect and at constant temperature and mass
- | (b) Real and at constant temperature and mass
- | (c) Perfect and at constant temperature but variable mass
- | (d) Real and at constant temperature but variable mass

Correct option : (a) Perfect and at constant temperature and mass

Kinetic Theory of Gases | 004 | 4. Boyle's law is applicable in :

- | (a) Isobaric process
- | (b) Isochoric process
- | (c) Isothermal process
- | (d) Adiabatic process

Correct option : (c) Isothermal process

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- | (a) 1 atm
- | (b) 1.75 atm
- | (c) 2.5 atm
- | (d) 3.75 atm

Correct option : (c) 2.5 atm

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Given to both the cylinders | Correct option : (a) A potential difference appears between the two cylinders when a charge density is given to the inner cylinder | 001 | 1. If Boyle's law is written in the form  $PV = C$ , and the temperature remains constant then, in the above relation, the magnitude of  $C$  depends upon :

- | (a) The nature of the gas used in the experiment
- | (b) The molecular mass of gas in the laboratory
- | (c) The atmospheric pressure
- | (d) The quantity of gas enclosed

Correct option : (d) The quantity of gas enclosed

Kinetic Theory of Gases | 002 | 2. By what percentage should the pressure of a given mass of a gas be increased, so as to decrease its volume by 10% at a constant temperature?

- | (a) 8.1%
- | (b) 9.1%
- | (c) 10.1%
- | (d) 11.1%

Correct option : (d) 11.1%

Kinetic Theory of Gases | 003 | 3. For Boyle's law to hold the gas should be :

- | (a) Perfect and at constant temperature and mass
- | (b) Real and at constant temperature and mass
- | (c) Perfect and at constant temperature but variable mass
- | (d) Real and at constant temperature but variable mass

Correct option : (a) Perfect and at constant temperature and mass

Kinetic Theory of Gases | 004 | 4. Boyle's law is applicable in :

- | (a) Isobaric process
- | (b) Isochoric process
- | (c) Isothermal process
- | (d) Adiabatic process

Correct option : (c) Isothermal process

Kinetic Theory of Gases | 005 | 5. Two identical cylinders contain helium at 1.5 atm and argon at 1 atm respectively. If both the gases are filled in one of the cylinders, the pressure would be :

- | (a) 1 atm
- | (b) 1.75 atm
- | (c) 2.5 atm
- | (d) 3.75 atm

Correct option : (c) 2.5 atm

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			(a) Specific heat of the gases
			(b) The latent heat of gases
			(c) Specific heat of liquids
			(d) Latent heat of liquids
		Correct Option : (c) Specific heat of liquids	
Thermal properties of Matter	004	4. The excess temperature of a body falls from $12^{\circ}\text{C}$ to $6^{\circ}\text{C}$ in 5 minutes, then the time to fall the excess temperature from $6^{\circ}\text{C}$ to $3^{\circ}\text{C}$ is (assume the Newton's cooling is valid) :	(a) 10 minute   (b) 7.5 minute   (c) 5 minute   (d) 2.5 minute
			Correct Option : (c) 5 minute
Thermal properties of Matter	005	5. Emissive power of an ideal black body at $127^{\circ}\text{C}$ is E. The temperature at which it increases to 102% is :	(a) 400K   (b) 100K   (c) 402K   (d) 502K
			Correct Option : (c) 402K
Thermal properties of Matter	006	6. A body cools in 10 minutes from $60^{\circ}\text{C}$ to $40^{\circ}\text{C}$ . What is the temperature of the body after next 20 minutes? (The temperature of surroundings is $10^{\circ}\text{C}$ )	(a) $14^{\circ}\text{C}$   (b) $30^{\circ}\text{C}$   (c) $20.8^{\circ}\text{C}$   (d) $14.36^{\circ}\text{C}$
			Correct Option : (c) $20.8^{\circ}\text{C}$
Thermal properties of Matter	007	7. Good absorbers of heat are :	(a) Poor emitters   (b) Non-emitters   (c) Good emitters   (d) Highly polished
			Correct Option : (c) Good emitters

# PYTHON CODE

```
from tkinter import *
from tkinter import messagebox
import mysql.connector as mycon

def rel():
    global topic
    topic=""RELATION"""

    root1.destroy()
    quesnumber()

def gen():
    global topic
```

```
topic = "Genetics"
```

```
root1.destroy()
```

```
quesnumber()
```

```
def rep():
```

```
    global topic
```

```
topic = "Reproduction"
```

```
root1.destroy()
```

```
quesnumber()
```

```
def elect():
```

```
    global topic
```

```
topic = "Electrochemistry"
```

```
root1.destroy()
```

```
quesnumber()
```

```
def sur():
```

```
    global topic
```

```
    root1.destroy()
```

```
    topic = "Surface chemistry"
```

```
    quesnumber()
```

```
def kine():
```

```
    global topic
```

```
    root1.destroy()
```

```
    topic = "Chemical kinetics"
```

```
    quesnumber()
```

```
def pblock():
```

```
    global topic
```

```
    root1.destroy()
```

```
topic = "P-block"
```

```
quesnumber()
```

```
def charge():
```

```
    global topic
```

```
    root1.destroy()
```

```
topic = "Electric charges and fields"
```

```
quesnumber()
```

```
def capa():
```

```
    global topic
```

```
    root1.destroy()
```

```
topic = "Electrostatic Potential and Capacitance"
```

```
quesnumber()
```

```
def reh():
```

```
    global topic
```

```
root1.destroy()
```

```
topic = "Reproductive health"
```

```
quesnumber()
```

```
def liv():
```

```
    global topic
```

```
    root1.destroy()
```

```
    topic = "Living world"
```

```
    quesnumber()
```

```
def loco():
```

```
    global topic
```

```
    root1.destroy()
```

```
    topic = "Locomotion"
```

```
    quesnumber()
```

```
def sol():
```

```
global topic
```

```
root1.destroy()
```

```
topic = "Solutions"
```

```
quesnumber()
```

```
def thermal():
```

```
global topic
```

```
root1.destroy()
```

```
topic = "Thermal properties of Matter"
```

```
quesnumber()
```

```
def kinega():
```

```
global topic
```

```
root1.destroy()
```

```
topic = "Kinetic Theory of Gasses"
```

```
quesnumber()
```

```
def oss():

    global topic

    root1.destroy()

    topic = "Oscillations"

    quesnumber()
```

```
def trigo():

    global topic

    root1.destroy()

    topic = "Trigonometry"

    quesnumber()
```

```
def proba():

    global topic

    root1.destroy()

    topic = "Probability"

    quesnumber()
```

```
def comba():

    global topic

    root1.destroy()

    topic = "Permutations and Combinations"

    quesnumber()
```

```
def ineqa():

    global topic

    root1.destroy()

    topic = "Linear Inequalities"

    quesnumber()
```

```
def update():

    def upb():

        root3.destroy()

        main()
```

```
global root3

root1.destroy()

root3 = Tk()

root3.title("Update Question Bank")

root3.geometry("600x700")



Canvas1 = Canvas(root3)

Canvas1.config(bg="#03c6fc")

Canvas1.pack(expand=True,fill=BOTH)





btn1 = Button(root3,text="Add new Question",bg='#0328fc',
fg='white', command=add)

btn1.place(relx=0.28,rely=0.4, relwidth=0.45,relheight=0.1)





btn2 = Button(root3,text="Update an Existing
Question",bg='#0328fc', fg='white', command=updata)

btn2.place(relx=0.28,rely=0.5, relwidth=0.45,relheight=0.1)
```

```
btn3 = Button(root3,text="Delete a Question",bg='#0328fc',  
fg='white', command=dele)
```

```
btn3.place(relx=0.28,rely=0.6, relwidth=0.45,relheight=0.1)
```

```
BackBtn = Button(root3,text="BACK",bg='#d1ccc0',  
fg='black',command=upb)
```

```
BackBtn.place(relx=0.42,rely=0.8,  
relwidth=0.18,relheight=0.08)
```

```
headingFrame1 = Frame(root3,bg="#0328fc",bd=5)
```

```
headingFrame1.place(relx=0.25,rely=0.1,relwidth=0.5,relheight  
=0.13)
```

```
headingLabel = Label(headingFrame1, text="Update  
Question Bank", bg='black', fg='#03c6fc', font=('Courier',15))
```

```
headingLabel.place(relx=0,rely=0, relwidth=1, relheight=1)
```

```
def updata():

    root3.destroy()

def addb():

    root4.destroy()

main()

def upq():

    con = mycon.connect(host="localhost",user="root",password="1234",
database="ques")

    cur = con.cursor()

atopic = itopic.get()

aquesno = iquesno.get()

aques = iques.get()

aopt1 = iopt1.get()

aopt2 = iopt2.get()
```

```
aopt3 = iopt3.get()
```

```
aopt4 = iopt4.get()
```

```
acorrect = incorrect.get()
```

```
query = "UPDATE "+sub+" SET QUES ="+aques+",  
OPT1 = "+aopt1+", OPT2 = "+aopt2+", OPT3 = "+aopt3+",  
OPT4 = "+aopt4+", CORRECT = "+acorrect+" WHERE  
TOPIC = "+atopic+" AND QUESNO = "+aquesno+";"
```

```
try:
```

```
    cur.execute(query)
```

```
    con.commit()
```

```
    messagebox.showinfo('Success','Question Has Been  
Updated successfully')
```

```
except:
```

```
    messagebox.showinfo("Error","Check Topic Name And  
Question NO. Carefully!!!! \n Maybe It is Wrong Or You Have  
Entered Wrong Data")
```

```
root4.destroy()
```

```
main()
```

```
root4 = Tk()
```

```
root4.title("Add Question in Question Bank")
```

```
root4.geometry("1000x700")
```

```
itopic = StringVar()
```

```
i quesno = StringVar()
```

```
i ques = StringVar()
```

```
i opt1 = StringVar()
```

```
i opt2 = StringVar()
```

```
i opt3 = StringVar()
```

```
i opt4 = StringVar()
```

```
i correct = StringVar()
```

```
labelFrame = Frame(root4,bg='black')
```

```
labelFrame.place(relx=0.1,rely=0.1,relwidth=0.8,relheight=0.75  
)
```

```
lb1 = Label(labelFrame,text="Topic (You want to Update) : ",  
bg='black', fg='white')
```

```
lb1.place(relx=0.05,rely=0.1, relheight=0.05)
```

```
char1 = Entry(labelFrame,textvariable=itopic)
```

```
char1.place(relx=0.3,rely=0.1, relwidth=0.62, relheight=0.04)
```

```
lb2 = Label(labelFrame,text="Question No. (You want to  
Update) : ", bg='black', fg='white')
```

```
lb2.place(relx=0.05,rely=0.2, relheight=0.05)
```

```
char2 = Entry(labelFrame,textvariable=iquesno)
```

```
char2.place(relx=0.3,rely=0.2, relwidth=0.62, relheight=0.04)
```

```
lb3 = Label(labelFrame,text="Question : ", bg='black',
fg='white')
```

```
lb3.place(relx=0.05,rely=0.3, relheight=0.05)
```

```
char3 = Entry(labelFrame,textvariable=i ques)
```

```
char3.place(relx=0.3,rely=0.3, relwidth=0.62, relheight=0.04)
```

```
lb4 = Label(labelFrame,text="Option 1 : ", bg='black',
fg='white')
```

```
lb4.place(relx=0.05,rely=0.4, relheight=0.05)
```

```
char4 = Entry(labelFrame,textvariable=iopt1)
```

```
char4.place(relx=0.3,rely=0.4, relwidth=0.62, relheight=0.04)
```

```
lb5 = Label(labelFrame,text="Option 2 : ", bg='black',
fg='white')
```

```
lb5.place(relx=0.05,rely=0.5, relheight=0.05)
```

```
char5 = Entry(labelFrame,textvariable=iopt2)
```

```
char5.place(relx=0.3,rely=0.5, relwidth=0.62, relheight=0.04)
```

```
lb6 = Label(labelFrame,text="Option 3 : ", bg='black',  
fg='white')
```

```
lb6.place(relx=0.05,rely=0.6, relheight=0.05)
```

```
char6 = Entry(labelFrame,textvariable=iopt3)
```

```
char6.place(relx=0.3,rely=0.6, relwidth=0.62, relheight=0.04)
```

```
lb7 = Label(labelFrame,text="Option 4 : ", bg='black',  
fg='white')
```

```
lb7.place(relx=0.05,rely=0.7, relheight=0.05)
```

```
char7 = Entry(labelFrame,textvariable=iopt4)
```

```
char7.place(relx=0.3,rely=0.7, relwidth=0.62, relheight=0.04)
```

```
lb8 = Label(labelFrame,text="Correct Answer : ", bg='black',  
fg='white')
```

```
lb8.place(relx=0.05,rely=0.8, relheight=0.05)
```

```
char8 = Entry(labelFrame,textvariable=iincorrect)
```

```
char8.place(relx=0.3,rely=0.8 , relwidth=0.62, relheight=0.04)
```

```
SubmitBtn = Button(root4,text="SUBMIT",bg='#d1ccc0',  
fg='black',command=upq)
```

```
SubmitBtn.place(relx=0.28,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
BackBtn = Button(root4,text="BACK",bg='#f7f1e3',  
fg='black', command=addb)
```

```
BackBtn.place(relx=0.53,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
def dele():
    root3.destroy()

def deb():
    root4.destroy()

main()

def deq():
    con =
    mycon.connect(host="localhost",user="root",password="1234",
    database="ques")
    cur = con.cursor()

    atopic = itopic.get()
    aquesno = iquesno.get()

query = "DELETE FROM "+sub+" WHERE TOPIC =
""+atopic+" AND QUESNO = "+aquesno+";"
```

```
try:  
  
    cur.execute(query)  
  
    con.commit()  
  
    messagebox.showinfo('Success','Question Has Been  
Deleted successfully')  
  
except:  
  
    messagebox.showinfo("Error","Check Topic Name And  
Question NO. Carefully!!!! \n Maybe It is Wrong Or You Have  
Entered Wrong Data")  
  
    root4.destroy()  
  
main()  
  
  
  
  
root4 = Tk()  
  
root4.title("Delete a Question from Question Bank")  
  
root4.geometry("1000x500")
```

```
iTopic = StringVar()
```

iquesno = StringVar()

```
labelFrame = Frame(root4,bg='black')
```

```
labelFrame.place(relx=0.1,rely=0.1,relwidth=0.8,relheight=0.75  
)  
)
```

```
lb1 = Label(labelFrame,text="Topic (You want to Delete) : ",  
bg='black', fg='white')
```

lb1.place(relx=0.05,rely=0.2, relheight=0.1)

```
char1 = Entry(labelFrame,textvariable=itopic)
```

```
char1.place(relx=0.3,rely=0.2, relwidth=0.62, relheight=0.1)
```

```
lb2 = Label(labelFrame,text="Question No. (You want to  
Delete) : ", bg='black', fg='white')
```

```
lb2.place(relx=0.05,rely=0.5, relheight=0.1)
```

```
char2 = Entry(labelFrame,textvariable=iquesno)
```

```
char2.place(relx=0.3,rely=0.5, relwidth=0.62, relheight=0.1)
```

```
SubmitBtn = Button(root4,text="SUBMIT",bg='#d1ccc0',  
fg='black',command=deq)
```

```
SubmitBtn.place(relx=0.28,rely=0.7,  
relwidth=0.18,relheight=0.08)
```

```
BackBtn = Button(root4,text="BACK",bg='#f7f1e3',  
fg='black', command=deb)
```

```
BackBtn.place(relx=0.53,rely=0.7,  
relwidth=0.18,relheight=0.08)
```

```
def add():
```

```
root3.destroy()
```

```
def addb():

    root4.destroy()

    main()

def addq():

    con =

    mycon.connect(host="localhost",user="root",password="1234",
database="ques")

    cur = con.cursor()

    atopic = itopic.get()

    aquesno = iquesno.get()

    aques = iques.get()

    aopt1 = iopt1.get()

    aopt2 = iopt2.get()

    aopt3 = iopt3.get()

    aopt4 = iopt4.get()

    acorrect = incorrect.get()
```

```
query = "INSERT INTO "+sub+
VALUES(""+atopic+"','"+aquesno+"','"+aques+"','"+aopt1+"','"++
aopt2+"','"+aopt3+"','"+aopt4+"','"+acorrect+"")"
```

```
try:
```

```
    cur.execute(query)
```

```
    con.commit()
```

```
    messagebox.showinfo('Success','Question added
successfully')
```

```
except:
```

```
    messagebox.showinfo("Error","Can't add data into
Database")
```

```
root4.destroy()
```

```
main()
```

```
root4 = Tk()
```

