ASO(AG)(STC) (4/25)

2025

SKILL TEST IN COMPUTER (PRACTICAL)

Time : 1 hour

Full Marks : 50

The figures in the right-hand margin indicate marks.

*Answer **all** questions.*

GENERAL INSTRUCTIONS

[A] Candidates will save the answers on Desktop only by giving their Roll No. as the File Name. All the files should be kept in a folder with Roll No. as Folder Name.

[B] Candidates are required to collect the printout in separate papers (after the examination) for all the answers with help of the invigilator and hand over the same to the invigilator after giving his/her full signature and Roll No. at the bottom of each page.

1. Type the following text in 11-point Times New Roman font with 1.5 line spacing. Ensure the formatting matches the original by correctly incorporating bullet points, subscripts/superscripts, equations, and boldface text where applicable. Number all equations and figures sequentially : 10

This analysis examines regional differences in soil organic carbon (SOC) stocks and carbon sequestration rates ($C_{se\varphi}$), critical for climate change mitigation. The data reveals :

- Europe dominates SOC storage (median : 266.9 units), nearly 6 × higher than coastal systems (median : 41.8)
- Africa shows extreme SOC variability (IQR : 88.2 – 335.3), suggesting disruptive land-use factors

$C_{se\varphi}$ rates follow power-law scaling : $C_{se\varphi} = k(SOC)^n$, where k represents sequestration efficiency and $n \approx 0.3 - 0.5$ based on the data trends.

This quantitative framework highlights how fundamental soil carbon principles ($\Delta SOC/\Delta t$ = Inputs – Outputs) manifest differently across biomes, with Europe's high-stock systems contrasting sharply with Africa's variable-but-promising sequestration potential.

The equation

$$C_{seq} = k(SOC)^n \times \frac{\Delta}{SOC} \qquad \text{(eq. 1)}$$

serves to—

(1) demonstrate a plausible mathematical relationship,

(2) highlight non-linear scaling,

(3) ground analysis in biophysical principles.

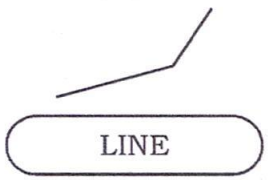
2. Prepare a PowerPoint presentation according to the following specifications : 10

(a) **Cover Slide :**

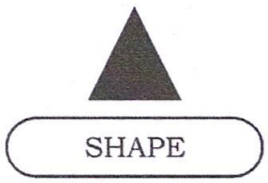
- Include the title **"ELEMENTS OF GRAPHIC DESIGN"** at the top of the slide.
- Add a text box at the bottom portion of the slide with the following dummy presenter details :
  - Name : [Advocate General]
  - Affiliation : [High Court]
  - Date : [Presentation Date]

(b) **Second Slide :**

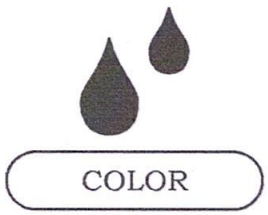
- Title : **"Various Shapes"**
- Recreate the exact diagrams provided below this instruction set in the PowerPoint slide.



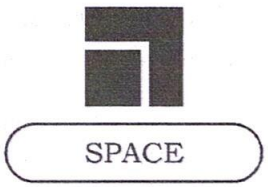
Line



Triangle



Oval



Angle

Note :

(1) Ensure all text uses **consistent font styles and sizes** (recommended : Title - 44 pt, Body - 28 pt).

(2) Maintain proper **alignment and spacing** for all elements.

(3) Use **appropriate colors and shapes** as shown in the reference diagrams.

(4) Save the file as Shapes.pptx.

3. Given the sales figure for the month of January 2025, perform the Sales Data Analysis using MS Excel based on the facts and figures given below : 10

Month	Product A	Product B	Product C
January	1500	900	1200
February	1800	1100	950
March	2200	1300	1400

Perform the following operations :

1. **Formulas & Calculations :**

   - Add a **"Total Sales"** column to calculate the sum of sales for each month.
   - Insert a **row below March** to compute **"Quarterly Averages"** for each product.

2. **Chart Creation :**

   - Create a Clustered Column Chart to compare monthly sales of all 3 products.
   - Add axis titles : "Month" (X-axis) and "Sales (₹)" (Y-axis).

3. **Formatting :**

   - Apply Currency Format (₹) to all sales values.
   - Highlight the highest monthly total in the "Total Sales" column using Conditional Formatting.

4. Create a Microsoft Access database to track library books according to the following specifications : 10

First, design a table named **Books** with these fields : **BookID** (AutoNumber, Primary Key), **Title** (Short Text), **Author** (Short Text), **Genre** (Short Text), and **YearPublished** (Number). Add 5 sample book records manually.

Next, create a form named **BookEntry** to allow easy data input. The form should include fields for Title, Author, Genre, and YearPublished, along with **Save** and **Cancel** buttons.

Finally, make a query named **RecentBooks** to list only books published after 2010, showing the Title, Author, and YearPublished. Save the query and close the database.

5. Answer the questions within *30 words* each from the following and save your answer in a word file : 2×5=10

(a) What is a computer program?

(b) Differentiate between software and hardware.

(c) What is LAN?

(d) Write two examples of system software.

(e) What is the main function of an operating system?

★★★

CONFIDENTIAL