Pearson Edexcel Computer Science
MODEL PAPER – GRADE 8
Covering Unit 3 and 4

1). Explain the terms Primary **Data** and **Secondary Data**

(Total: 4 Marks)

2). Classify the following data examples into **Primary Data** and **Secondary Data** by placing them in the correct column of the table below.
(Total: 8 Marks)

Data Examples:

1. Population statistics from a government census: **21 million**
2. Sales figures from an existing market report: **$500,000 revenue in Q1**
3. Number of people who attended your survey: **150 participants**
4. Unemployment rate from a published report: **4.8%**
5. Average age of respondents in your interview: **32 years**
6. Percentage of respondents who prefer online shopping: **65%**
7. Average rainfall data from a meteorological department: **120 mm/month**
8. Daily temperature readings you recorded: **28°C, 30°C, 29°C**

Primary Data	**Secondary Data**

3).Explain the terms **Data, Information, and Knowledge** *(Total: 6 Marks)*

4). Classify the following items into **Data**, **Information**, and **Knowledge**.
(Total: 12 Marks)

Items to Classify:

1. 120 km/h
2. The average monthly electricity bill is $2000.
3. 3 hours
4. A website had 10,000 views yesterday.
5. The temperature in Colombo today is 12°C.
6. 45% of respondents prefer online shopping.
7. 10,000 views
8. 2 liters
9. The car traveled at 120 km/h on the highway.
10. The meeting lasted 3 hours.
11. The average monthly electricity bill is $2000.
12. 45% of respondents prefer online shopping.

Data	Information	Knowledge

6). What is the main purpose of using a chart or graph to present data? *(Total: 3 Marks)*

7). List four types of charts and briefly describe their use. *(Total: 4 Marks)*

8). Consider the following survey questions and choose the **most appropriate chart or graph** to display the survey data. *(Total: 10 Marks)*

Survey Question	Pie Chart	Line Chart	Bar/Column Chart	Scatter Chart
1. Percentage of students using different social media platforms.				

2. Monthly sales figures for a store over the last 12 months.				
3. Comparing the prices of five different smartphone models.				
4. Relationship between hours of study and exam scores.				
5. Distribution of household expenses (rent, food, utilities, etc.).				
6. Temperature changes recorded daily for one month.				
7. Comparing the number of books read by students in different grades.				
8. Correlation between exercise time and weight loss progress.				
9. Market share of different car brands in a region.				
10. Growth of a company's revenue over the last five years.				

9). You are part of a team researching and presenting data to the public about the increased use of smartphones with young people.

You are creating a chart to display what percentage of certain times of the day young people are using their devices.

Describe a suitable chart type and three tips for ensuring the chart is clear and informative. *(Total: 4 Marks)*

10).

You are given the following spreadsheet containing **Date**, **Revenue**, **Expenses**, and **Profit** columns:

	A	B	C	D	E
1	**Date**	**Revenue**	**Expenses**	**Profit**	
2	2023-01-01	1000	500	500	
3	2023-01-02	1500	700	800	
4	2023-01-03	2000	800	1200	
5	2023-01-04	2500	600	1900	
6	2023-01-05	3000	900	2100	
7					
8					

Use spreadsheet functions to answer the following questions and **write the functions you used**:

Sub-Questions:

1. **What is the total revenue?***(2 Marks)*

2. **What is the total expenses?***(2 Marks)*

3. **What is the total profit?***(2 Marks)*

4. **What is the minimum revenue?***(2 Marks)*

5. **What is the maximum revenue?***(2 Marks)*

6. **What is the average revenue?***(2 Marks)*

7. **What is the count of revenue entries?***(2 Marks)*

8. **How many days had revenue greater than 2000?***(2 Marks)*

9. **How many days had expenses less than 800?***(2 Marks)*

10. **What is the average profit?***(2 Marks)*

11). Spreadsheet modeling often uses advanced tools to analyze and predict data. Answer the following questions:

Sub-Questions:

1. **Explain the advantage of using "What-If Scenarios" in spreadsheet modeling.**
   (5 Marks)

2. **Describe the purpose of the "Goal Seek" function in spreadsheet modeling and provide one practical example of its use.**
   (5 Marks)

12). Circuit boards are widely used in electronic devices, but their production and disposal raise environmental concerns. Answer the following questions:

Sub-Questions:

1. **List the materials commonly used in producing circuit boards.**
   (4 Marks)

2. **Identify the toxic or hazardous materials used in producing circuit boards.**
   (5 Marks)

3. **Explain the term "e-waste" and provide one example.**
   (5 Marks)

4. **Discuss two major problems caused by e-waste.**
   (5 Marks)