## root4.title("Add Question in Question Bank")

```
root4.geometry("1000x700")
```

```
iTopic = StringVar()
```

```
iquesno = StringVar()
```

```
iques = StringVar()
```

```
iOpt1 = StringVar()
```

```
iOpt2 = StringVar()
```

```
iOpt3 = StringVar()
```

```
iOpt4 = StringVar()
```

```
iincorrect = StringVar()
```

```
labelFrame = Frame(root4,bg='black')
```

```
labelFrame.place(relx=0.1,rely=0.1,relwidth=0.8,relheight=0.75  
)  
)
```

```
lb1 = Label(labelFrame,text="Topic : ", bg='black',  
fg='white')
```

```
lb1.place(relx=0.05,rely=0.1, relheight=0.05)
```

```
char1 = Entry(labelFrame,textvariable=itopic)
```

```
char1.place(relx=0.3,rely=0.1, relwidth=0.62, relheight=0.04)
```

```
lb2 = Label(labelFrame,text="Question Number : ",  
bg='black', fg='white')
```

```
lb2.place(relx=0.05,rely=0.2, relheight=0.05)
```

```
char2 = Entry(labelFrame,textvariable=iquesno)
```

```
char2.place(relx=0.3,rely=0.2, relwidth=0.62, relheight=0.04)
```

```
lb3 = Label(labelFrame,text="Question : ", bg='black',  
fg='white')
```

```
lb3.place(relx=0.05,rely=0.3, relheight=0.05)
```

```
char3 = Entry(labelFrame,textvariable=i ques)
char3.place(relx=0.3,rely=0.3, relwidth=0.62, relheight=0.04)
```

```
lb4 = Label(labelFrame,text="Option 1 : ", bg='black',
fg='white')
lb4.place(relx=0.05,rely=0.4, relheight=0.05)
```

```
char4 = Entry(labelFrame,textvariable=io pt1)
char4.place(relx=0.3,rely=0.4, relwidth=0.62, relheight=0.04)
```

```
lb5 = Label(labelFrame,text="Option 2 : ", bg='black',
fg='white')
lb5.place(relx=0.05,rely=0.5, relheight=0.05)
```

```
char5 = Entry(labelFrame,textvariable=io pt2)
char5.place(relx=0.3,rely=0.5, relwidth=0.62, relheight=0.04)
```

```
lb6 = Label(labelFrame,text="Option 3 : ", bg='black',
fg='white')
```

```
lb6.place(relx=0.05,rely=0.6, relheight=0.05)
```

```
char6 = Entry(labelFrame,textvariable=iopt3)
```

```
char6.place(relx=0.3,rely=0.6, relwidth=0.62, relheight=0.04)
```

```
lb7 = Label(labelFrame,text="Option 4 : ", bg='black',
fg='white')
```

```
lb7.place(relx=0.05,rely=0.7, relheight=0.05)
```

```
char7 = Entry(labelFrame,textvariable=iopt4)
```

```
char7.place(relx=0.3,rely=0.7, relwidth=0.62, relheight=0.04)
```

```
lb8 = Label(labelFrame,text="Correct Answer : ", bg='black',
fg='white')
```

```
lb8.place(relx=0.05,rely=0.8, relheight=0.05)
```

```
char8 = Entry(labelFrame,textvariable=iincorrect)
```

```
char8.place(relx=0.3,rely=0.8 , relwidth=0.62, relheight=0.04)
```

```
SubmitBtn = Button(root4,text="SUBMIT",bg='#d1ccc0',  
fg='black',command=addq)
```

```
SubmitBtn.place(relx=0.28,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
BackBtn = Button(root4,text="BACK",bg='#f7f1e3',  
fg='black', command=addb)
```

```
BackBtn.place(relx=0.53,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
def maths():
```

```
    def mathsB():
```

```
root1.destroy()
```

```
main()
```

```
global sub,root1
```

```
root.destroy()
```

```
root1 = Tk()
```

```
root1.title("Maths Question Bank")
```

```
root1.geometry("600x700")
```

```
sub="Maths"
```

```
Canvas1 = Canvas(root1)
```

```
Canvas1.config(bg="#ffff00")
```

```
Canvas1.pack(expand=True,fill=BOTH)
```

```
btn1 = Button(root1,text="Topic - Relations",bg='#ffbb00',  
fg='white', command=rel)
```

```
btn1.place(relx=0.28,rely=0.4, relwidth=0.45,relheight=0.1)
```

```
btn2 = Button(root1,text="Topic -  
Trigonometry",bg='#ffbb00', fg='white', command=trigo)
```

```
btn2.place(relx=0.28,rely=0.5, relwidth=0.45,relheight=0.1)
```

```
btn3 = Button(root1,text="Topic - Probability",bg='#ffbb00',  
fg='white', command=proba)
```

```
btn3.place(relx=0.28,rely=0.6, relwidth=0.45,relheight=0.1)
```

```
btn4 = Button(root1,text="Topic - Permutations and  
Combinations",bg='#ffbb00', fg='white', command=comba)
```

```
btn4.place(relx=0.28,rely=0.7, relwidth=0.45,relheight=0.1)
```

```
btn5 = Button(root1,text="Topic - Linear  
Inequalities",bg='#ffbb00', fg='white', command=ineqa)
```

```
btn5.place(relx=0.28,rely=0.8, relwidth=0.45,relheight=0.1)
```

```
btn6 = Button(root1,text="Update Question  
Bank",bg='#03fcf0', fg='#b103fc', command=update)  
btn6.place(relx=0.28,rely=0.3, relwidth=0.45,relheight=0.1)
```

```
BackBtn = Button(root1,text="BACK",bg='#d1ccc0',  
fg='black',command=mathsb)  
BackBtn.place(relx=0.42,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
headingFrame1 = Frame(root1,bg="#ffbb00",bd=5)  
  
headingFrame1.place(relx=0.25,rely=0.1,relwidth=0.5,relheight  
=0.13)
```

```
headingLabel = Label(headingFrame1, text="Maths Question  
Bank", bg='black', fg='#ffff00', font=('Courier',15))  
headingLabel.place(relx=0,rely=0, relwidth=1, relheight=1)
```

```
def chem():

    def chemb():

        root1.destroy()

    main()

global sub,root1

root.destroy()

root1 = Tk()

root1.title("Chemistry Question Bank")

root1.geometry("600x700")

sub="Chem"

Canvas1 = Canvas(root1)

Canvas1.config(bg="#62fc03")

Canvas1.pack(expand=True,fill=BOTH)
```

```
btn1 = Button(root1,text="Topic - Solutions",bg='#43d41c',  
fg='white', command=sol)
```

```
btn1.place(relx=0.28,rely=0.4, relwidth=0.45,relheight=0.1)
```

```
btn2 = Button(root1,text="Topic -  
Electrochemistry",bg='#43d41c', fg='white', command=elect)
```

```
btn2.place(relx=0.28,rely=0.5, relwidth=0.45,relheight=0.1)
```

```
btn3 = Button(root1,text="Topic - Surface  
Chemistry",bg='#43d41c', fg='white', command=sur)
```

```
btn3.place(relx=0.28,rely=0.6, relwidth=0.45,relheight=0.1)
```

```
btn4 = Button(root1,text="Topic - Chemical  
Kinetics",bg='#43d41c', fg='white', command=kine)
```

```
btn4.place(relx=0.28,rely=0.7, relwidth=0.45,relheight=0.1)
```

```
btn5 = Button(root1,text="Topic - P-block",bg="#43d41c",
fg='white', command=pblock)
```

```
btn5.place(relx=0.28,rely=0.8, relwidth=0.45,relheight=0.1)
```

```
btn6 = Button(root1,text="Update Question
Bank",bg="#03fcf0', fg="#b103fc', command=update)
```

```
btn6.place(relx=0.28,rely=0.3, relwidth=0.45,relheight=0.1)
```

```
BackBtn = Button(root1,text="BACK",bg="#d1ccc0',
fg='black',command=chemb)
```

```
BackBtn.place(relx=0.42,rely=0.9,
relwidth=0.18,relheight=0.08)
```

```
headingFrame1 = Frame(root1,bg="#43d41c",bd=5)
```

```
headingFrame1.place(relx=0.25,rely=0.1,relwidth=0.5,relheight  
=0.13)
```

```
headingLabel = Label(headingFrame1, text="Chemistry  
Question Bank", bg='black', fg="#62fc03', font=('Courier',15))
```

```
headingLabel.place(relx=0,rely=0, relwidth=1, relheight=1)
```

```
def phy():
```

```
def phyb():
```

```
root1.destroy()
```

```
main()
```

```
global sub,root1
```

```
root.destroy()
```

```
root1 = Tk()
```

```
root1.title("Physics Question Bank")
```

```
root1.geometry("600x700")
```

```
sub="Phy"
```

```
Canvas1 = Canvas(root1)
```

```
Canvas1.config(bg="#fc03f0")
```

```
Canvas1.pack(expand=True,fill=BOTH)
```

```
btn1 = Button(root1,text="Topic - Electric charges and  
fields",bg='#b103fc', fg='white', command=charge)
```

```
btn1.place(relx=0.28,rely=0.4, relwidth=0.45,relheight=0.1)
```

```
btn2 = Button(root1,text="Topic - Electrostatic Potential and  
Capacitance",bg='#b103fc', fg='white', command=capa)
```

```
btn2.place(relx=0.28,rely=0.5, relwidth=0.45,relheight=0.1)
```

```
btn3 = Button(root1,text="Topic - Thermal properties of  
Matter",bg='#b103fc', fg='white', command=thermal)  
  
btn3.place(relx=0.28,rely=0.6, relwidth=0.45,relheight=0.1)
```

```
btn4 = Button(root1,text="Topic - Kinetic Theory of  
Gases",bg='#b103fc', fg='white', command=kinega)  
  
btn4.place(relx=0.28,rely=0.7, relwidth=0.45,relheight=0.1)
```

```
btn5 = Button(root1,text="Topic - Oscillations",bg='#b103fc',  
fg='white', command=oss)  
  
btn5.place(relx=0.28,rely=0.8, relwidth=0.45,relheight=0.1)
```

```
btn6 = Button(root1,text="Update Question  
Bank",bg='#03fcf0', fg='#b103fc', command=update)  
  
btn6.place(relx=0.28,rely=0.3, relwidth=0.45,relheight=0.1)
```

```
BackBtn = Button(root1,text="BACK",bg='#d1ccc0',  
fg='black',command=phyb)
```

```
BackBtn.place(relx=0.42,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
headingFrame1 = Frame(root1,bg="#b103fc",bd=5)
```

```
headingFrame1.place(relx=0.25,rely=0.1,relwidth=0.5,relheight  
=0.13)
```

```
headingLabel = Label(headingFrame1, text="Physics  
Question Bank", bg='black', fg='#fc03f0', font=('Courier',15))
```

```
headingLabel.place(relx=0,rely=0, relwidth=1, relheight=1)
```

```
def bio():
```

```
def biob():
```

```
root1.destroy()
```

```
main()
```

```
global sub,root1

root.destroy()

root1 = Tk()

root1.title("Biology Question Bank")

root1.geometry("600x700")

sub="Bio"

Canvas1 = Canvas(root1)

Canvas1.config(bg="#ff6e40")

Canvas1.pack(expand=True,fill=BOTH)

btn1 = Button(root1,text="Topic - Genetics",bg='#eb4f34',
fg='white', command=gen)

btn1.place(relx=0.28,rely=0.4, relwidth=0.45,relheight=0.1)
```

```
btn2 = Button(root1,text="Topic -  
Reproduction",bg="#eb4f34', fg='white', command=rep)  
  
btn2.place(relx=0.28,rely=0.5, relwidth=0.45,relheight=0.1)
```

```
btn3 = Button(root1,text="Topic - Reproductive  
health",bg="#eb4f34', fg='white', command=reh)  
  
btn3.place(relx=0.28,rely=0.6, relwidth=0.45,relheight=0.1)
```

```
btn4 = Button(root1,text="Topic - Living  
world",bg="#eb4f34', fg='white', command=liv)  
  
btn4.place(relx=0.28,rely=0.7, relwidth=0.45,relheight=0.1)
```

```
btn5 = Button(root1,text="Topic - Locomotion",bg="#eb4f34',  
fg='white', command=loco)  
  
btn5.place(relx=0.28,rely=0.8, relwidth=0.45,relheight=0.1)
```

```
btn6 = Button(root1,text="Update Question  
Bank",bg="#03fcf0', fg="#b103fc', command=update)
```

```
btn6.place(relx=0.28,rely=0.3, relwidth=0.45,relheight=0.1)
```

```
BackBtn = Button(root1,text="BACK",bg='#d1ccc0',  
fg='black',command=biob)
```

```
BackBtn.place(relx=0.42,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
headingFrame1 = Frame(root1,bg="#eb4f34",bd=5)
```

```
headingFrame1.place(relx=0.25,rely=0.1,relwidth=0.5,relheight  
=0.13)
```

```
headingLabel = Label(headingFrame1, text="Biology  
Question Bank", bg='black', fg='#ff6e40', font=('Courier',15))
```

```
headingLabel.place(relx=0,rely=0, relwidth=1, relheight=1)
```

```
def q1():
```

```
    global quesno
```

```
root2.destroy()

quesno="001"

if sub=="Maths":

    mathsq()

elif sub=="Phy":

    phyq()

elif sub=="Chem":

    chemq()

elif sub=="Bio":

    bioq()
```

```
def q2():

    global quesno

    root2.destroy()

    quesno="002"

    if sub=="Maths":

        mathsq()
```

elif sub=="Phy":

**phyq()**

elif sub=="Chem":

`chemq()`

elif sub=="Bio":

**bioq()**

```
def q3():
```

## global quesno

root2.destroy()

quesno="003"

```
if sub=="Maths":
```

**mathsq()**

elif sub=="Phy":

**phyq()**

elif sub=="Chem":

`chemq()`

```
elif sub=="Bio":
```

```
    bioq()
```

```
def q4():
```

```
    global quesno
```

```
    root2.destroy()
```

```
    quesno="004"
```

```
    if sub=="Maths":
```

```
        mathsq()
```

```
    elif sub=="Phy":
```

```
        phyq()
```

```
    elif sub=="Chem":
```

```
        chemq()
```

```
    elif sub=="Bio":
```

```
        bioq()
```

```
def q5():
```

```
global quesno  
root2.destroy()  
quesno="005"  
if sub=="Maths":  
    mathsq()  
elif sub=="Phy":  
    phyq()  
elif sub=="Chem":  
    chemq()  
elif sub=="Bio":  
    bioq()  
  
def q6():  
    global quesno  
    root2.destroy()  
    quesno="006"  
    if sub=="Maths":
```

```
mathsq()

elif sub=="Phy":

    phyq()

elif sub=="Chem":

    chemq()

elif sub=="Bio":

    bioq()

def q7():

    global quesno

    root2.destroy()

    quesno="007"

    if sub=="Maths":

        mathsq()

    elif sub=="Phy":

        phyq()

    elif sub=="Chem":
```

```
chemq()  
  
elif sub=="Bio":  
  
    bioq()  
  
  
  
def q8():  
  
    global quesno  
  
    root2.destroy()  
  
    quesno="008"  
  
    if sub=="Maths":  
  
        mathsq()  
  
    elif sub=="Phy":  
  
        phyq()  
  
    elif sub=="Chem":  
  
        chemq()  
  
    elif sub=="Bio":  
  
        bioq()
```

```
def quesnumber():

    global root2

def quesnob():

    root2.destroy()

    main()

root2 = Tk()

root2.title("Questions")

root2.geometry("600x700")



Canvas1 = Canvas(root2)

Canvas1.config(bg="#34eb99")

Canvas1.pack(expand=True,fill=BOTH)





btn1 = Button(root2,text="Question 1",bg='black', fg='white',
command=q1)

btn1.place(relx=0.28,rely=0.1, relwidth=0.45,relheight=0.1)
```

```
btn2 = Button(root2,text="Question 2",bg='black', fg='white',  
command=q2)
```

```
btn2.place(relx=0.28,rely=0.2, relwidth=0.45,relheight=0.1)
```

```
btn3 = Button(root2,text="Question 3",bg='black', fg='white',  
command=q3)
```

```
btn3.place(relx=0.28,rely=0.3, relwidth=0.45,relheight=0.1)
```

```
btn4 = Button(root2,text="Question 4",bg='black', fg='white',  
command=q4)
```

```
btn4.place(relx=0.28,rely=0.4, relwidth=0.45,relheight=0.1)
```

```
btn5 = Button(root2,text="Question 5",bg='black', fg='white',  
command=q5)
```

```
btn5.place(relx=0.28,rely=0.5, relwidth=0.45,relheight=0.1)
```

```
btn6 = Button(root2,text="Question 6",bg='black', fg='white',  
command=q6)
```

```
btn6.place(relx=0.28,rely=0.6, relwidth=0.45,relheight=0.1)
```

```
btn7 = Button(root2,text="Question 7",bg='black', fg='white',  
command=q7)
```

```
btn7.place(relx=0.28,rely=0.7, relwidth=0.45,relheight=0.1)
```

```
btn8 = Button(root2,text="Question 8",bg='black', fg='white',  
command=q8)
```

```
btn8.place(relx=0.28,rely=0.8, relwidth=0.45,relheight=0.1)
```

```
BackBtn = Button(root2,text="BACK",bg='#d1ccc0',  
fg='black',command=quesnob)
```

```
BackBtn.place(relx=0.42,rely=0.9,  
relwidth=0.18,relheight=0.08)
```

```
def mathsq():
```

```
def mathsqb():

    root5.destroy()

    main()

con = 

mycon.connect(host="localhost",user="root",password="1234",
database="ques")

cur = con.cursor(buffered=True)

root5=Tk()

root5.title("Questions")

root5.geometry('1300x250')

mathsgt = "select ques from maths where topic =
"+topic+"and quesno = "+quesno

cur.execute(mathsgt)

questions=cur.fetchone()
```

```
option= "select opt1,opt2,opt3,opt4,correct from maths where  
topic ="+topic+"and quesno = "+quesno
```

```
cur.execute(option)
```

```
options=cur.fetchone()
```

```
headingLabel = Label(root5, text=questions, bg='orange',  
fg='white', font=('Courier',11))
```

```
headingLabel.pack()
```

```
lstbox=Listbox(root5,bg="white",fg="black",font=('Courier',11),  
selectmode=SINGLE,width=70)
```

```
lstbox.pack()
```

```
for i in options:
```

```
lstbox.insert(END,i)
```

```
BackBtn = Button(root5,text="BACK",bg='#d1ccc0',  
fg='black',command=mathsqb)
```

```
BackBtn.place(relx=0.42,rely=0.6,  
relwidth=0.18,relheight=0.08)
```

```
def phyq():
```

```
    def phyqb():
```

```
        root5.destroy()
```

```
    main()
```

```
con =
```

```
mycon.connect(host="localhost",user="root",password="1234",  
database="ques")
```

```
cur = con.cursor(buffered=True)
```

```
root5=Tk()
```

```
root5.title("Questions")
```

```
root5.geometry('1300x250')
```

```
phyget = "select ques from phy where topic = "+topic+"and  
quesno = "+quesno
```

```
cur.execute(phyget)
```

```
questions=cur.fetchone()
```

```
option= "select opt1,opt2,opt3,opt4,correct from phy where  
topic =" +topic+ "and quesno = "+quesno
```

```
cur.execute(option)
```

```
options=cur.fetchone()
```

```
headingLabel = Label(root5, text=questions, bg='orange',  
fg='white', font=('Courier',11))
```

```
headingLabel.pack()
```

```
lstbox=Listbox(root5,bg="white",fg="black",font=('Courier',11),  
selectmode=SINGLE,width=70)
```

```
lstbox.pack()
```

```
for i in options:
```

```
lstbox.insert(END,i)
```

```
BackBtn = Button(root5,text="BACK",bg='#d1ccc0',  
fg='black',command=phyqb)
```

```
BackBtn.place(relx=0.42,rely=0.6,  
relwidth=0.18,relheight=0.08)
```

```
def chemq():
```

```
    def chemqb():
```

```
        root5.destroy()
```

```
    main()
```

```
con =
```

```
mycon.connect(host="localhost",user="root",password="1234",  
database="ques")
```

```
cur = con.cursor(buffered=True)
```

```
root5=Tk()

root5.title("Questions")

root5.geometry('1300x250')

chemget = "select ques from chem where topic =
"+topic+"and quesno = "+quesno

cur.execute(chemget)

questions=cur.fetchone()

option= "select opt1,opt2,opt3,opt4,correct from chem where
topic =" +topic+"and quesno = "+quesno

cur.execute(option)

options=cur.fetchone()

headingLabel = Label(root5, text=questions, bg='orange',
fg='white', font=('Courier',11))

headingLabel.pack()
```

```
lstbox=Listbox(root5,bg="white",fg="black",font=('Courier',11),  
selectmode=SINGLE,width=70)
```

```
lstbox.pack()
```

```
for i in options:
```

```
    lstbox.insert(END,i)
```

```
BackBtn = Button(root5,text="BACK",bg="#d1ccc0",  
fg='black',command=chemqb)
```

```
BackBtn.place(relx=0.42,rely=0.6,  
relwidth=0.18,relheight=0.08)
```

```
def bioq():
```

```
    def bioqb():
```

```
        root5.destroy()
```

```
    main()
```

```
con =  
mycon.connect(host="localhost",user="root",password="1234",  
database="ques")
```

```
cur = con.cursor(buffered=True)
```

```
root5=Tk()
```

```
root5.title("Questions")
```

```
root5.geometry('1300x250')
```

```
bioget = "select ques from bio where topic = "+topic+"and  
quesno = "+quesno
```

```
cur.execute(bioget)
```

```
questions=cur.fetchone()
```

```
option= "select opt1,opt2,opt3,opt4,correct from bio where  
topic ="+topic+"and quesno = "+quesno
```

```
cur.execute(option)
```

```
options=cur.fetchone()
```

```
headingLabel = Label(root5, text=questions, bg='orange',
fg='white', font=('Courier',11))

headingLabel.pack()
```

```
lstbox=Listbox(root5,bg="white",fg="black",font=('Courier',11),
selectmode=SINGLE,width=70)
```

```
lstbox.pack()
```

```
for i in options:
```

```
    lstbox.insert(END,i)
```

```
BackBtn = Button(root5,text="BACK",bg="#d1ccc0",
fg='black',command=bioqb)
```

```
BackBtn.place(relx=0.42,rely=0.6,
relwidth=0.18,relheight=0.08)
```

```
con =  
mycon.connect(host="localhost",user="root",password="1234",  
database="ques")
```

```
cur = con.cursor()
```

```
topic=""
```

```
quesno=""
```

```
sub=""
```

```
def main():
```

```
    global root
```

```
    root = Tk()
```

```
    root.title("Question Bank")
```

```
    root.geometry("600x700")
```

```
Canvas1 = Canvas(root)
```

```
Canvas1.config(bg="#eb8634")
```

```
Canvas1.pack(expand=True,fill=BOTH)
```

```
#ff6e40
```

```
headingFrame1 = Frame(root,bg="#b1eb34",bd=5)
```

```
headingFrame1.place(relx=0.2,rely=0.1,relwidth=0.6,relheight=0.16)
```

```
#FFBB00
```

```
headingLabel = Label(headingFrame1, text="Welcome to \n Question Bank", bg='black', fg='#e2eb34', font=('Courier',15))
```

```
headingLabel.place(relx=0,rely=0, relwidth=1, relheight=1)
```

```
btn1 = Button(root,text="Maths",bg='#34d9eb',  
fg='#5934eb',command=maths)
```

```
btn1.place(relx=0.28,rely=0.7, relwidth=0.45,relheight=0.1)
```

```
btn2 = Button(root,text="Chemistry",bg='#34d9eb',  
fg='#5934eb',command=chem)
```

```
btn2.place(relx=0.28,rely=0.5, relwidth=0.45,relheight=0.1,)
```

```
btn3 = Button(root,text="Physics",bg="#34d9eb",
fg="#5934eb", command=phy)

btn3.place(relx=0.28,rely=0.6, relwidth=0.45,relheight=0.1)

btn4 = Button(root,text="Biology",bg="#34d9eb",
fg="#5934eb", command=bio)

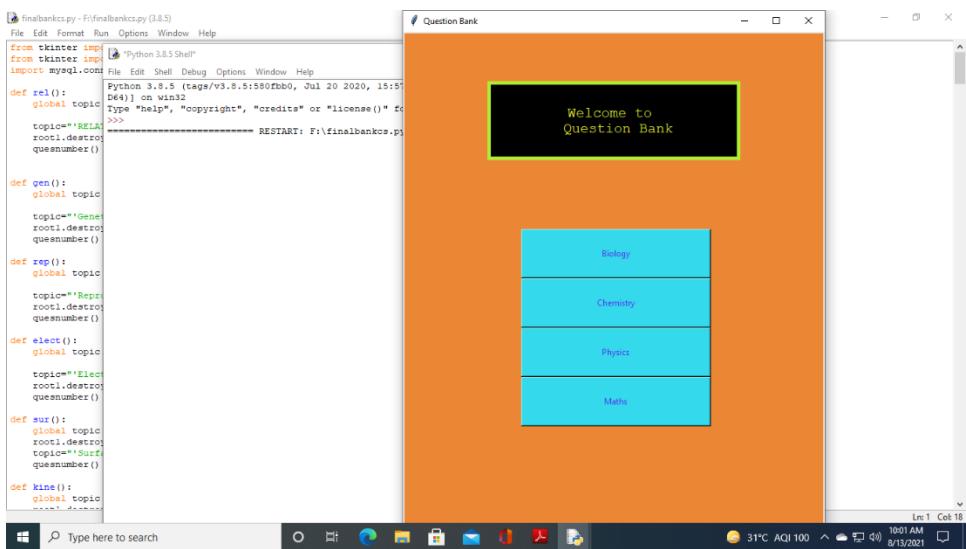
btn4.place(relx=0.28,rely=0.4, relwidth=0.45,relheight=0.1)

root.mainloop()

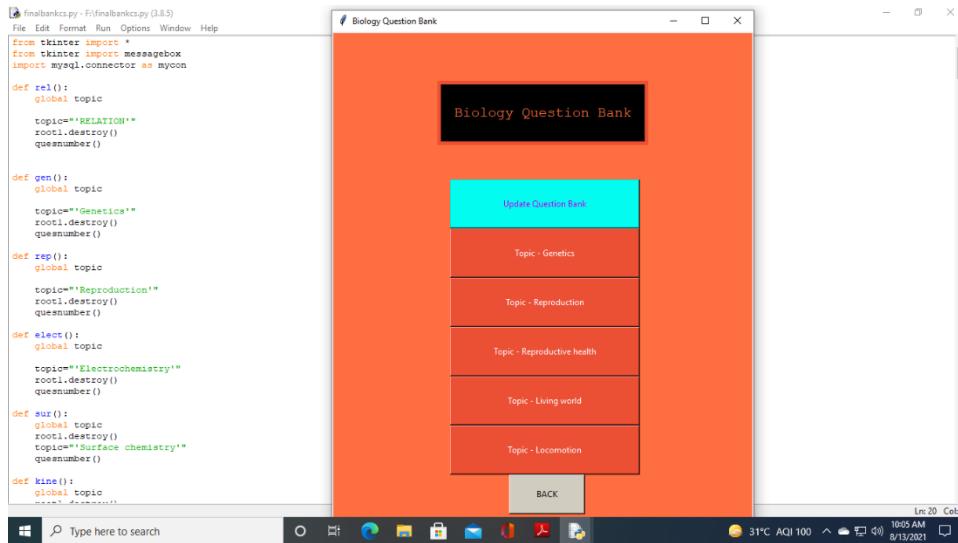
main()
```

