SET A

**Attempt any 2 questions.  All questions carry equal marks**

**All parts of questions must be attempted together**

Q1: What is the difference between **Interface** and **Abstract classes** explained with example? Create an abstract class for **Vehicle** and create the inherited classes for **Aeroplane** and **Car**. **Explain** the code.

*onCreate()*

Q2: What are the methods of an **Android Life Cycle**? Which method is best for instantiating the class variables? Write a code for below **User Interface** for COVID-19 data of Metro Cities.
**City** is a spinner with values: Delhi, Mumbai, Kolkata, Bangalore, Chennai.

On **submission** of the data using Submit button, app will **toast** a **success** or **failure** message based on following **checks in Activity class**:
 **(1)**Confirmed, Recovered and Deaths are numeric type and positive number
 **(2)**Date is string type and it should match with current date
 **(3)**City should be from one of the drop-down values

| COVID-19(TextView) | |
|---|---|
| City(TextView) | Spinner |
| Confirmed(TextView) | EditText |
| Recovered(TextView) | EditText |
| Deaths (TextView) | EditText |
| Date (TextView) | EditText |
| Submit (Button) | |

Create the **User Interface** similar to the below image.

Q3: Write a code for creation of a **Database** with name "**File_System**" and **Table** name "**Files**" using **SQLite Database** for Android Application, then write code for **inserting** data into database by passing **ContentValues** object.

**Table : "Files"**

| Column Name | Data Type | Attributes |
|---|---|---|
| _id | INTEGER | Primary Key, Auto Increment |
| name | TEXT | |
| size | INTEGER | |
| location | TEXT | |
| creation_date | TEXT | |

**Insert** the below records in **Files** Table

| name | size | location | creation_date |
|---|---|---|---|
| "Sample_File" | 1025 | "C:/Data/" | "2020-08-01 08:52:25:005" |
| "Log_File" | 10258 | "C:/Temp/" | "2020-18-01 |

| | | | 08:52:25:020" |
|---|---|---|---|