Certificate in Accounting and Finance (CAF) – Practice Test Series

Data, Systems and Risks

Chapter 1: Types of Data & Sources

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30 marks
1 hour (including 5 minutes' reading time)

Instructions to examinees:

(i) Answer all **FOUR** questions.

(ii) Answer in black pen only.

(iii) Use the first page of the answer script to answer the Multiple-Choice Questions.

SECTION A

Q.1 Select the most appropriate answer from the options provided for each of the following Multiple-Choice Questions (MCQs). Each MCQ carries **ONE** mark.

(i) Pearl Hotels Limited (PHL), Murree, classifies its rooms as "Standard", "Deluxe" and "Executive Suite". Each class is clearly higher than the one before it, but PHL cannot say that the step from Standard to Deluxe is equal to the step from Deluxe to Executive Suite. Which of the following types of data is demonstrated in the above scenario?

(a) Nominal data (b) Discrete data (c) Ordinal data (d) Continuous data

(ii) Amber Petroleum Limited (APL) operates fuel stations in Multan. For every sale, the dispensing nozzle records the quantity of fuel delivered, such as 23.68 litres, and the quantity can be any value within the tank's range. Which of the following types of data is demonstrated in the above scenario?

(a) Continuous data (b) Discrete data (c) Nominal data (d) Ordinal data

(iii) Jade Pharmacies Limited (JPL), Rawalpindi, has linked its inventory software to its main wholesaler's ordering system. Through a set of rules and tools provided by the wholesaler, JPL's software automatically fetches live stock availability every hour, without staff re-typing any data. Which of the following is demonstrated in the above scenario?

(a) HyperText Markup Language (HTML)

(b) JavaScript Object Notation (JSON)

(c) Natural Language Processing (NLP)

(d) Application Programming Interface (API)

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(iv) Onyx Publishing Limited (OPL), Karachi, stores its digital textbooks in a format in which each book contains units, each unit contains lessons and each lesson contains exercises. Every element is defined by custom tags in a nested hierarchy, rather than in tables, and the files are not meant for display as webpages. Which of the following is demonstrated in the above scenario?

(a) HyperText Markup Language (HTML)
(b) Extensible Markup Language (XML)
(c) Relational database (SQL)
(d) Natural Language Processing (NLP)

(v) Ruby Properties Limited (RPL), Lahore, signs all tenancy agreements electronically. A tenant has now claimed that his e-signed agreement has no legal standing. RPL's legal advisor relies on the Pakistani law that recognises the legal validity of electronic documents and transactions. Which of the following regulations is demonstrated in the above scenario?

(a) Electronic Transactions Ordinance (ETO) 2002
(b) Prevention of Electronic Crimes Act (PECA) 2016
(c) General Data Protection Regulation (GDPR)
(d) National Cyber Security Policy (NSCP)

(vi) Which of the following is **NOT** an example of discrete data?

(a) Flights landing at an airport in a day
(b) Defective tiles found in a production batch
(c) Complaints received by a call centre in a week
(d) Rainfall recorded in millimetres in a month

(06 marks)

SECTION B

Q.2 Emerald Sports Limited (ESL) owns a Karachi-based franchise in a national T20 cricket league. ESL's management has realised that it holds a large amount of data but uses very little of it in decision-making. A recently hired data analyst reviewed the franchise's operations before the new season and identified the following issues:

(i) Ticket sales for home matches are recorded with the seat number, stand, match date, ticket price and buyer's mobile number in fixed columns. Management wants stand-wise revenue for any match to be filtered and reported within minutes.

(ii) After every match, fans leave thousands of written comments on ESL's website about team selection. Management wants to know whether fans are generally pleased, unhappy or indifferent about the selection decisions.

(iii) The vendor of the players' fitness trackers sends daily readings in files where each value is labelled, such as <player>, <heart_rate> and <distance>, but the data is not arranged in rows and columns.

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(iv) Coaching staff write long free-text scouting reports describing opponents' strengths and weaknesses. Analysts want software that can read these reports and pick out the key points automatically.

Required:

For each of the above issues, identify the category of data involved and recommend the most appropriate tool or technique for processing it, giving a brief justification for each recommendation. (08 marks)

Q.3 (a) Explain any three sources of data and discuss the benefits of each to a business entity. (06 marks)

(b) Briefly explain four ethical principles that an organisation should consider in data collection. (04 marks)

Q.4 Quartz Eats Limited (QEL) runs a food delivery app in Hyderabad and Sukkur. To plan rider allocation for the coming Ramadan iftar rush, QEL is using order volumes from Ramadan three years ago, when it operated in only one city. Restaurant opening hours were copied from an old unofficial online directory that contains many wrong entries. At the same time, QEL's lengthy sign-up form asks customers for their favourite cricket team and wedding anniversary date, none of which is used in any planning. Last Ramadan, riders sat idle in some areas while deliveries were badly delayed in others.

Required:

Identify and briefly explain any three data collection risks arising from the above scenario. Also recommend an appropriate measure for each identified risk. (06 marks)

(THE END)

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