# Working of the project

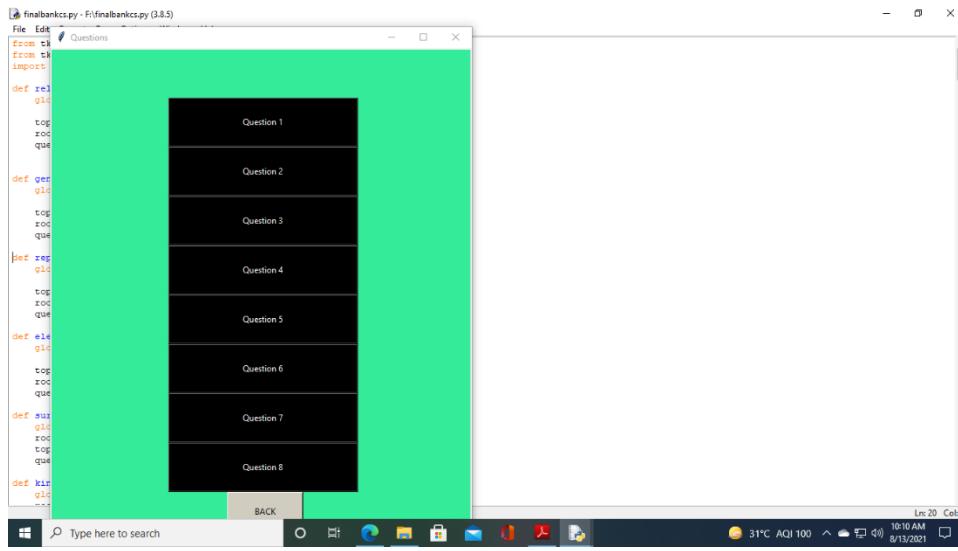
The first GUI interface that comes upon running the python code is shown below.



Upon clicking the button biology, the following window appears.

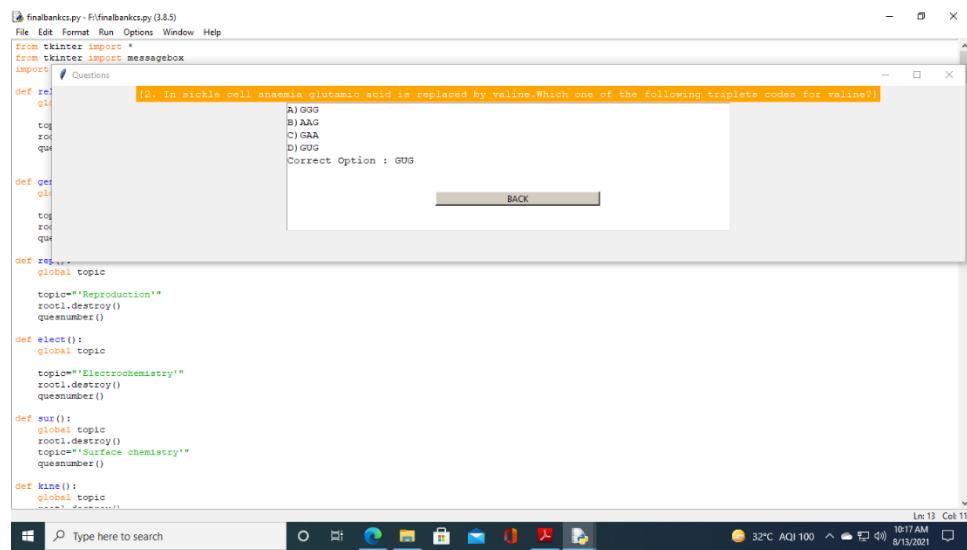
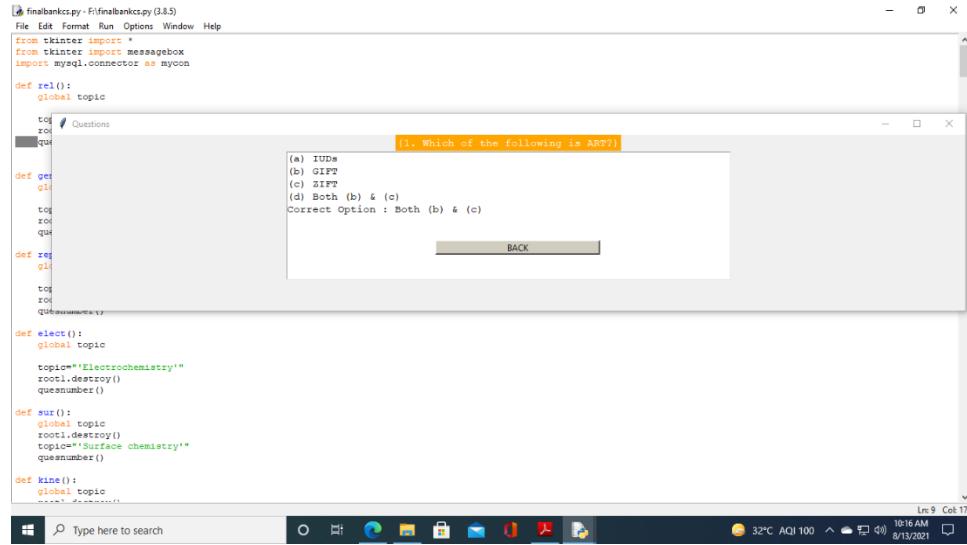


On clicking the buttons Topic-genetics, Topic-Reproduction, Topic-Reproductive Health, Topic-Living World, Topic-Locomotion shown in above image this window appears.



If we have chosen Topic-genetics then upon clicking the buttons Question1, Question2, Question3, Question4, Question5,

Question6, Question7, Question8 these windows will appear respectively.



```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Questions
from finalbankcs import *
def rep():
    global topic
    topic="Reproduction"
    root1.destroy()
    quesnumber()
def elect():
    global topic
    topic="Electrochemistry"
    root1.destroy()
    quesnumber()
def sur():
    global topic
    root1.destroy()
    topic="Surface chemistry"
    quesnumber()
def kine():
    global topic
    ..... destroy.....
```

(3. A person having genotype I<sup>A</sup> I<sup>B</sup> would show the blood group as AB. This is because of :)

- A) pleiotropy
- B) co-dominance
- C) segregation
- D) incomplete dominance

Correct Option : co-dominance

BACK

Ln: 13 Col: 11  
32°C AQI 100 10:18 AM 8/13/2021

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import mysql.connector as mycon
def rel():
    global topic
    topic="Reproduction"
    root1.destroy()
    quesnumber()
def ger():
    global topic
    topic="Electrochemistry"
    root1.destroy()
    quesnumber()
def req():
    global topic
    topic="Surface chemistry"
    root1.destroy()
    quesnumber()
def elect():
    global topic
    ..... destroy.....
```

(4. XX/XY type of sex determination is seen in :)

- A) platypus
- B) lizard
- C) cockroach
- D) peacock

Correct Option : peacock

BACK

Ln: 13 Col: 11  
32°C AQI 100 10:18 AM 8/13/2021

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Questions
from finalbankcs import *
def rep():
    global topic
    topic="Reproduction"
    root1.destroy()
    quesnumber()
def elect():
    global topic
    topic="Electrochemistry"
    root1.destroy()
    quesnumber()
def sur():
    global topic
    root1.destroy()
    topic="Surface chemistry"
    quesnumber()
def kine():
    global topic
    ..... destroy.....
```

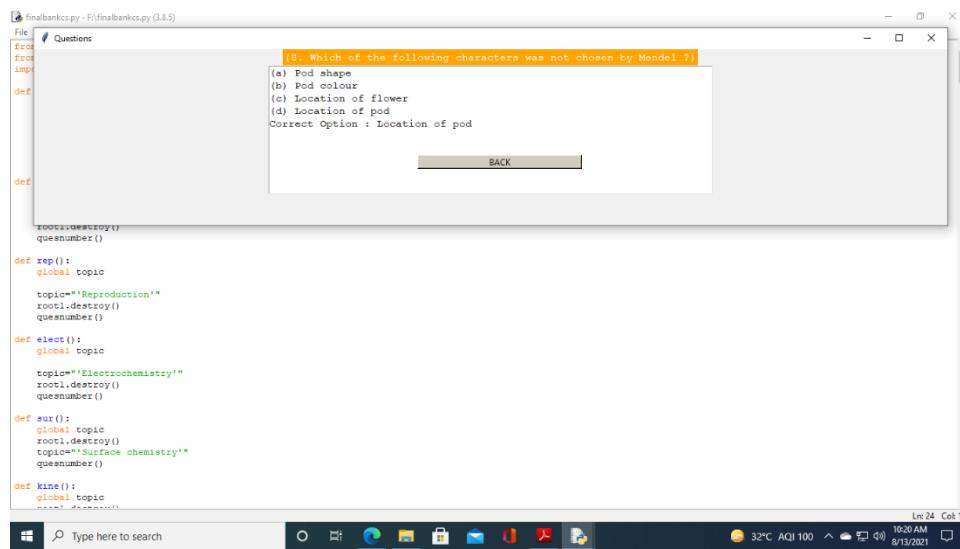
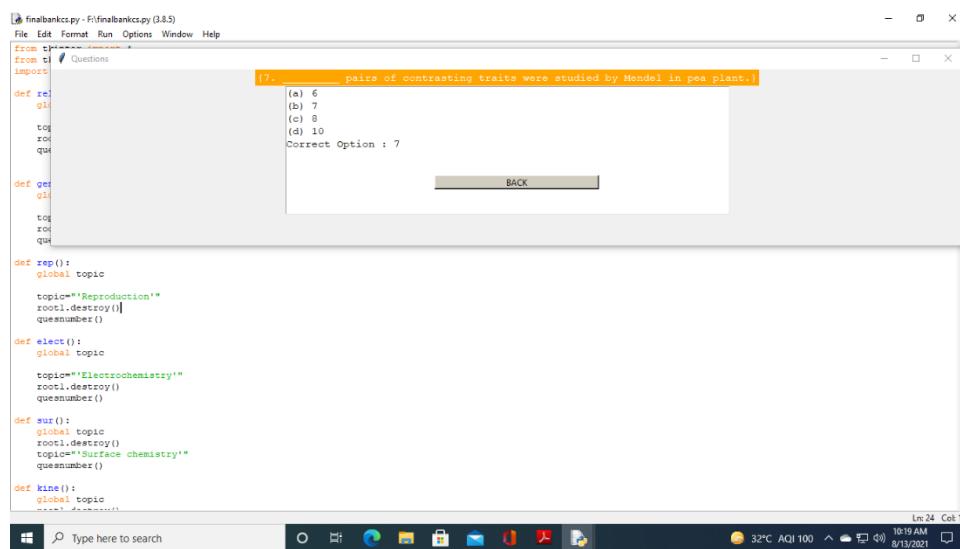
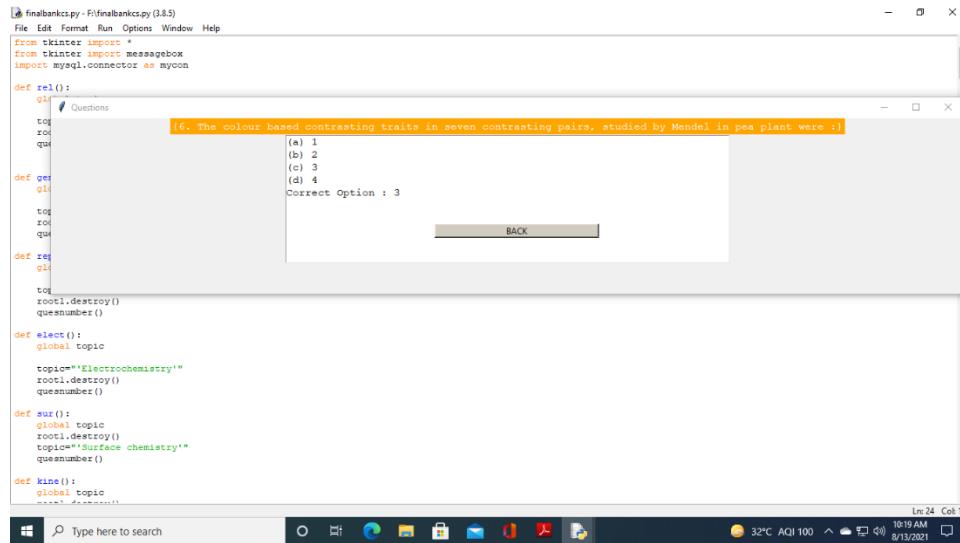
(5. Which of the following will not result in variations among siblings?)

- A) independent assortment of genes
- B) crossing over
- C) linkage
- D) mutation

Correct Option : linkage

BACK

Ln: 24 Col: 19  
32°C AQI 100 10:18 AM 8/13/2021



If we have chosen Topic-Reproduction then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.

```
File Edit Forma Run Options Window Help
from tkinter import *
from tkinter import messagebox
import mysql.connector as mycon

def sel():
    qid
    (1). Which of the following groups is formed only of the hermaphrodite organisms?
        (A) Earthworm, tapeworm, housefly, frog
        (B) Earthworm, tapeworm, sea horse, housefly
        (C) Earthworm, leech, sponge, roundworm
        (D) Earthworm, tapeworm, leech, sponge
    Correct Option : Earthworm, tapeworm, leech, sponge

def ger():
    qid
    tog
    rof
    que
    quj

def req():
    qid
    topic="Reproduction"
    root1.destroy()
    quesnumber()

def elect():
    global topic
    topic="Electrochemistry"
    root1.destroy()
    quesnumber()

def sur():
    global topic
    root1.destroy()
    topic="Surface chemistry"
    quesnumber()

def kine():
    global topic
    root1.destroy()

    BACK
```

```
finalbankscs.py - F:\finalbankscs.py (3.8.5)
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import mysql.connector as mycon
def rel():
    q1 = Questions
    t1q
    r1o
    q1u
        (a) Housefly
        (b) Butterfly
        (c) Ophioglossum
        (d) Onion
    def quer():
        q1l
        t1q
        r1o
        q1u
    def req():
        q1l
        t1q
        r1o
        q1u
        root.destroy()
        quesnumber()
    def elect():
        global topic
        topic="Electrochemistry"
        root.destroy()
        quesnumber()
    def sur():
        global topic
        root.destroy()
        topic="Surface chemistry"
        quesnumber()
    def kine():
        global topic
        .....  
Ln: 24 Col: 19
32°C AQI 100 10:22 AM 8/13/2021
```

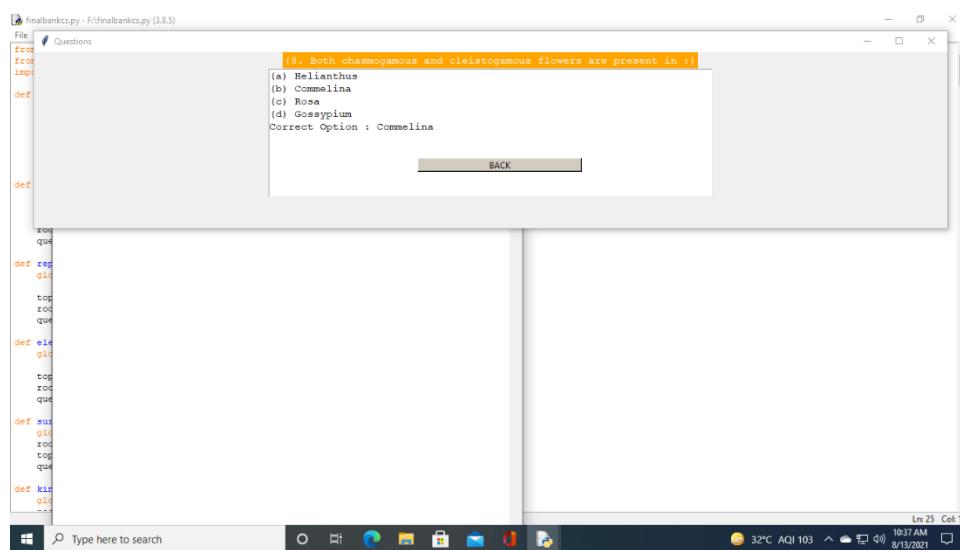
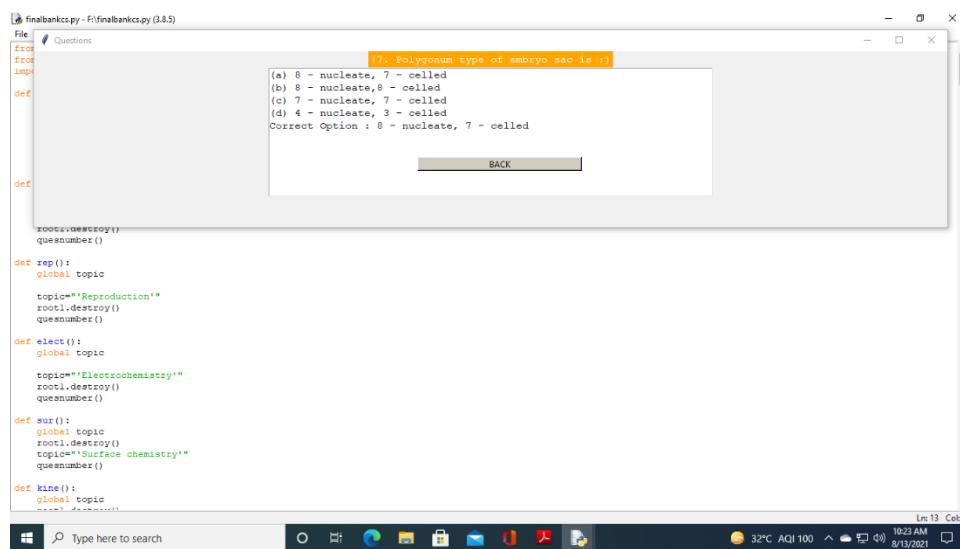
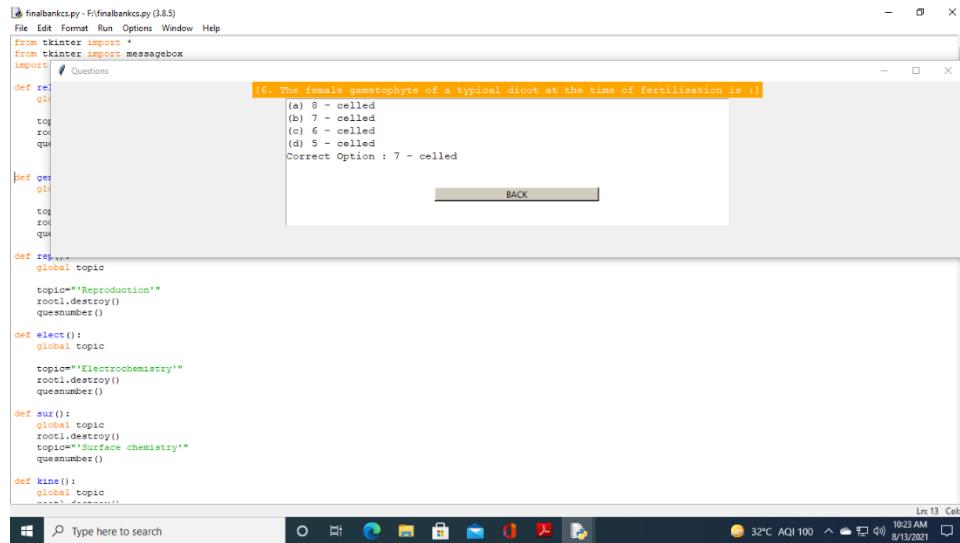
Questions  
(3. Which of the following organisms has the highest number of chromosomes?)  
(a) Housefly  
(b) Butterfly  
(c) Ophioglossum  
(d) Onion  
Correct Option : Ophioglossum  
BACK

```
finalbankscs.py - F:\finalbankscs.py (3.8.5)
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import mysql.connector as mycon
def rel():
    q1 = Questions
    t1q
    r1o
    q1u
        (a) 40
        (b) 30
        (c) 20
        (d) 10
    def quer():
        q1l
        t1q
        r1o
        q1u
    def req():
        q1l
        t1q
        r1o
        q1u
        root.destroy()
        quesnumber()
    def elect():
        global topic
        topic="Reproduction"
        root.destroy()
        quesnumber()
    def sur():
        global topic
        root.destroy()
        topic="Surface chemistry"
        quesnumber()
    def kine():
        global topic
        .....  
Ln: 24 Col: 19
32°C AQI 100 10:22 AM 8/13/2021
```

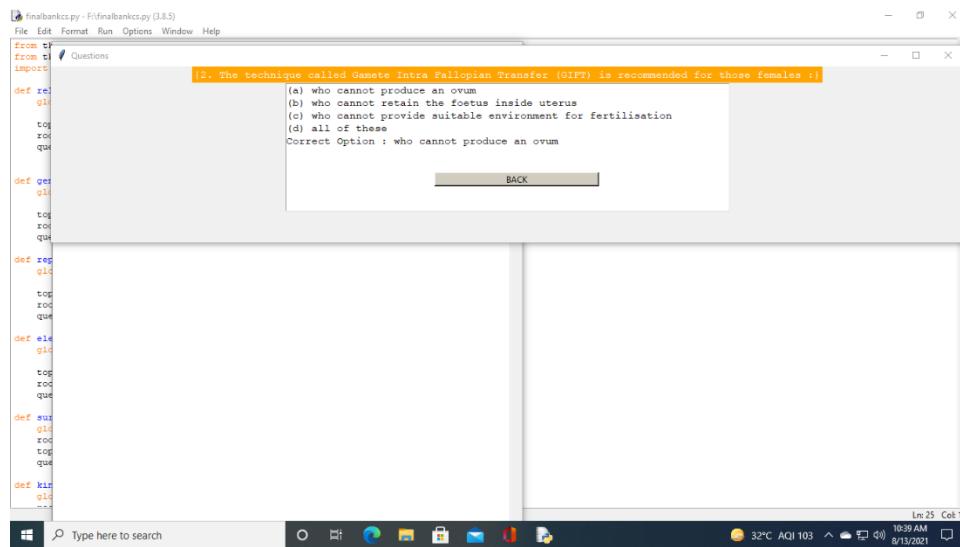
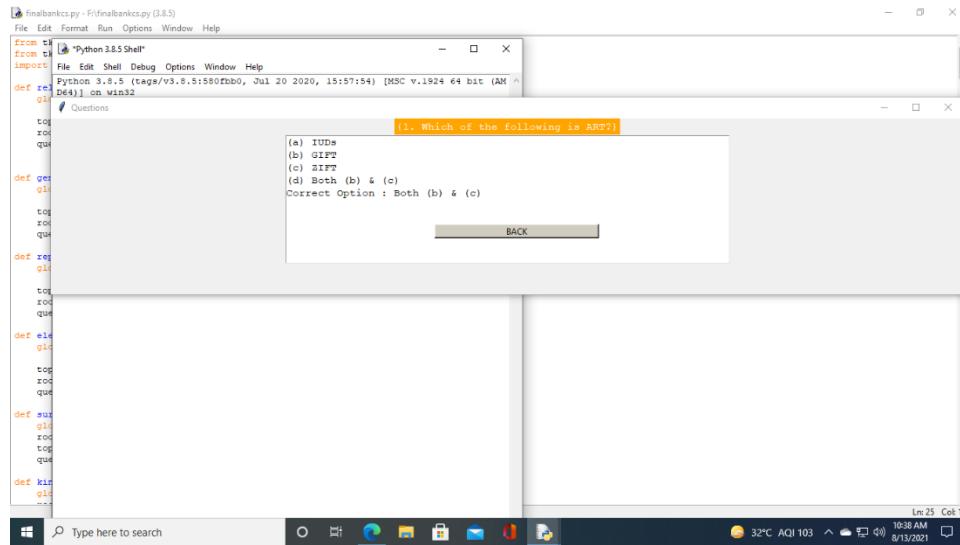
Questions  
(4. In maize, a meiocyte has 20 chromosomes. What will be the number of chromosomes in its somatic cell?)  
(a) 40  
(b) 30  
(c) 20  
(d) 10  
Correct Option : 20  
BACK

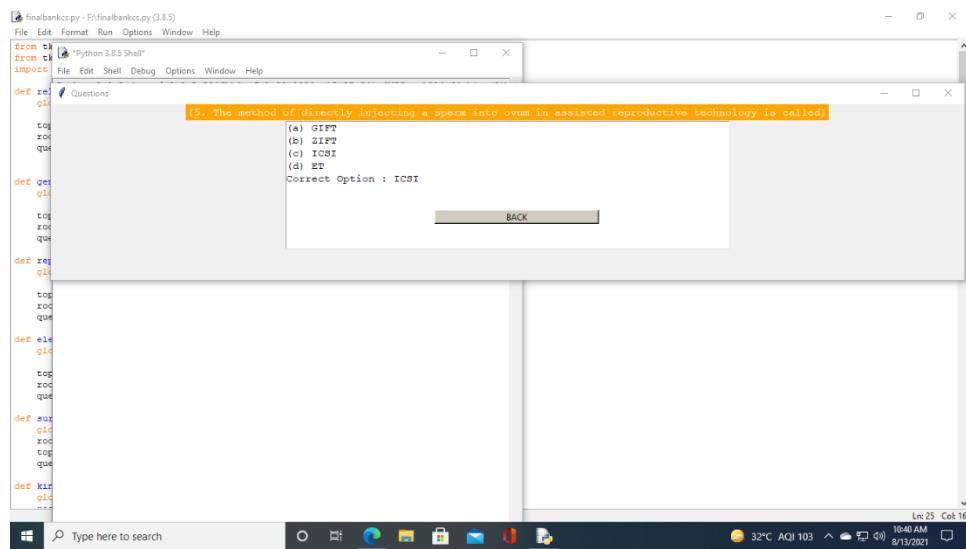
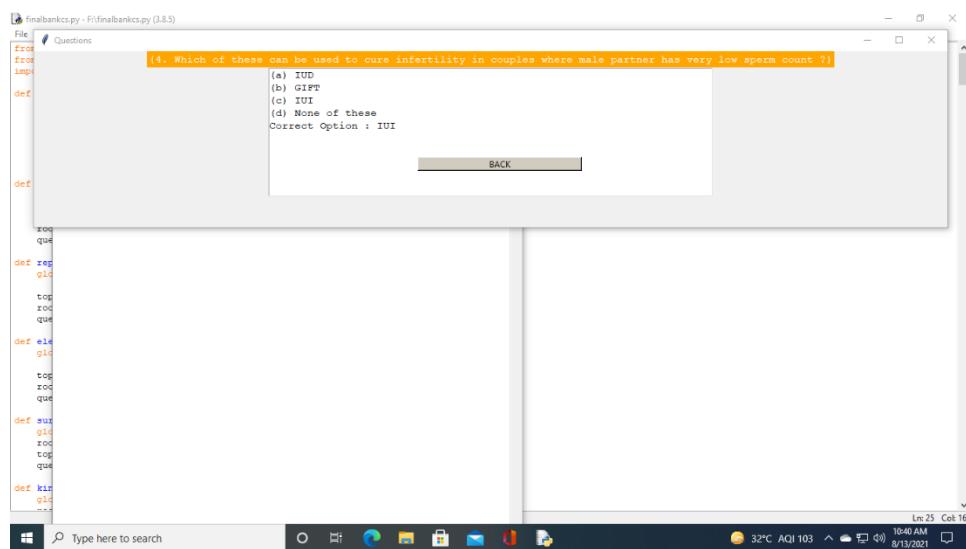
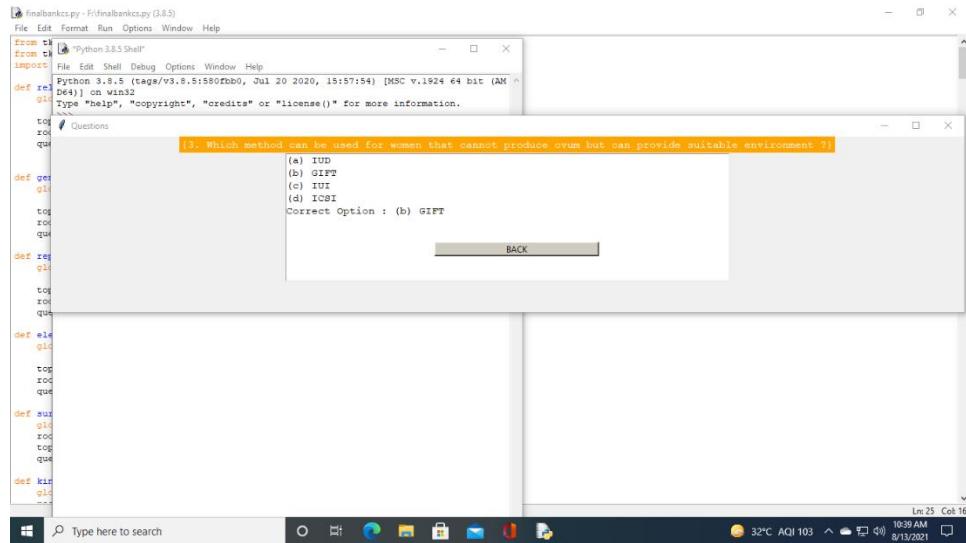
```
finalbankscs.py - F:\finalbankscs.py (3.8.5)
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import mysql.connector as mycon
def rel():
    global topic
    t1q
    r1o
    q1u
        (a) 300
        (b) 190
        (c) 95
        (d) 760
    def quer():
        q1l
        t1q
        r1o
        q1u
    def req():
        q1l
        t1q
        r1o
        q1u
        root.destroy()
        quesnumber()
    def elect():
        global topic
        topic="Electrochemistry"
        root.destroy()
        quesnumber()
    def sur():
        global topic
        root.destroy()
        topic="Surface chemistry"
        quesnumber()
    def kine():
        global topic
        .....  
Ln: 13 Col: 0
32°C AQI 100 10:23 AM 8/13/2021
```

Questions  
(5. If a butterfly has chromosome number 360 in its meiocyte (2n). What will be the chromosome number in its gamete?)  
(a) 300  
(b) 190  
(c) 95  
(d) 760  
Correct Option : 190  
BACK



If we have chosen Topic-Reproductive Health then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.





The screenshot shows a Windows desktop environment. In the center, there is a Python script named `finalbankcsc.py` open in a code editor. The script contains several functions: `req`, `que`, `reg`, `ele`, `sud`, and `kin`. A pop-up window titled "Questions" is displayed over the script. The window contains a question and four multiple-choice options:

(6. Increased IMR and decreased MMR in a population will :)

- (a) cause rapid increase in growth rate
- (b) result in decline in growth rate
- (c) not cause significant change in growth rate
- (d) result in an explosive population.

Below the options, it says "Correct Option : result in decline in growth rate". At the bottom of the pop-up is a "BACK" button. The taskbar at the bottom of the screen shows various pinned icons, and the system tray indicates the date as 8/13/2021 and the time as 10:40 AM.

```
finalbankccs.py - Python 3.8.5 Shell
File Edit Format Run Options Window Help
File Edit Shell Debug Options Window Help
Python 3.8.5 (tags/v3.8.5:fb0f0b0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AM
def reg():
    top
    rod
    que

def gen():
    top
    rod
    que

def req():
    top
    rod
    que

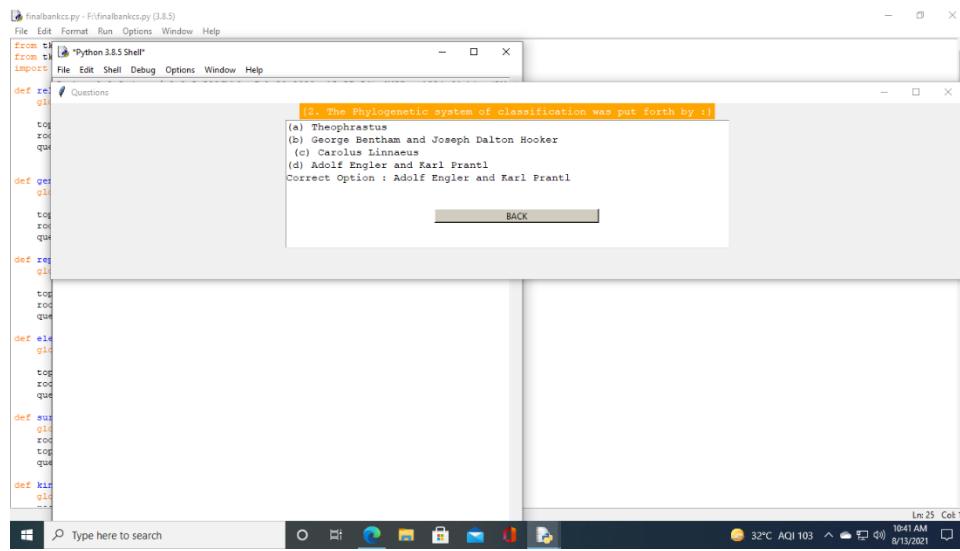
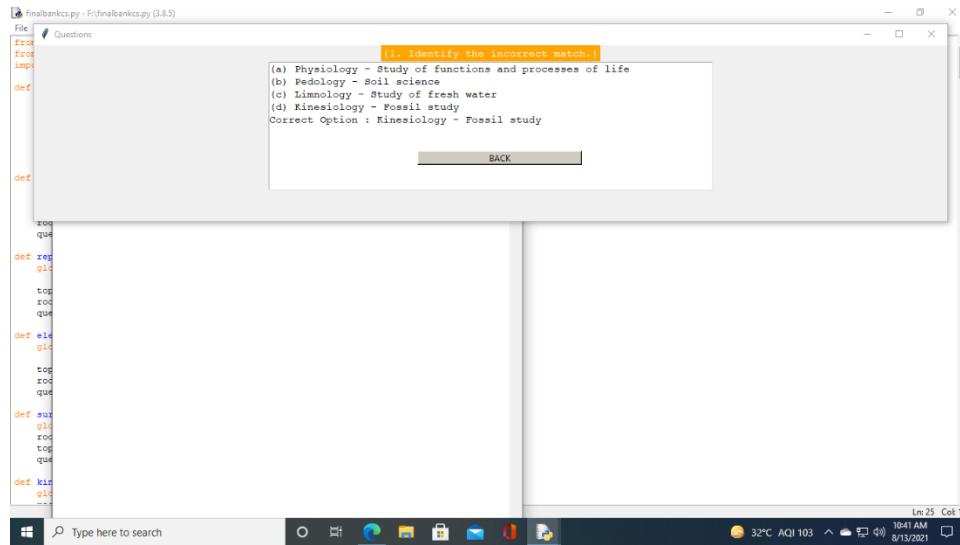
def ele():
    top
    rod
    que

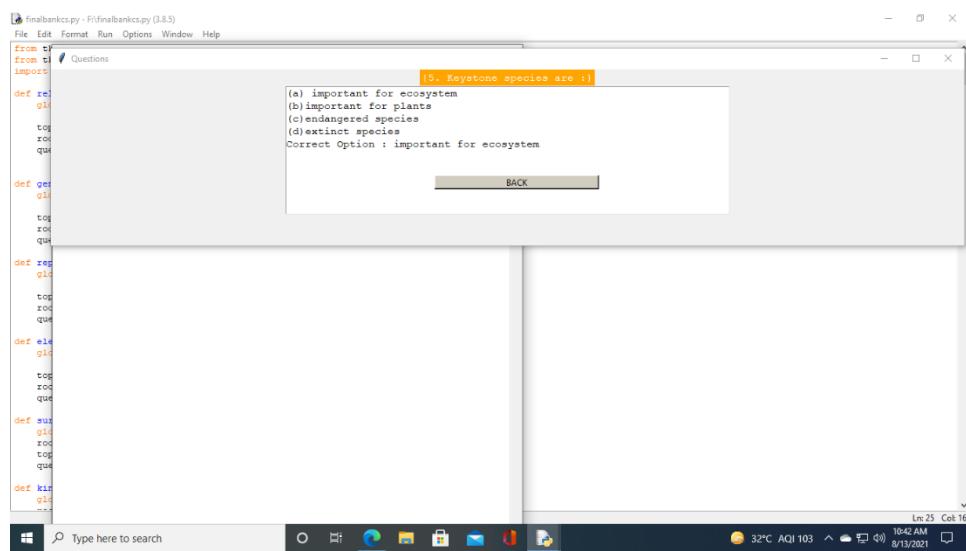
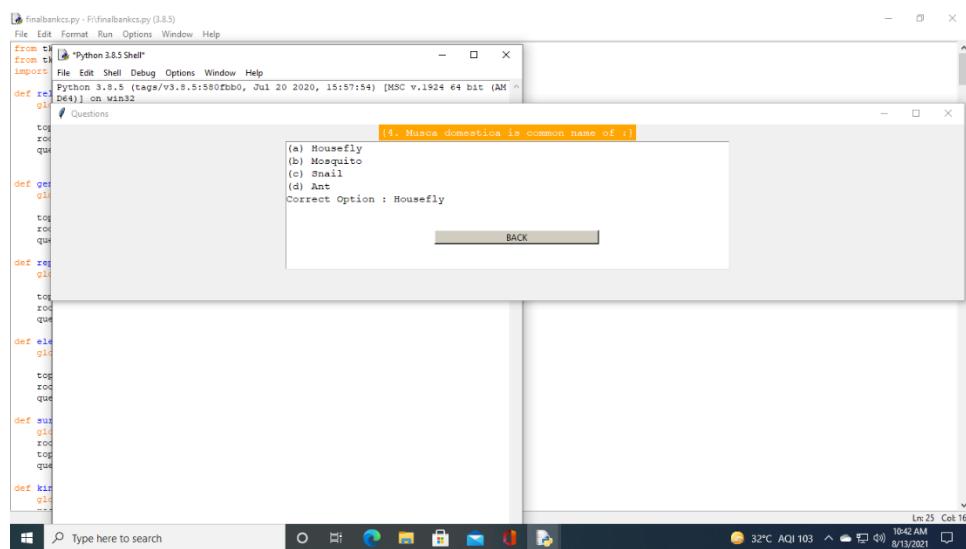
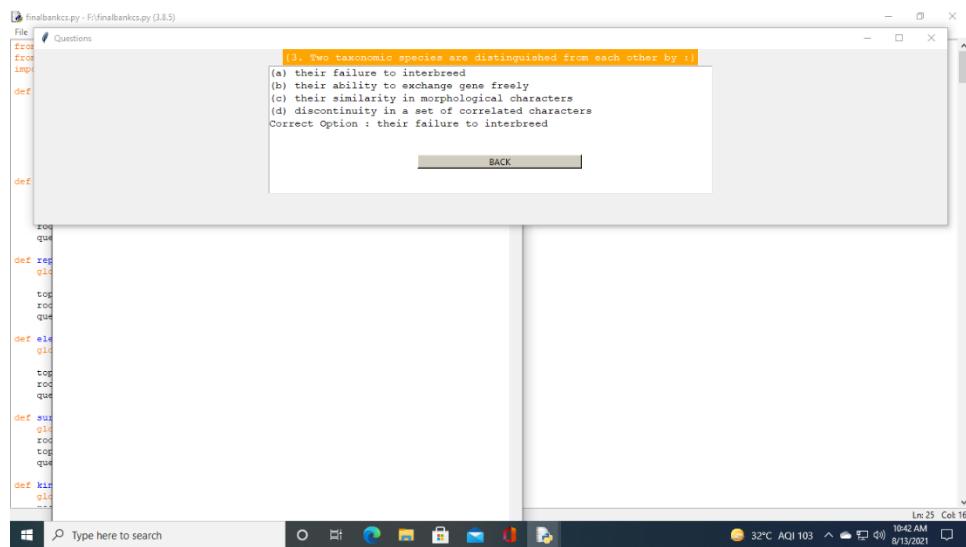
def sup():
    top
    rod
    que

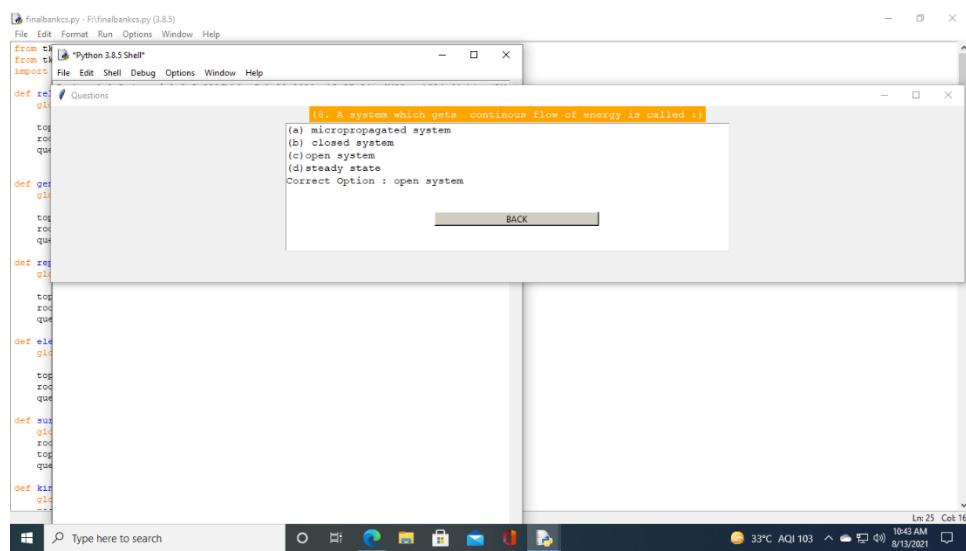
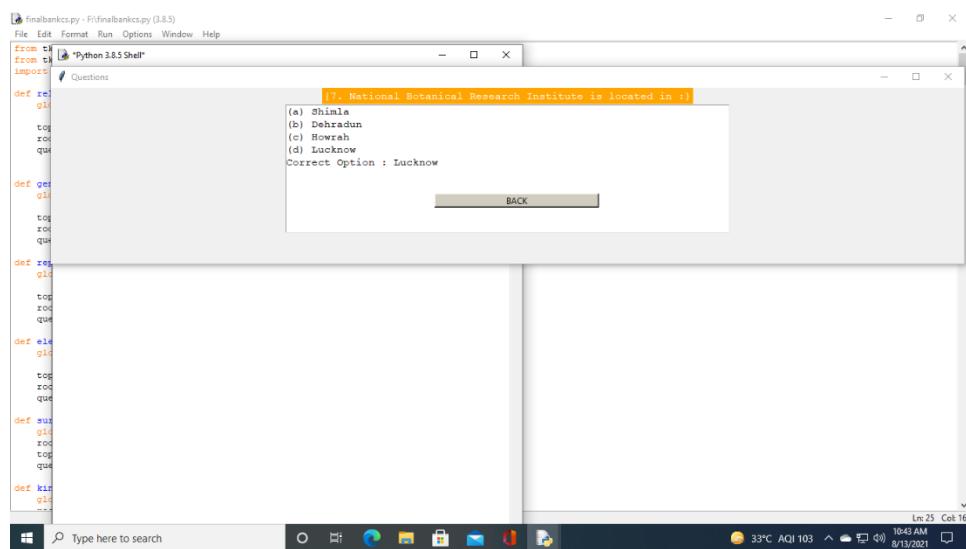
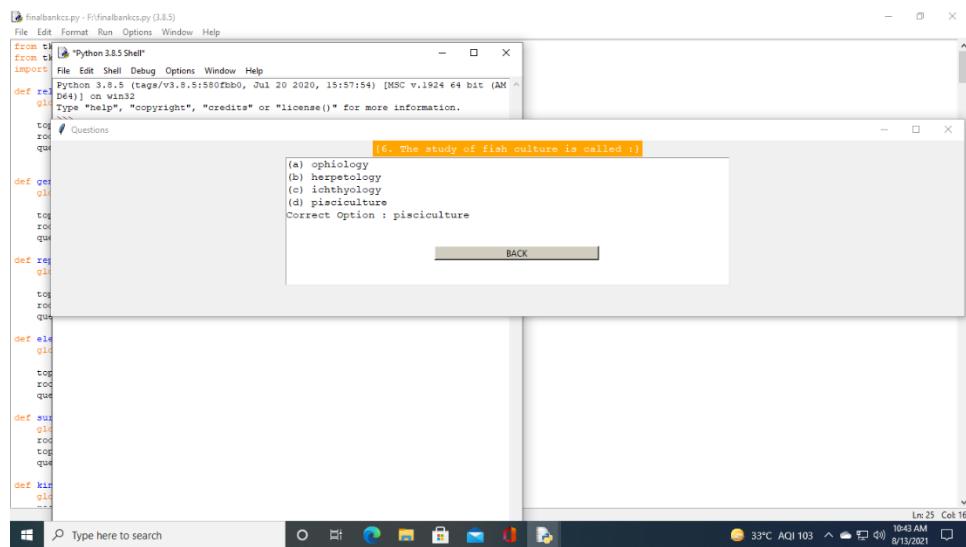
def kin():
    top
    rod
    que

from tkinter import *
from tkinter import messagebox
import os
os.system("cls")
print("Questions")
print("1. Intense lactating mothers do not generally conceive due to the -")
print("(a) suppression of gonadotropins")
print("(b) hypersecretion of gonadotropins .")
print("(c) suppression of gametic transport")
print("(d) suppression of fertilisation.")
print("Correct Option : suppression of gonadotropins")
print(" ")
print("BACK")
```

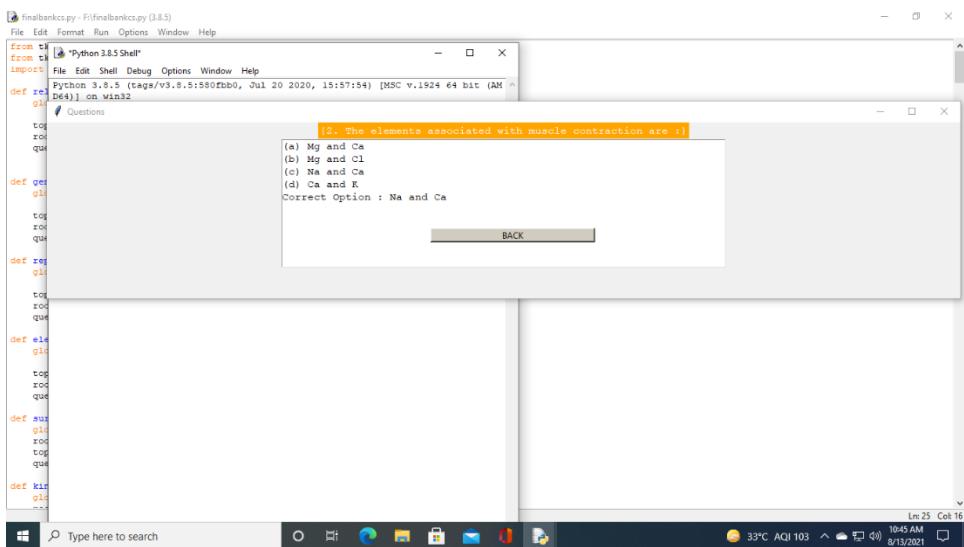
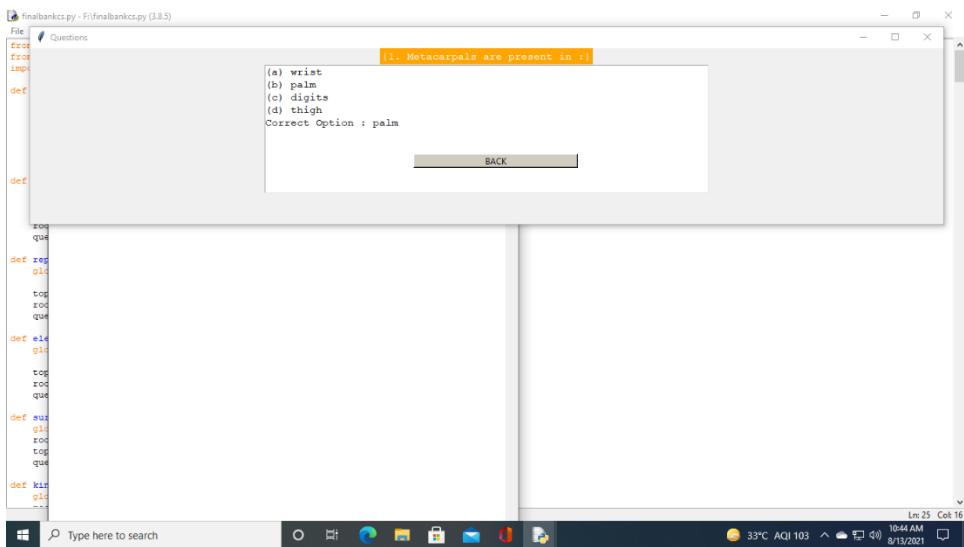
If we have chosen Topic-Living World then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.







If we have chosen Topic-Locomotion then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.



```
[f] finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import random

def reg():
    global qid
    top.destroy()
    root = Tk()
    root.title("Questions")
    root.geometry("400x400")
    que = "Q1. What happens in osteoporosis?"
    q1 = Label(root, text=que).grid(row=0, column=0)
    a1 = "a) Decrease in progesterone"
    b1 = "b) Increase in progesterone"
    c1 = "c) Decrease in estrogen"
    d1 = "d) Both 2 and 3"
    options = [a1, b1, c1, d1]
    random.shuffle(options)
    for option in options:
        Radiobutton(root, text=option).grid(row=1, column=0)
    button = Button(root, text="SUBMIT", command=lambda: check(q1, a1, b1, c1, d1)).grid(row=2, column=0)
    button = Button(root, text="BACK", command=root.destroy).grid(row=3, column=0)

def gen():
    global qid
    top.destroy()
    root = Tk()
    root.title("Questions")
    root.geometry("400x400")
    que = "Q1. What happens in osteoporosis?"
    q1 = Label(root, text=que).grid(row=0, column=0)
    a1 = "a) Decrease in progesterone"
    b1 = "b) Increase in progesterone"
    c1 = "c) Decrease in estrogen"
    d1 = "d) Both 2 and 3"
    options = [a1, b1, c1, d1]
    random.shuffle(options)
    for option in options:
        Radiobutton(root, text=option).grid(row=1, column=0)
    button = Button(root, text="SUBMIT", command=lambda: check(q1, a1, b1, c1, d1)).grid(row=2, column=0)
    button = Button(root, text="BACK", command=root.destroy).grid(row=3, column=0)

def rep():
    global qid
    top.destroy()
    root = Tk()
    root.title("Questions")
    root.geometry("400x400")
    que = "Q1. What happens in osteoporosis?"
    q1 = Label(root, text=que).grid(row=0, column=0)
    a1 = "a) Decrease in progesterone"
    b1 = "b) Increase in progesterone"
    c1 = "c) Decrease in estrogen"
    d1 = "d) Both 2 and 3"
    options = [a1, b1, c1, d1]
    random.shuffle(options)
    for option in options:
        Radiobutton(root, text=option).grid(row=1, column=0)
    button = Button(root, text="SUBMIT", command=lambda: check(q1, a1, b1, c1, d1)).grid(row=2, column=0)
    button = Button(root, text="BACK", command=root.destroy).grid(row=3, column=0)

def ele():
    global qid
    top.destroy()
    root = Tk()
    root.title("Questions")
    root.geometry("400x400")
    que = "Q1. What happens in osteoporosis?"
    q1 = Label(root, text=que).grid(row=0, column=0)
    a1 = "a) Decrease in progesterone"
    b1 = "b) Increase in progesterone"
    c1 = "c) Decrease in estrogen"
    d1 = "d) Both 2 and 3"
    options = [a1, b1, c1, d1]
    random.shuffle(options)
    for option in options:
        Radiobutton(root, text=option).grid(row=1, column=0)
    button = Button(root, text="SUBMIT", command=lambda: check(q1, a1, b1, c1, d1)).grid(row=2, column=0)
    button = Button(root, text="BACK", command=root.destroy).grid(row=3, column=0)

def sus():
    global qid
    top.destroy()
    root = Tk()
    root.title("Questions")
    root.geometry("400x400")
    que = "Q1. What happens in osteoporosis?"
    q1 = Label(root, text=que).grid(row=0, column=0)
    a1 = "a) Decrease in progesterone"
    b1 = "b) Increase in progesterone"
    c1 = "c) Decrease in estrogen"
    d1 = "d) Both 2 and 3"
    options = [a1, b1, c1, d1]
    random.shuffle(options)
    for option in options:
        Radiobutton(root, text=option).grid(row=1, column=0)
    button = Button(root, text="SUBMIT", command=lambda: check(q1, a1, b1, c1, d1)).grid(row=2, column=0)
    button = Button(root, text="BACK", command=root.destroy).grid(row=3, column=0)

def kin():
    global qid
    top.destroy()
    root = Tk()
    root.title("Questions")
    root.geometry("400x400")
    que = "Q1. What happens in osteoporosis?"
    q1 = Label(root, text=que).grid(row=0, column=0)
    a1 = "a) Decrease in progesterone"
    b1 = "b) Increase in progesterone"
    c1 = "c) Decrease in estrogen"
    d1 = "d) Both 2 and 3"
    options = [a1, b1, c1, d1]
    random.shuffle(options)
    for option in options:
        Radiobutton(root, text=option).grid(row=1, column=0)
    button = Button(root, text="SUBMIT", command=lambda: check(q1, a1, b1, c1, d1)).grid(row=2, column=0)
    button = Button(root, text="BACK", command=root.destroy).grid(row=3, column=0)

def check(q1, a1, b1, c1, d1):
    if c1 == "c) Decrease in estrogen":
        messagebox.showinfo("Correct", "Correct Option : Decrease in estrogen")
    else:
        messagebox.showerror("Incorrect", "Incorrect Option")

    button = Button(root, text="BACK", command=root.destroy).grid(row=3, column=0)
```

A screenshot of a Windows desktop environment. The taskbar at the bottom shows several pinned icons: File Explorer, Microsoft Edge, File History, Control Panel, Task View, Start, and File Explorer again. The system tray displays the date (8/13/2021), time (10:45 AM), battery level (90%), signal strength, and a small icon. The desktop background is white. In the center, there is a large, semi-transparent dialog box from a software application. The title bar of the application window says "finalbankcs.py F:\finalbankcs.py (3.8.5)". The dialog box contains a question in orange text: "Ques 6. Which cavity is formed by the fusion of coxal bones?". Below it is a list of four options: (a) Glenoid cavity, (b) Acetabulum, (c) Acromion, (d) Scapula. A message at the bottom of the list says "Correct Option : Acetabulum". At the bottom of the dialog box is a grey button labeled "BACK". On the left side of the screen, the code editor shows the Python script "finalbankcs.py" with various functions like req, que, def reg, etc., partially visible.

```
finalbankcc.py - F:\finalbankcc.py (3.8.5)
File Edit Format Run Options Window Help
from Tk import * "Python 3.8.5 Shell"
import file Edit Shell Debug Options Window Help

def res(gid):
    top
    rod
    que
    qu

def gen(gid):
    top
    rod
    que
    qu

def req(gid):
    top
    rod
    que
    que

def ele(gid):
    top
    rod
    que

def sui(gid):
    top
    rod
    top
    que

def kin(gid):
    top
    rod
    que
    que

def res(gid):
    top
    rod
    que
    qu

def gen(gid):
    top
    rod
    que
    qu

def req(gid):
    top
    rod
    que
    que

def ele(gid):
    top
    rod
    que

def sui(gid):
    top
    rod
    top
    que

def kin(gid):
    top
    rod
    que
    que

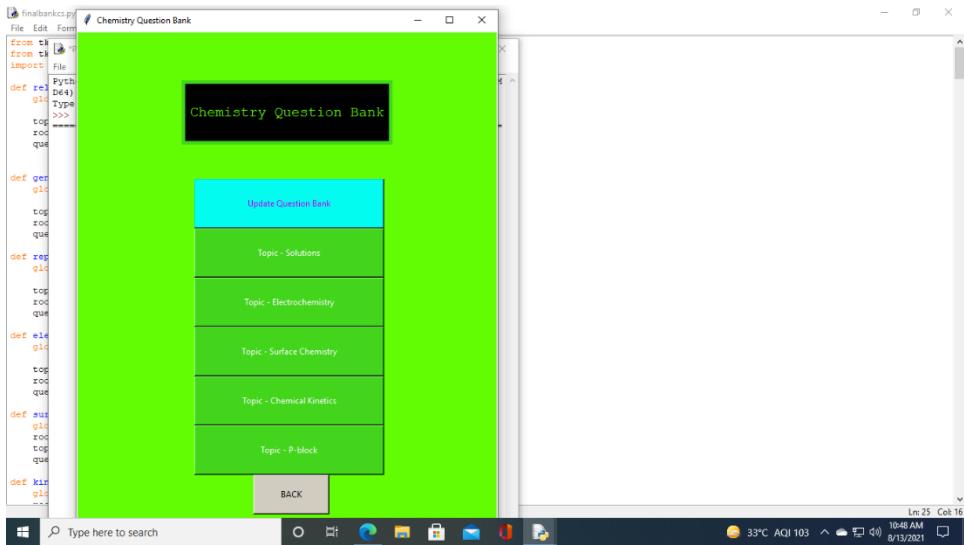
def Questions():
    print("17. Which is a part of pectoral girdle?")
    print("(a) Acetabulum")
    print("(b) Ilium")
    print("(c) Sternum")
    print("(d) Glenoid cavity")
    print("Correct Option : Glenoid cavity")

    button = Button(text="BACK", command=Questions)
    button.pack()

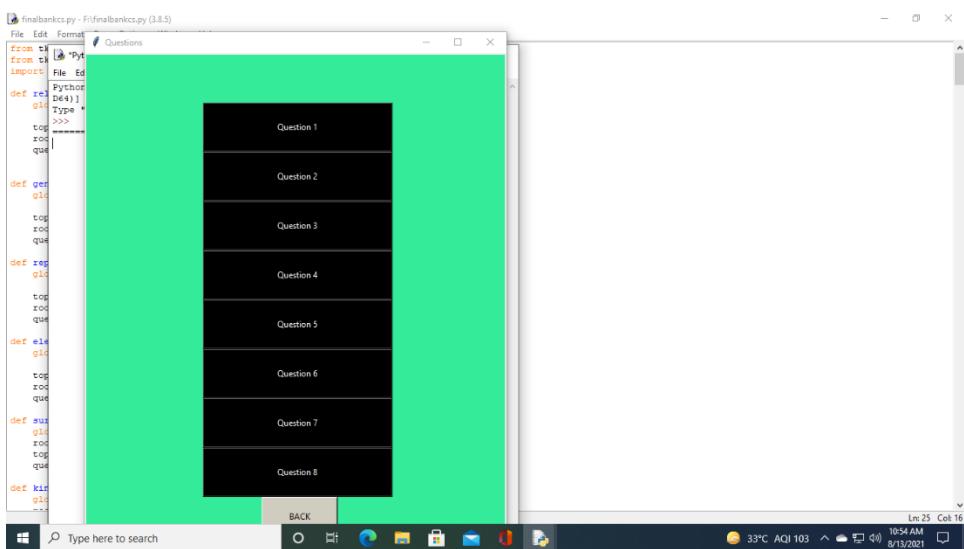
Questions()
```

```
finalbanksccs.py - F:\finalbanksccs.py (3.8.5)
File Edit View Insert Cell Kernel Help Questions
from random import randint
def reg():
    que = randint(1, 5)
    if que == 1:
        print("Q1. The process of forming a new bone from pre-existing tissue is called :")
        print("(a) Ossification (b) Calcification (c) Chondrification (d) Mineralization")
        print("Correct Option : A")
    elif que == 2:
        print("Q2. Which of the following is not a type of bone :")
        print("(a) Long bone (b) Short bone (c) Flat bone (d) Irregular bone")
        print("Correct Option : D")
    elif que == 3:
        print("Q3. The epiphyseal plate is also known as :")
        print("(a) Epiphyseal line (b) Epiphyseal cartilage (c) Epiphyseal cavity (d) Epiphyseal fluid")
        print("Correct Option : B")
    elif que == 4:
        print("Q4. The epiphyses are separated from the diaphysis by :")
        print("(a) Epiphyseal cartilage (b) Epiphyseal fluid (c) Epiphyseal line (d) Epiphyseal cavity")
        print("Correct Option : A")
    elif que == 5:
        print("Q5. The epiphyses are separated from the diaphysis by :")
        print("(a) Epiphyseal cartilage (b) Epiphyseal fluid (c) Epiphyseal line (d) Epiphyseal cavity")
        print("Correct Option : A")
    else:
        print("Error")
    print("\n\n")
    print("Do you want to play again? (y/n): ", end=" ")
    ans = input()
    if ans == "y" or ans == "Y":
        reg()
    else:
        print("Thank you for playing!")
def ele():
    que = randint(1, 5)
    if que == 1:
        print("Q1. A skeletal muscle which decreases the angle between two bones and bends a joint is :")
        print("(a) Flexor (b) Abductor (c) Extensor (d) Adductor")
        print("Correct Option : Flexor")
    elif que == 2:
        print("Q2. The main function of tendons is to :")
        print("(a) Attach muscle to bone (b) Attach bone to bone (c) Attach muscle to skin (d) Attach skin to bone")
        print("Correct Option : A")
    elif que == 3:
        print("Q3. The main function of tendons is to :")
        print("(a) Attach muscle to bone (b) Attach bone to bone (c) Attach muscle to skin (d) Attach skin to bone")
        print("Correct Option : A")
    elif que == 4:
        print("Q4. The main function of tendons is to :")
        print("(a) Attach muscle to bone (b) Attach bone to bone (c) Attach muscle to skin (d) Attach skin to bone")
        print("Correct Option : A")
    elif que == 5:
        print("Q5. The main function of tendons is to :")
        print("(a) Attach muscle to bone (b) Attach bone to bone (c) Attach muscle to skin (d) Attach skin to bone")
        print("Correct Option : A")
    else:
        print("Error")
    print("\n\n")
    print("Do you want to play again? (y/n): ", end=" ")
    ans = input()
    if ans == "y" or ans == "Y":
        ele()
    else:
        print("Thank you for playing!")
def sus():
    que = randint(1, 5)
    if que == 1:
        print("Q1. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 2:
        print("Q2. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 3:
        print("Q3. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 4:
        print("Q4. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 5:
        print("Q5. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    else:
        print("Error")
    print("\n\n")
    print("Do you want to play again? (y/n): ", end=" ")
    ans = input()
    if ans == "y" or ans == "Y":
        sus()
    else:
        print("Thank you for playing!")
def kin():
    que = randint(1, 5)
    if que == 1:
        print("Q1. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 2:
        print("Q2. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 3:
        print("Q3. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 4:
        print("Q4. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    elif que == 5:
        print("Q5. The joint that permits movement in all directions is :")
        print("(a) Ball and socket joint (b) Hinge joint (c) Pivot joint (d) Gliding joint")
        print("Correct Option : A")
    else:
        print("Error")
    print("\n\n")
    print("Do you want to play again? (y/n): ", end=" ")
    ans = input()
    if ans == "y" or ans == "Y":
        kin()
    else:
        print("Thank you for playing!")
print("Do you want to play again? (y/n): ", end=" ")
ans = input()
if ans == "y" or ans == "Y":
    finalbanksccs()
else:
    print("Thank you for playing!")
```

Upon clicking the chemistry button, the following window appears.



On clicking the buttons Topic-Solutions, Topic-  
electrochemistry, Topic-Surface chemistry, Topic-Chemical  
Kinetics, Topic-P-Block shown in above image this window  
appears.



If we have chosen the button Topic-Solutions then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.

```

finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Questions
from c import *
from c import *
import
[1. Mole fraction of glycerine C3H5(OH)3 in solution containing 36 g of water and 16 g of glycerine is :]
(a) 0.46
(b) 0.40
(c) 0.20
(d) 0.36
Correct Option : 0.20
BACK

def rep(g1,t1,r1):
    que
def ele(g1,t1,r1):
    que
def sus(g1,r1,t1):
    que
def kin(g1,r1,t1):
    que

```

```

finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
File Edit Shell Debug Options Window Help
Python 3.8.5 (tags/v3.8.5:550fbb0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AM
def r1(d64)) on win32
Questions
[2. Out of moleality (m), molality (M), formality (F) and mole fraction (x), those which are independent of temperature are :]
(a) M, m
(b) F, x
(c) m, x
(d) M, x
Correct Option : m, x
BACK

def rep(g1,t1,r1):
    que
def ele(g1,t1,r1):
    que
def sus(g1,r1,t1):
    que
def kin(g1,r1,t1):
    que

```

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    t1()
    r1()
    que()
def t1():
    r1()
    que()
def r1():
    que()
def que():
    print("13. Which of the following condition is not satisfied by an ideal solution?")
    print("(a) ?Vmixing = 0")
    print("(b) ?Vmixing = 0")
    print("(c) Raoult's Law is obeyed")
    print("(d) Formation of an azeotropic mixture")
    print("Correct Option : Raoult's law is obeyed")
    print(" ")
    print("BACK")
```

Ln: 25 Col: 16

33°C AQI 103 10:57 AM 8/13/2021

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    t1()
    r1()
    que()
def t1():
    r1()
    que()
def r1():
    que()
def que():
    print("14. The boiling point of an azeotropic mixture of water and ethanol is less than that of water and ethanol. The mixture shows")
    print("(a) no deviation from Raoult's Law")
    print("(b) positive deviation from Raoult's Law")
    print("(c) negative deviation from Raoult's Law")
    print("(d) that the solution is unsaturated")
    print("Correct Option : Positive deviation from Raoult's law")
    print(" ")
    print("BACK")
```

Ln: 25 Col: 16

33°C AQI 103 10:58 AM 8/13/2021

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    t1()
    r1()
    que()
def t1():
    r1()
    que()
def r1():
    que()
def que():
    print("15. Which has the lowest boiling point at 1 atm pressure?")
    print("(a) 0.1 M KCl")
    print("(b) 0.1 M Urea")
    print("(c) 0.1 M CaCl2")
    print("(d) 0.1 M AlCl3")
    print("Correct Option : 0.1M Urea")
    print(" ")
    print("BACK")
```

Ln: 25 Col: 16

33°C AQI 103 10:58 AM 8/13/2021

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
from tkinter import *  
from tkinter import messagebox  
import random
```

def req(q1):  
 que = "Ques  
1  
(6. Osmotic pressure of a solution is 0.0921 atm at a temperature of 300 K. The concentration in moles/litre will be :)  
(a) 0.33  
(b) 0.666  
(c) 0.3 × 10-2  
(d) 3  
Correct Option : 0.3×10-2

def reg(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def ele(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def sui(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def k1(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que

BACK

Ln: 25 Col: 16

33°C Haze 10:58 AM 8/13/2021

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
from tkinter import *  
from tkinter import messagebox  
import random
```

def req(q1):  
 que = "Ques  
1  
(7. People add sodium chloride to water while boiling eggs. This is to :)  
(a) decrease the boiling point.  
(b) increase the boiling point.  
(c) prevent the breaking of eggs.  
(d) make eggs tasty.  
Correct Option : Increase the boiling point

def reg(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def ele(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def sui(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def k1(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que

BACK

Ln: 25 Col: 16

33°C Haze 10:58 AM 8/13/2021

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
from tkinter import *  
from tkinter import messagebox  
import random
```

Python 3.8.5 (tags/v3.8.5:5800fbb0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AM  
D64)] on win32

def req(q1):  
 que = "Ques  
1  
(8. The van't Hoff factor (i) accounts for i)  
(a) degree of solubilisation of solute.  
(b) the extent of dissociation of solute.  
(c) the extent of dissolution of solute.  
(d) the degree of decomposition of solution.  
Correct Option : the extent of disassociation of solute

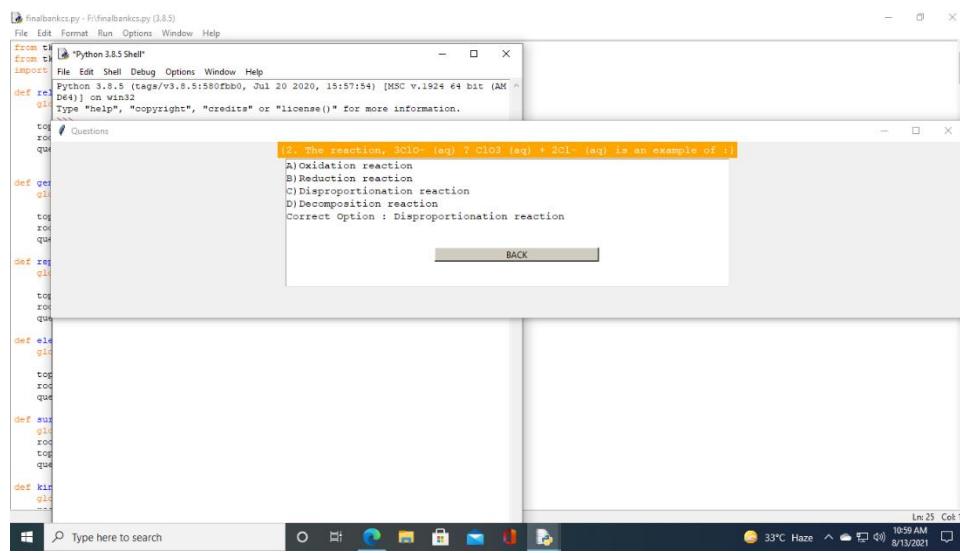
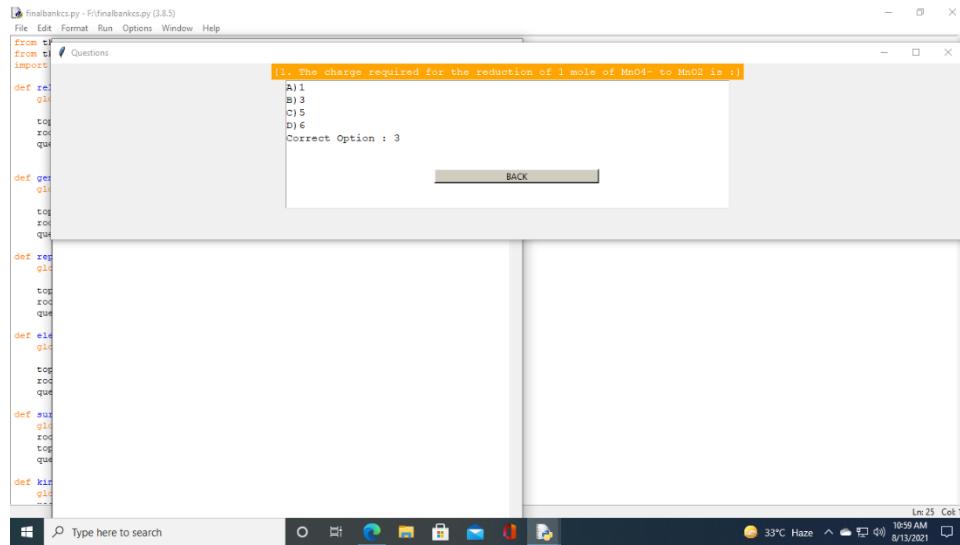
def reg(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def ele(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def sui(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que  
def k1(q1):  
 que = "Ques  
1  
t<sub>1</sub>  
r<sub>1</sub>  
que

BACK

Ln: 25 Col: 16

33°C Haze 10:59 AM 8/13/2021

If we have chosen the button Topic-Electrochemistry then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.



```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from tk import *
from ck import "Python 3.8.5 Shell"
import Questions
def reg():
    q1
    t1q
    r1o
    que
def ele():
    q1
    t1q
    r1o
    que
def sus():
    q1
    r1o
    t1q
    que
def k1():
    q1
    que
    BACK
```

[3. NH<sub>4</sub>NC<sub>8</sub>O<sub>3</sub> is used in salt bridge because : ]

- A) it forms a jelly like material with agar-agar
- B) it is a weak electrolyte
- C) it is a good conductor of electricity
- D) the transport number of NH<sub>4</sub><sup>+</sup> and NO<sub>3</sub><sup>-</sup> ions are almost equal

Correct Option : the transport number of NH<sub>4</sub><sup>+</sup> and NO<sub>3</sub><sup>-</sup> ions are almost

Ln: 25 Col: 16  
33°C Haze 10:59 AM 8/13/2021

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Questions
from tk import *
from ck import "Python 3.8.5 Shell"
import Questions
def reg():
    q1
    t1q
    r1o
    que
def ele():
    q1
    t1q
    r1o
    que
def sus():
    q1
    r1o
    t1q
    que
def k1():
    q1
    que
    BACK
```

[4. Without losing its concentration ZnCl<sub>2</sub> solution cannot be kept in contact with : ]

- A) Au
- B) Al
- C) Pb
- D) Ag

Correct Option : Al

Ln: 25 Col: 16  
33°C Haze 11:00 AM 8/13/2021

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from tk import *
from tk import "Python 3.8.5 Shell"
import file Edit Shell Debug Options Window Help
def req(q1):
    Questions
    (5. When heating one end of a metal plate, the other end gets hot because of : )
        A)the resistance of the metal
        B)mobility of atoms in the metal
        C)energised electrons moving to the other end
        D)minor perturbation in the energy of atoms
    Correct Option : energised electrons moving to the other end
    BACK
```

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Questions
from tk import
from tk import "Python 3.8.5 Shell"
import file Edit Shell Debug Options Window Help
def req(q1):
    (6. the emf of the cell: Ni / Ni2+ (1.0 M) // Au3+ (1.0 M) / Au (E° = -0.25 V for Ni2+/Ni; E° = 1.5 V for Au3+/Au) is : )
        (a) 1.25 V
        (b) -1.25 V
        (c) 1.75 V
        (d) 2.0 V
    Correct Option : 1.75V
    BACK
```

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from tk import *
from tk import "Python 3.8.5 (tags/v3.8.5:5800fb0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AM
def req(q1):
    Questions
    The standard emf of a galvanic cell involving cell reaction with n = 2 is formed to be 0.395 V at 25° C. The equilibrium constant of the reaction was
        (a) 1.0 × 1010
        (b) 2.0 × 1011
        (c) 4.0 × 1012
        (d) 1.0 × 102
    Correct Option : 1.0 × 1010
    BACK
```

A screenshot of a Windows desktop environment. In the foreground, a Python script titled 'finalbankcs.py' is open in a code editor. The script contains several functions: 'def re', 'def q1', 'def q2', 'def q3', 'def q4', 'def q5', 'def q6', 'def q7', 'def q8', 'def ele', 'def sus', and 'def kin'. A question dialog box is overlaid on the script window, displaying a question about standard EMF and its correct answer (1.212V). The taskbar at the bottom shows various pinned icons and the date/time as 8/13/2021, 11:00 AM.

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from Tk import *
from tk import *
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    print("Q1. If E*Fe2+/Fe = -0.441 V and E*Fe2+/Fe2+ = 0.771 V, the standard EMF of the reaction, Fe + 2Fe3+ ? 3Fe2+ will be :")
    print("(a) 1.212 V")
    print("(b) 0.111 V")
    print("(c) 0.330 V")
    print("(d) 1.653 V")
    que()
    print("Correct Option : 1.212V")
    button = Button(root, text="BACK", command=back)
    button.pack()
def q2():
    q1()
    t2()
    r2()
    que()
def q3():
    q2()
    t3()
    r3()
    que()
def q4():
    q3()
    t4()
    r4()
    que()
def q5():
    q4()
    t5()
    r5()
    que()
def q6():
    q5()
    t6()
    r6()
    que()
def q7():
    q6()
    t7()
    r7()
    que()
def q8():
    q7()
    t8()
    r8()
    que()
def ele():
    q8()
    t9()
    r9()
    que()
def sus():
    q9()
    t10()
    r10()
    que()
def kin():
    q10()
    t11()
    r11()
    que()
button = Button(root, text="BACK", command=back)
button.pack()
```

If we have chosen the button Surface Chemistry then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.

A screenshot of a Windows desktop environment. In the foreground, a Python shell window titled 'Python 3.8.5 Shell' is open, showing the Python version and build information. An additional question dialog box is overlaid on the shell window, displaying a question about the value of  $n$  in the Freundlich adsorption isotherm and its correct answer (equal to one). The taskbar at the bottom shows various pinned icons and the date/time as 8/13/2021, 11:01 AM.

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
Python 3.8.5 (tags/v3.8.5:580fbb0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AM
d64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

from Tk import *
from tk import *
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    print("Q1. In Freundlich adsorption isotherm  $a/m = k p^n$ , the value of  $n$  at low pressure is :")
    print("(a) more than one.")
    print("(b) less than one.")
    print("(c) equal to one")
    print("(d) from zero to one.")
    que()
    print("Correct Option : equal to one")
    button = Button(root, text="BACK", command=back)
    button.pack()
def q2():
    q1()
    t2()
    r2()
    que()
def q3():
    q2()
    t3()
    r3()
    que()
def q4():
    q3()
    t4()
    r4()
    que()
def q5():
    q4()
    t5()
    r5()
    que()
def q6():
    q5()
    t6()
    r6()
    que()
def q7():
    q6()
    t7()
    r7()
    que()
def q8():
    q7()
    t8()
    r8()
    que()
def ele():
    q8()
    t9()
    r9()
    que()
def sus():
    q9()
    t10()
    r10()
    que()
def kin():
    q10()
    t11()
    r11()
    que()
button = Button(root, text="BACK", command=back)
button.pack()
```

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from tk import *
from tk import "Python 3.8.5 Shell"
import Questions
def re():
    q1
    t1
    r1
    que
    def que():
        q1
        t1
        r1
        que
        def re():
            q1
            t1
            r1
            que
            def ele():
                q1
                t1
                r1
                que
            def sui():
                q1
                r1
                t1
                que
            def k1():
                q1
                r1
                t1
                que
                BACK
```

(2. According to adsorption theory of catalysis, the speed of the reaction increases because :)

- (a) the concentration of the reactant molecules at the active centres
- (b) in the process of adsorption, the activation energy of the molecule
- (c) adsorption produces heat which increases the speed of the reaction
- (d) adsorption lowers the activation energy of the reaction.

Correct Option : adsorption lowers the activation energy of the reaction

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Questions
from tk import *
from tk import "Python 3.8.5 Shell"
import Questions
def que():
    q1
    t1
    r1
    que
    def re():
        q1
        t1
        r1
        que
        def ele():
            q1
            t1
            r1
            que
        def sui():
            q1
            r1
            t1
            que
        def k1():
            q1
            r1
            t1
            que
            BACK
```

(3. Which shape selective catalyst is used to convert alcohol to gasoline?)

- (a) Trapsin
- (b) Calgon
- (c) ZSM-5
- (d) Zeigler-Natta catalyst

Correct Option : ZSM-5

```
finalbankcs.py - F:\finalbankcs.py (3.8.5)
File Edit Format Run Options Window Help
from tk import *
from tk import "Python 3.8.5 Shell"
import Questions
def re():
    q1
    on a small amount of FeCl3 is added to a freshly precipitated Fe(OH)3, a reddish brown colloidal solution is obtained. This pheno-menon is known
    t1
    r1
    que
    def que():
        q1
        on a small amount of FeCl3 is added to a freshly precipitated Fe(OH)3, a reddish brown colloidal solution is obtained. This pheno-menon is known
        t1
        r1
        que
        def re():
            q1
            on a small amount of FeCl3 is added to a freshly precipitated Fe(OH)3, a reddish brown colloidal solution is obtained. This pheno-menon is known
            t1
            r1
            que
            def ele():
                q1
                t1
                r1
                que
            def sui():
                q1
                r1
                t1
                que
            def k1():
                q1
                r1
                t1
                que
                BACK
```

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
File Questions
from finalbankcs import *
import random
def r1():
    que = "15. Lyophilic colloids are stable due to :"
    opt = "(a) charge on the particles.  
(b) large size of the particles.  
(c) small size of the particles.  
(d) layer of dispersion of medium on the particles."
    correct = "Correct Option : layer of dispersion of medium on the particles"
    print(que)
    print(opt)
    print(correct)
    print("BACK")
```

Type here to search

finalbankcs.py - F:\finalbankcs.py (3.8.5)

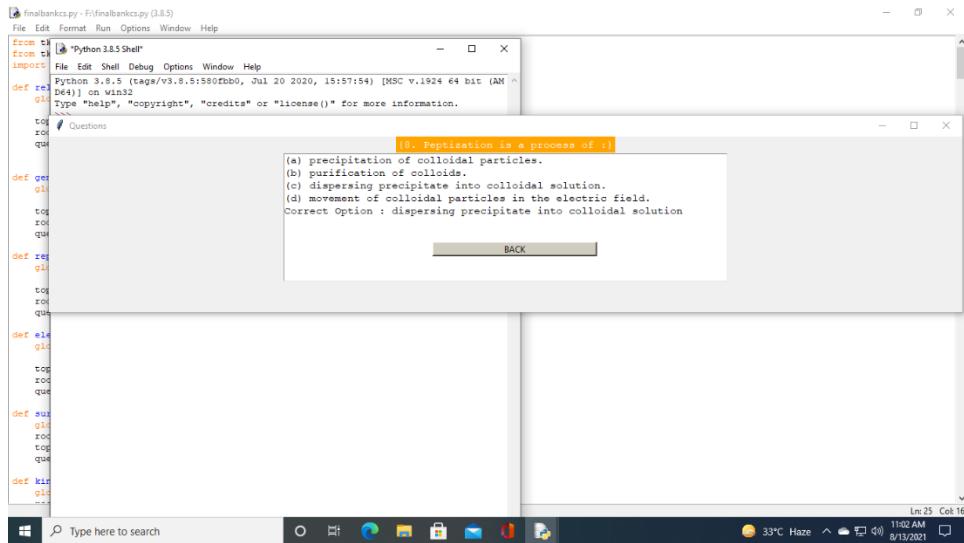
```
File Edit Format Run Options Window Help
from finalbankcs import *
from tkinter import *
Python 3.8.5 (tags/v3.8.5:580fbb0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AM
def r1():
    que = "6. Cottrell precipitator is used to :"
    opt = "(a) precipitate mud from muddy water.  
(b) precipitate carbon particles from smoke.  
(c) purify the ordinary drinking water.  
(d) precipitate salts in qualitative analysis."
    correct = "Correct Option : precipitate salts in qualitative analysis"
    print(que)
    print(opt)
    print(correct)
    print("BACK")
```

Type here to search

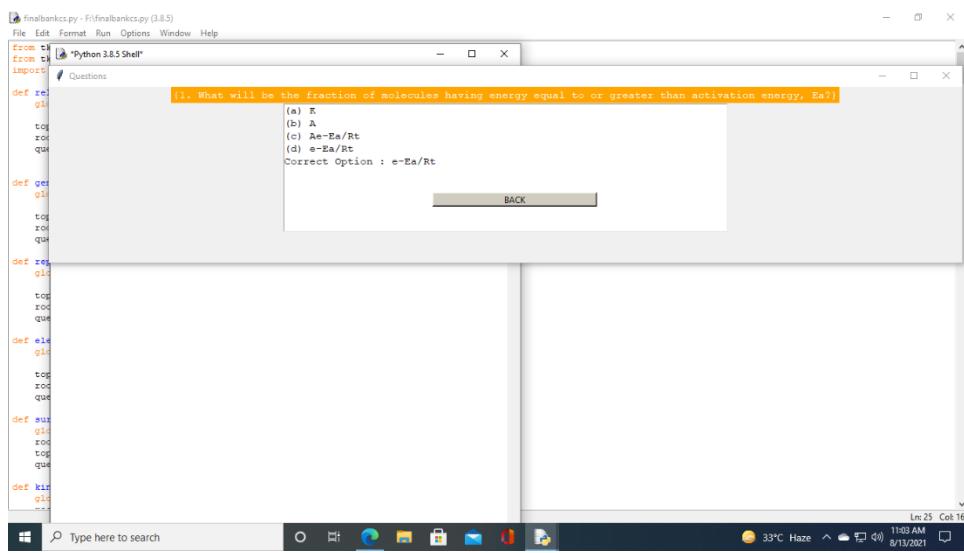
finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
File Edit Format Run Options Window Help
from finalbankcs import *
from tkinter import *
Questions
def r1():
    que = "7. The potential difference between the fixed charged layer and the diffused layer having opposite charge is called :"
    opt = "(a) Zeta potential  
(b) Electrokinetic potential  
(c) Both (a) and (b)  
(d) Streaming potential"
    correct = "Correct Option : Zeta potential"
    print(que)
    print(opt)
    print(correct)
    print("BACK")
```

Type here to search



If we have chosen the button Topic-Chemical Kinetics then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.



```
finalbankcs.py : F:\finalbankcs.py (3.8.5)
File Questions
from
from
import
def

def
req
que

def rep
    qid
    top
    rod
    que

def ele
    qid
    top
    rod
    que

def sub
    qid
    rod
    tog
    que

def kin
    qid
    ...

        (2. Which among the following is a false statement?)

        (a) Rate of zero order reaction is independent of initial concentration
        (b) Half life of a third order reaction is inversely proportional to  $k^2$ 
        (c) Molecularity of a reaction may be zero or fraction.
        (d) For a first order reaction,  $t_{1/2}=0.693k$ 

    Correct Option : Molecularity of a reaction maybe zero or fraction

    BACK

req
que

def rep
    qid
    top
    rod
    que

def ele
    qid
    top
    rod
    que

def sub
    qid
    rod
    tog
    que

def kin
    qid
    ...
Ln: 25 Col: 16
33°C Haze ⚡ 11:03 AM 8/13/2021
```

The screenshot shows a Windows desktop with two overlapping Python windows. The top window is titled "Python 3.8.5 Shell" and contains a question about catalysts:

[3. Which of the following statements about the catalyst is true?]

(a) A catalyst accelerates the rate of reaction by bringing down the activation energy.  
(b) A catalyst does not participate in reaction mechanism.  
(c) A catalyst makes the reaction feasible by making  $\Delta G^\circ$  more negative.  
(d) A catalyst makes equilibrium constant more favourable for forward reaction.

Correct Option : A catalyst accelerates the rate of reaction by bringing down the activation energy.

Below this window is a "BACK" button.

The bottom window is titled "finalanks.py - Python 3.8.5 (3.8.5)" and displays the following code:

```
from Tkinter import *  
from tkSimpleDialog import *  
import random  
  
def reac_gibbs(q1,q2,q3,q4,q5,q6,q7,q8,q9,q10,q11,q12,q13,q14,q15,q16,q17,q18,q19,q20,q21,q22,q23,q24,q25,q26,q27,q28,q29,q30,q31,q32,q33,q34,q35,q36,q37,q38,q39,q40,q41,q42,q43,q44,q45,q46,q47,q48,q49,q50,q51,q52,q53,q54,q55,q56,q57,q58,q59,q60,q61,q62,q63,q64,q65,q66,q67,q68,q69,q70,q71,q72,q73,q74,q75,q76,q77,q78,q79,q80,q81,q82,q83,q84,q85,q86,q87,q88,q89,q90,q91,q92,q93,q94,q95,q96,q97,q98,q99,q100,q101,q102,q103,q104,q105,q106,q107,q108,q109,q110,q111,q112,q113,q114,q115,q116,q117,q118,q119,q120,q121,q122,q123,q124,q125,q126,q127,q128,q129,q130,q131,q132,q133,q134,q135,q136,q137,q138,q139,q140,q141,q142,q143,q144,q145,q146,q147,q148,q149,q150,q151,q152,q153,q154,q155,q156,q157,q158,q159,q160,q161,q162,q163,q164,q165,q166,q167,q168,q169,q170,q171,q172,q173,q174,q175,q176,q177,q178,q179,q180,q181,q182,q183,q184,q185,q186,q187,q188,q189,q190,q191,q192,q193,q194,q195,q196,q197,q198,q199,q200,q201,q202,q203,q204,q205,q206,q207,q208,q209,q210,q211,q212,q213,q214,q215,q216,q217,q218,q219,q220,q221,q222,q223,q224,q225,q226,q227,q228,q229,q230,q231,q232,q233,q234,q235,q236,q237,q238,q239,q240,q241,q242,q243,q244,q245,q246,q247,q248,q249,q250,q251,q252,q253,q254,q255,q256,q257,q258,q259,q260,q261,q262,q263,q264,q265,q266,q267,q268,q269,q270,q271,q272,q273,q274,q275,q276,q277,q278,q279,q280,q281,q282,q283,q284,q285,q286,q287,q288,q289,q290,q291,q292,q293,q294,q295,q296,q297,q298,q299,q300,q301,q302,q303,q304,q305,q306,q307,q308,q309,q310,q311,q312,q313,q314,q315,q316,q317,q318,q319,q320,q321,q322,q323,q324,q325,q326,q327,q328,q329,q330,q331,q332,q333,q334,q335,q336,q337,q338,q339,q340,q341,q342,q343,q344,q345,q346,q347,q348,q349,q350,q351,q352,q353,q354,q355,q356,q357,q358,q359,q360,q361,q362,q363,q364,q365,q366,q367,q368,q369,q370,q371,q372,q373,q374,q375,q376,q377,q378,q379,q380,q381,q382,q383,q384,q385,q386,q387,q388,q389,q390,q391,q392,q393,q394,q395,q396,q397,q398,q399,q400,q401,q402,q403,q404,q405,q406,q407,q408,q409,q410,q411,q412,q413,q414,q415,q416,q417,q418,q419,q420,q421,q422,q423,q424,q425,q426,q427,q428,q429,q430,q431,q432,q433,q434,q435,q436,q437,q438,q439,q440,q441,q442,q443,q444,q445,q446,q447,q448,q449,q450,q451,q452,q453,q454,q455,q456,q457,q458,q459,q460,q461,q462,q463,q464,q465,q466,q467,q468,q469,q470,q471,q472,q473,q474,q475,q476,q477,q478,q479,q480,q481,q482,q483,q484,q485,q486,q487,q488,q489,q490,q491,q492,q493,q494,q495,q496,q497,q498,q499,q500,q501,q502,q503,q504,q505,q506,q507,q508,q509,q510,q511,q512,q513,q514,q515,q516,q517,q518,q519,q520,q521,q522,q523,q524,q525,q526,q527,q528,q529,q530,q531,q532,q533,q534,q535,q536,q537,q538,q539,q540,q541,q542,q543,q544,q545,q546,q547,q548,q549,q550,q551,q552,q553,q554,q555,q556,q557,q558,q559,q560,q561,q562,q563,q564,q565,q566,q567,q568,q569,q570,q571,q572,q573,q574,q575,q576,q577,q578,q579,q580,q581,q582,q583,q584,q585,q586,q587,q588,q589,q590,q591,q592,q593,q594,q595,q596,q597,q598,q599,q600,q601,q602,q603,q604,q605,q606,q607,q608,q609,q610,q611,q612,q613,q614,q615,q616,q617,q618,q619,q620,q621,q622,q623,q624,q625,q626,q627,q628,q629,q630,q631,q632,q633,q634,q635,q636,q637,q638,q639,q640,q641,q642,q643,q644,q645,q646,q647,q648,q649,q650,q651,q652,q653,q654,q655,q656,q657,q658,q659,q660,q661,q662,q663,q664,q665,q666,q667,q668,q669,q670,q671,q672,q673,q674,q675,q676,q677,q678,q679,q680,q681,q682,q683,q684,q685,q686,q687,q688,q689,q690,q691,q692,q693,q694,q695,q696,q697,q698,q699,q700,q701,q702,q703,q704,q705,q706,q707,q708,q709,q710,q711,q712,q713,q714,q715,q716,q717,q718,q719,q720,q721,q722,q723,q724,q725,q726,q727,q728,q729,q730,q731,q732,q733,q734,q735,q736,q737,q738,q739,q740,q741,q742,q743,q744,q745,q746,q747,q748,q749,q750,q751,q752,q753,q754,q755,q756,q757,q758,q759,q760,q761,q762,q763,q764,q765,q766,q767,q768,q769,q770,q771,q772,q773,q774,q775,q776,q777,q778,q779,q780,q781,q782,q783,q784,q785,q786,q787,q788,q789,q790,q791,q792,q793,q794,q795,q796,q797,q798,q799,q800,q801,q802,q803,q804,q805,q806,q807,q808,q809,q810,q811,q812,q813,q814,q815,q816,q817,q818,q819,q820,q821,q822,q823,q824,q825,q826,q827,q828,q829,q830,q831,q832,q833,q834,q835,q836,q837,q838,q839,q840,q841,q842,q843,q844,q845,q846,q847,q848,q849,q850,q851,q852,q853,q854,q855,q856,q857,q858,q859,q860,q861,q862,q863,q864,q865,q866,q867,q868,q869,q870,q871,q872,q873,q874,q875,q876,q877,q878,q879,q880,q881,q882,q883,q884,q885,q886,q887,q888,q889,q890,q891,q892,q893,q894,q895,q896,q897,q898,q899,q900,q901,q902,q903,q904,q905,q906,q907,q908,q909,q910,q911,q912,q913,q914,q915,q916,q917,q918,q919,q920,q921,q922,q923,q924,q925,q926,q927,q928,q929,q930,q931,q932,q933,q934,q935,q936,q937,q938,q939,q940,q941,q942,q943,q944,q945,q946,q947,q948,q949,q950,q951,q952,q953,q954,q955,q956,q957,q958,q959,q960,q961,q962,q963,q964,q965,q966,q967,q968,q969,q970,q971,q972,q973,q974,q975,q976,q977,q978,q979,q980,q981,q982,q983,q984,q985,q986,q987,q988,q989,q990,q991,q992,q993,q994,q995,q996,q997,q998,q999,q1000,q1001,q1002,q1003,q1004,q1005,q1006,q1007,q1008,q1009,q1010,q1011,q1012,q1013,q1014,q1015,q1016,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```

```
finalbankcc.py - Finalbankcc.py (3.8.5)
File Edit Format Run Options Window Help
from Tkinter import * # Python 3.6 Shell*
from Tkinter import * # Python 3.8 Shell*
import Tk
file Edit Shell Debug Options Window Help
Python 3.8.5 (tags/v3.8.5:580fbd0, Jul 20 2020, 15:57:54) [MSC v.1924 64 bit (AM
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

def res():
    global q
    q = 1
    top = Toplevel()
    top.title("Questions")
    top.geometry("600x400")
    top.resizable(0, 0)
    que = "A chemical reaction A+B, it is found that the rate of reaction doubles when the concentration of A is increased four times. The order of reactant A is"
    question_label = Label(top, text=que)
    question_label.pack(pady=10)
    options = [
        "(a) Two",
        "(b) One",
        "(c) Half",
        "(d) Zero"
    ]
    option_label = Label(top, text="Correct Option : Half")
    option_label.pack(pady=10)
    back_button = Button(top, text="BACK", command=top.destroy)
    back_button.pack(pady=10)

def gen():
    global q
    q += 1
    top = Toplevel()
    top.title("Questions")
    top.geometry("600x400")
    top.resizable(0, 0)
    que = "A chemical reaction A+B, it is found that the rate of reaction doubles when the concentration of A is increased four times. The order of reactant A is"
    question_label = Label(top, text=que)
    question_label.pack(pady=10)
    options = [
        "(a) Two",
        "(b) One",
        "(c) Half",
        "(d) Zero"
    ]
    option_label = Label(top, text="Correct Option : Half")
    option_label.pack(pady=10)
    back_button = Button(top, text="BACK", command=top.destroy)
    back_button.pack(pady=10)

def sol():
    global q
    q += 1
    top = Toplevel()
    top.title("Questions")
    top.geometry("600x400")
    top.resizable(0, 0)
    que = "A chemical reaction A+B, it is found that the rate of reaction doubles when the concentration of A is increased four times. The order of reactant A is"
    question_label = Label(top, text=que)
    question_label.pack(pady=10)
    options = [
        "(a) Two",
        "(b) One",
        "(c) Half",
        "(d) Zero"
    ]
    option_label = Label(top, text="Correct Option : Half")
    option_label.pack(pady=10)
    back_button = Button(top, text="BACK", command=top.destroy)
    back_button.pack(pady=10)

def ele():
    global q
    q += 1
    top = Toplevel()
    top.title("Questions")
    top.geometry("600x400")
    top.resizable(0, 0)
    que = "A chemical reaction A+B, it is found that the rate of reaction doubles when the concentration of A is increased four times. The order of reactant A is"
    question_label = Label(top, text=que)
    question_label.pack(pady=10)
    options = [
        "(a) Two",
        "(b) One",
        "(c) Half",
        "(d) Zero"
    ]
    option_label = Label(top, text="Correct Option : Half")
    option_label.pack(pady=10)
    back_button = Button(top, text="BACK", command=top.destroy)
    back_button.pack(pady=10)

def sus():
    global q
    q += 1
    top = Toplevel()
    top.title("Questions")
    top.geometry("600x400")
    top.resizable(0, 0)
    que = "A chemical reaction A+B, it is found that the rate of reaction doubles when the concentration of A is increased four times. The order of reactant A is"
    question_label = Label(top, text=que)
    question_label.pack(pady=10)
    options = [
        "(a) Two",
        "(b) One",
        "(c) Half",
        "(d) Zero"
    ]
    option_label = Label(top, text="Correct Option : Half")
    option_label.pack(pady=10)
    back_button = Button(top, text="BACK", command=top.destroy)
    back_button.pack(pady=10)

def kin():
    global q
    q += 1
    top = Toplevel()
    top.title("Questions")
    top.geometry("600x400")
    top.resizable(0, 0)
    que = "A chemical reaction A+B, it is found that the rate of reaction doubles when the concentration of A is increased four times. The order of reactant A is"
    question_label = Label(top, text=que)
    question_label.pack(pady=10)
    options = [
        "(a) Two",
        "(b) One",
        "(c) Half",
        "(d) Zero"
    ]
    option_label = Label(top, text="Correct Option : Half")
    option_label.pack(pady=10)
    back_button = Button(top, text="BACK", command=top.destroy)
    back_button.pack(pady=10)

# Taskbar
Type here to search 33°C Haze 8/13/2021 11:54 AM Ln 25 Col 16
```

If we have chosen the button Topic-P-block then upon clicking the buttons Question1, Question2, Question3, Question4, Question5, Question6, Question7, Question8 these windows will appear respectively.

The screenshot shows a Windows desktop environment with three windows open:

- A file explorer window titled "finalbanks.py" showing the file path "C:\Users\HP\PycharmProjects\finalbanks\finalbanks.py (3.8.5)".
- A PyCharm IDE window titled "finalbanks.py" containing Python code for a quiz application.
- A terminal window titled "Python 3.8.5 Shell" displaying a question about the boiling points of hydrides of group 16 elements and the correct answer.

The terminal window content is as follows:

```
[2. The boiling points of hydrides of group 16 are in the order :-]
(a) H2O > H2Te > H2S > H2Se
(b) H2O > H2S > H2Se > H2Te
(c) H2O > H2Te > H2Se > H2S
(d) None of these

Correct Option : H2O>H2S>H2Se>H2Te
```

At the bottom of the terminal window is a "BACK" button.

The taskbar at the bottom shows the following icons from left to right: Start button, search bar, File Explorer, Task View, Edge browser, File Manager, Mail, File Manager, and a folder icon. The system tray shows the date and time as "8/13/2021 11:05 AM".

finalbankcs.py - F:\finalbankcs.py (3.8.5)

```
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    t1()
    r1()
    que()
def t1():
    r1()
    que()
def r1():
    que()
def que():
    def q1():
        print("Q1. The set with correct order of acidity is :")
        print("(a) HClO < HClO2 < HClO3 < HClO4")
        print("(b) HClO4 < HClO3 < HClO2 < HClO")
        print("(c) HClO < HClO2 < HClO3 < HClO4")
        print("(d) HClO4 < HClO2 < HClO3 < HClO")
        correct = "HClO < HClO2 < HClO3 < HClO4"
        print("Correct Option : " + correct)
        b1 = Button(text="BACK", command=q1)
        b1.pack()
    q1()
def r1():
    que()
def que():
    que()
def k1():
    que()
```

33°C Haze 11:06 AM 8/13/2021

finalbankcs.py - F:\finalbankcs.py (3.8.5)

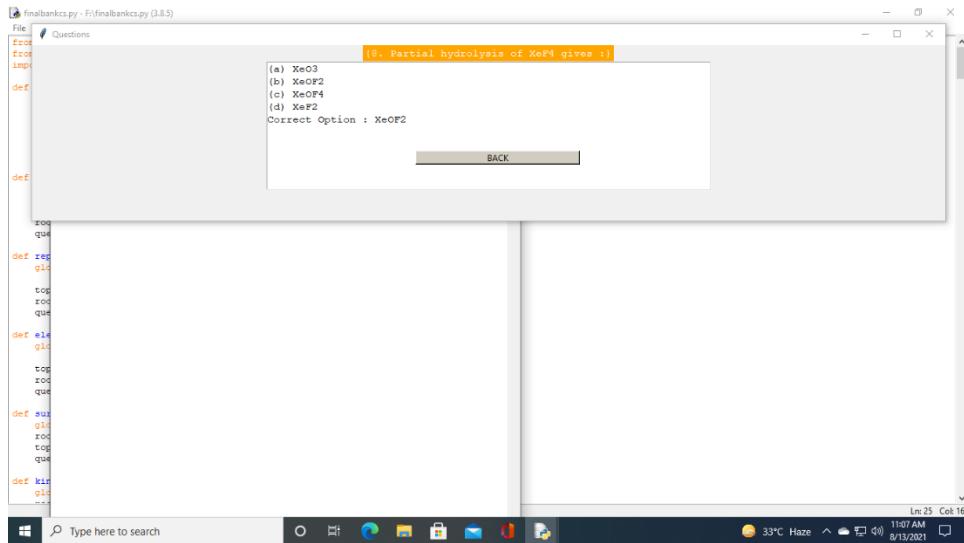
```
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    t1()
    r1()
    que()
def t1():
    r1()
    que()
def r1():
    que()
def que():
    def q1():
        print("Q1. When chlorine reacts with cold and dilute solution of sodium hydroxide, its form is :")
        print("(a) Cl- and ClO-")
        print("(b) Cl- and ClO2-")
        print("(c) Cl- and ClO3-")
        print("(d) Cl- and ClO4-")
        correct = "Cl- and ClO-"
        print("Correct Option : " + correct)
        b1 = Button(text="BACK", command=q1)
        b1.pack()
    q1()
def r1():
    que()
def que():
    que()
def k1():
    que()
```

33°C Haze 11:06 AM 8/13/2021

finalbankcs.py - F:\finalbankcs.py (3.8.5)

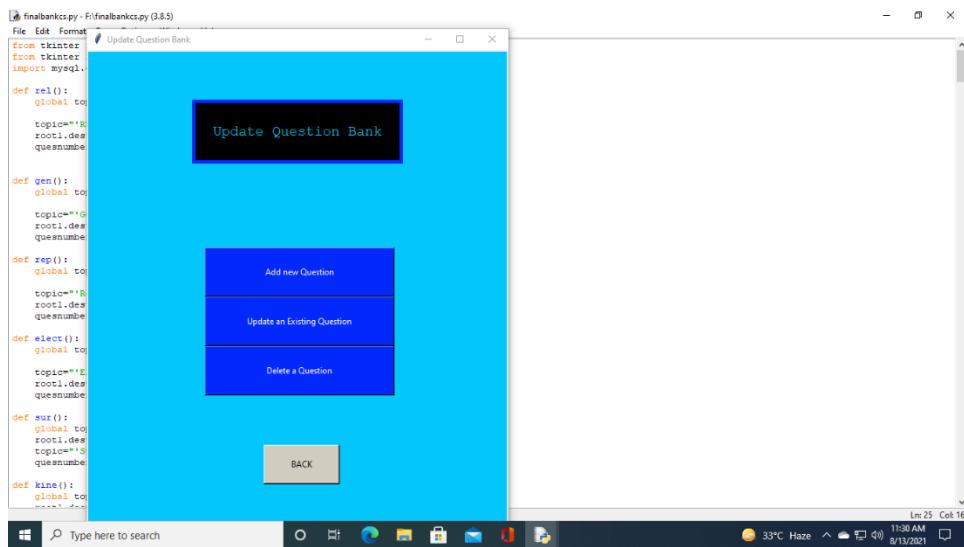
```
File Edit Format Run Options Window Help
from tkinter import *
from tkinter import messagebox
import random
def re():
    q1()
    t1()
    r1()
    que()
def q1():
    t1()
    r1()
    que()
def t1():
    r1()
    que()
def r1():
    que()
def que():
    def q1():
        print("Q1. The formation of O2+ [F2F6]- is the basis for the formation of first xenon compound. This is because :")
        print("(a) O2 and Xe have different sizes.")
        print("(b) both O2 and Xe are gases.")
        print("(c) O2 and Xe have comparable electro-negativities.")
        print("(d) O2 and Xe have comparable ionisation enthalpies.")
        correct = "O2 and Xe have comparable ionisation enthalpies."
        print("Correct Option : " + correct)
        b1 = Button(text="BACK", command=q1)
        b1.pack()
    q1()
def r1():
    que()
def que():
    que()
def k1():
    que()
```

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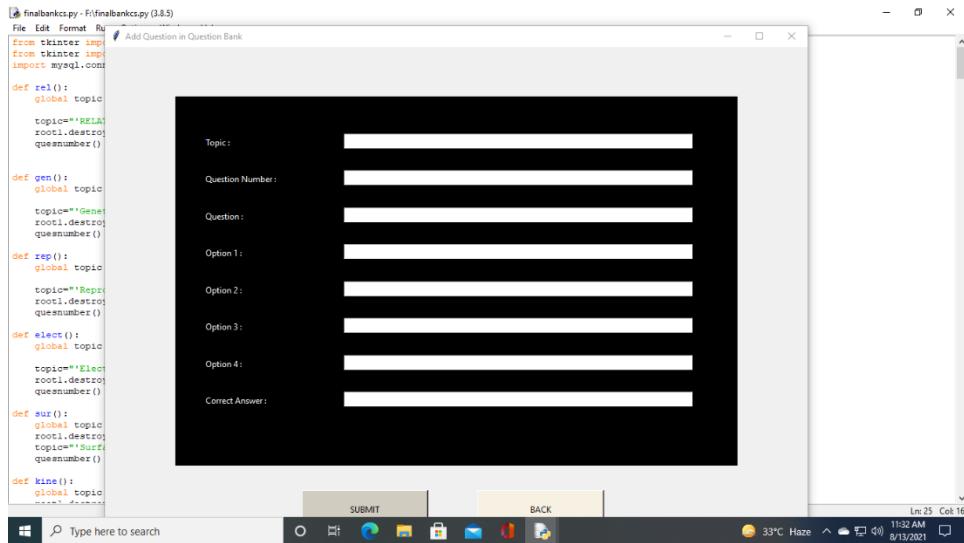


Similarly, similar type of tabs are made for math and physics as well which will show the questions based upon different topic.

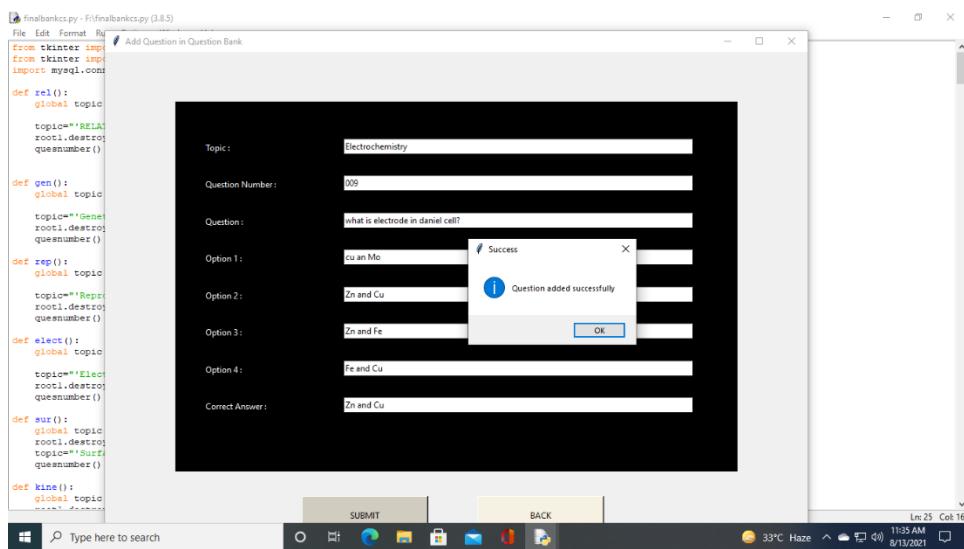
Upon clicking update question bank button the following window appears.



When we click the button add new question this window appears.



We type the question which we want to add and click submit button a dialogue box appears.



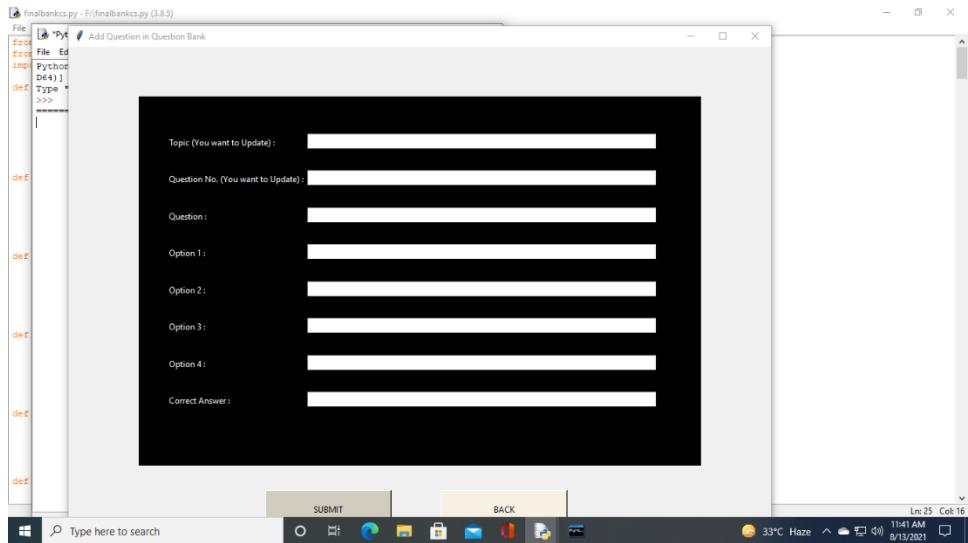
To check whether the question has been added to the database we give the following command in Mysql.

`mysql>select * from chem;`

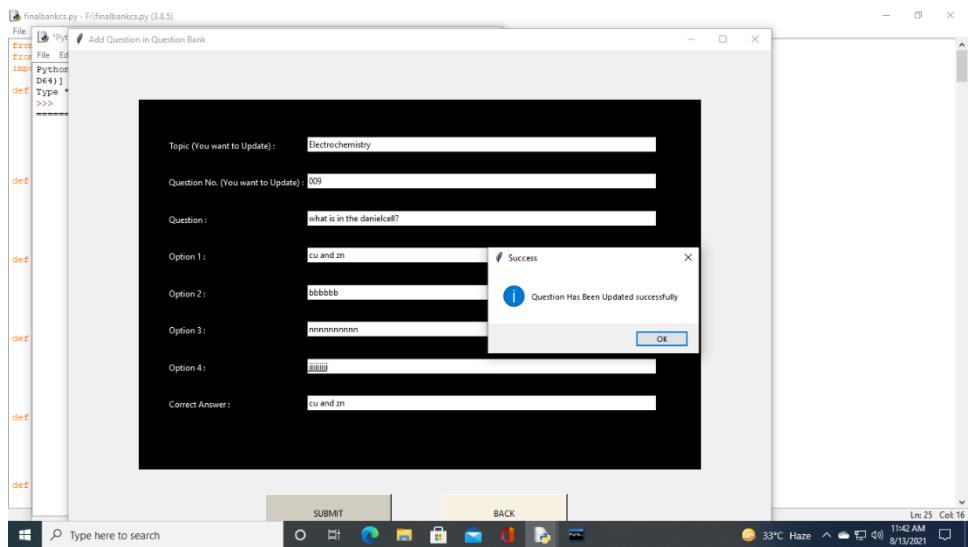
We can see at the end of the table the new question is added.

```
MySQL 8.0 Command Line Client - Unicode
:
| P-block | 008 | 8. Partial hydrolysis of XeF4 gives : | (a) XeO3 and Xe have different sizes. | (b) both O2 and Xe are gases. | (c) O2 and Xe have comparable electronegativities. | (d) O2 and Xe have comparable ionisation enthalpies. | Correct Option : O2 and Xe have comparable ionisation enthalpies.
| P-block | 006 | 6. When chlorine reacts with cold and dilute solution of sodium hydroxide, it forms : | (a) Cl- and ClO2- | (b) Cl- and ClO3- | (c) Cl- and ClO4- | (d) Cl- and Cu an Mo | Zn and Fe | Zn and Cu | Zn and Cu | Cu and Mo | Fe and Cu
:
41 rows in set (0.00 sec)
mysql>
```

Upon clicking the button Update an Existing Question the following window appears.



Upon clicking submit button the following dialogue box appears.



We again give the command in select \* from chem; command in mysql to see whether the question has been updated. The updated question is shown in the following image.

MySQL 8.0 Command Line Client - Unicode

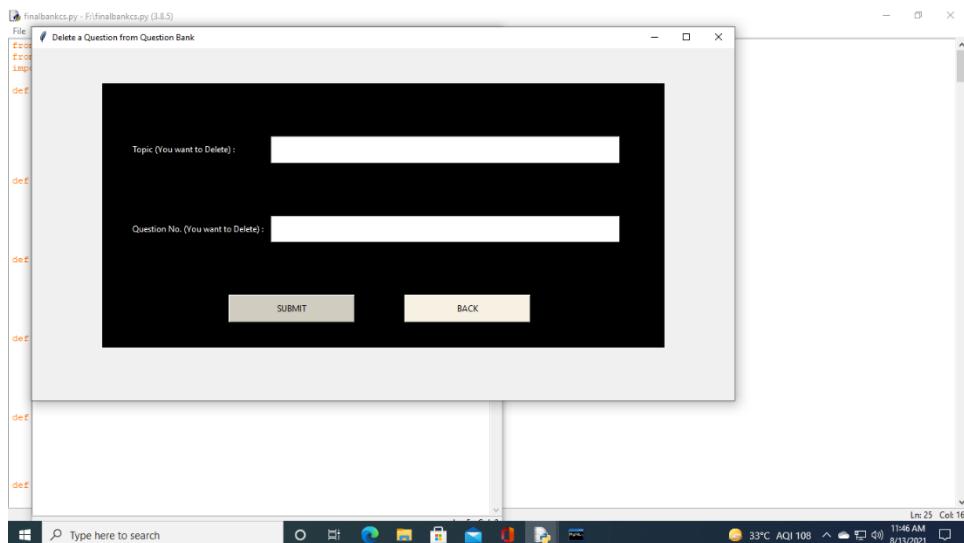
```

+-----+-----+-----+
| P-block | 005   | 5. The set with correct order of acidity is : |
|         |       | (a) its smaller size and high electronegativity. |
|         |       | (b) lack of d-orbitals. |
|         |       | (c) low bond dissociation energy. |
|         |       | (d) All of the these. |
|         |       | Correct Option : lack of d-orbitals
+-----+-----+-----+
| P-block | 006   | 6. When chlorine reacts with cold and dilute solution of sodium hydroxide, it forms : |
|         |       | (a) Cl- and ClO2- |
|         |       | (b) Cl- and ClO3- |
|         |       | (c) Cl- and ClO4- |
|         |       | (d) Cl- and ClO4- |
|         |       | Correct Option : Cl- and ClO3-
+-----+-----+-----+
| P-block | 007   | 7. The formation of O2+ [PtF6]- is the basis for the formation of first xenon compound. This is because O2 and Xe have comparable ionisation enthalpies. |
|         |       | (a) O2 and Xe have different sizes. |
|         |       | (b) both O2 and Xe are gases. |
|         |       | (c) O2 and Xe have comparable electro-negativities. |
|         |       | (d) O2 and Xe have comparable ionisation enthalpies.
+-----+-----+-----+
| P-block | 008   | 8. Partial hydrolysis of XeF4 gives : |
|         |       | (a) XeO3 |
|         |       | (b) XeOF2 |
|         |       | (c) XeOF4 |
|         |       | (d) XeF
+-----+-----+-----+
| Electrochemistry | 009   | what is in the danielcell? |
|         |       | (a) Cu and Zn |
|         |       | (b) Cu and Zn |
|         |       | (c) Cu and Zn |
|         |       | (d) Cu and Zn
+-----+-----+-----+
41 rows in set (0.00 sec)
mysql>

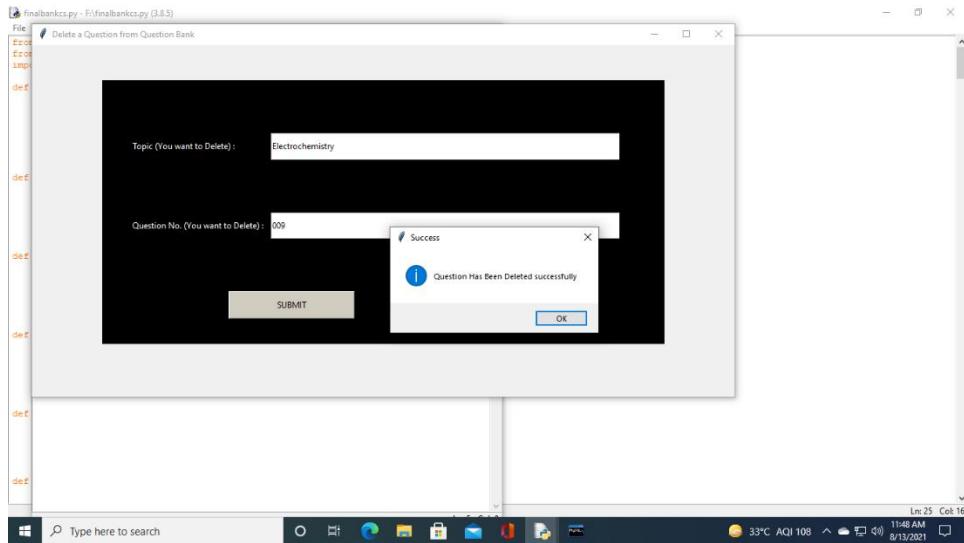
```

Type here to search    33°C Haze 11:44 AM 8/13/2021

Upon clicking the Delete a Question button we get the following window.



Upon clicking Submit button the following dialogue box appears.



We check whether the question has been deleted from the database or not.

```
MySQL 8.0 Command Line Client - Unicode
+-----+-----+-----+
| P-block | 004 | 4. Fluorine differs from rest of the halogens in some of its properties. This is due to : of the these.
+-----+-----+-----+
| P-block | 005 | 5. The set with correct order of acidity is :
+-----+-----+-----+
| P-block | 007 | 7. The formation of O2+ [PtF6]- is the basis for the formation of first xenon compound. This is because and Xe have comparable ionisation enthalpies.
+-----+-----+-----+
| P-block | 008 | 8. Partial hydrolysis of XeF4 gives :
+-----+-----+-----+
| P-block | 006 | 6. When chlorine reacts with cold and dilute solution of sodium hydroxide, it forms :
+-----+-----+-----+
40 rows in set (0.01 sec)
mysql>
```

The database shows the question has been deleted.

# SOME LIBRARIES AND FUNCTIONS USED:

- *TKINTER*

Tkinter is a standard library in python used for creating Graphical User Interface (GUI) for Desktop Applications. With the help of Tkinter developing desktop applications is not a tough task. Before learning Tkinter you should have basic knowledge of Python An important feature in favor of Tkinter is that it is cross-platform, so the same code can easily work on Windows, macOS, and Linux. Tkinter is a lightweight module. Tkinter is based upon the Tk toolkit, and which was originally designed for the Tool Command Language (Tcl).

- **FUNCTIONS**

A function is a block of organized, reusable code that is used to perform a single, related action. Functions provide better modularity for your application and a high degree of code reusing.

As you already know, Python gives you many built-in functions like `print()`, etc. but you can also create your own functions. These functions are called *user-defined functions*.

## **Defining a Function**

You can define functions to provide the required functionality. Here are simple rules to define a function in Python.

- Function blocks begin with the keyword `def` followed by the function name and parentheses `( )`.

- Any input parameters or arguments should be placed within these parentheses. You can also define parameters inside these parentheses.
- The code block within every function starts with a colon (:) and is indented.
- The statement return [expression] exits a function, optionally passing back an expression to the caller. A return statement with no arguments is the same as return None.

# Bibliography

*In order to work on this project titled –Question Bank, the following books and websites have been referred to by us during the various phases of development of the project.*

*(1) Computer Science - Sumita Arora*

*(2) <http://www.mysql.org/>*

*(3) Computer Science Textbook for class XII - NCERT*

*(4) Various Websites of Discussion Forum and software development activities.*

*Other than the above-mentioned books, the suggestions and supervision of our teacher and our class experience also has helped us to develop this project.*

**THANKYOU**