FNSINC612
ASSESSOR GUIDE

Interpret and use financial statistics and tools

Assessment 1 of 2

Short answer questions

Version 1

Assessment Instructions

Task overview

This assessment task consists of 13 short answer questions. Read each question carefully before typing your response in the space provided.

Additional resources and supporting documents

To complete this assessment, you will need:

- Access to your learning materials
- Access to a computer and internet
- Access to Microsoft Word (or a similar program)

Assessment Information

Submission

You are entitled to three (3) attempts to complete this assessment satisfactorily. Incomplete assessments will not be marked and will count as one of your three attempts.

All questions must be responded to correctly to be assessed as satisfactory for this assessment.

Answers must be typed into the space provided and submitted electronically via the LMS. Hand-written assessments will not be accepted unless previously arranged with your assessor.

Reasonable adjustment

Students may request a reasonable adjustment for assessment tasks.

Reasonable adjustment usually involves varying:

1. the processes for conducting the assessment (e.g. allowing additional time)
2. the evidence gathering techniques (e.g. oral rather than written questioning, use of a scribe, modifications to equipment)

However, the evidence collected must allow the student to demonstrate all requirements of the unit.

Refer to the Student Handbook or contact your Trainer for further information.

Please consider the environment before printing this assessment.

Short Answer Questions

Question 1

Describe the required work outcome from each analysis type:

Descriptive *[5 to 15 words]*	Find out what has happened or describe current circumstances
Diagnostic *[10 to 20 words]*	Find out the cause of what has happened or identify relationships between cause and effect
Predictive *[10 to 20 words]*	Find out what will happen in the future or forecast future outcomes in different scenarios
Prescriptive *[5 to 15words]*	Find out the best course of action or identify optimisation actions

Question 2

Describe each of three (3) data types listed below that help estimate operational expenses.

Previous years operational cost data *[50 to 70 words]*	Operating costs are associated with the maintenance and administration of a business on a day-to-day basis. Operating costs include direct costs of goods sold and other operating expenses—often called selling, general, and administrative, which include rent, payroll, and other overhead costs, as well as raw materials and maintenance expenses. Operating costs exclude non-operating expenses related to financing, such as interest, investments, or foreign currency translation.
Forecast Consumer Price Index (CPI) *[50 to 70 words]*	The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by a representative consumer for a typical basket of goods and services. The CPI attempts to quantify the average cost-of-living in a country by estimating the purchasing power of a single unit of its currency. It is the key indicator for measuring inflation.
Wage growth data (Wage Price Index) *[20to 30 words]*	The WPI measures changes in the price of labour, unaffected by compositional shifts in the labour force, hours worked or employee characteristics

Question 3

State whether each tool and technique is **<u>suitable</u>** or **<u>unsuitable</u>** to analyse current circumstances:

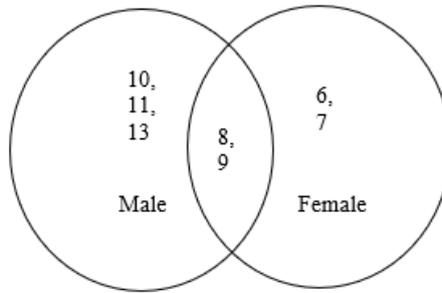|	
a) Current ratio	Suitable
b) Quick ratio	Suitable
c) Average stockholders' equity	Unsuitable
d) Accounts receivable turnover ratio	Unsuitable
e) Predictive analysis	Unsuitable
f) Prescriptive analysis	Unsuitable

Question 4

Interpret the data and plot the results in a Venn diagram to show the most common shoe sizes. *Instructions to create a Venn diagram in Word are included [here](#).*

Male	Female
8	6
9	7
10	8
11	9
13	

[This image is a model answer it should be removed in the student version of this document]
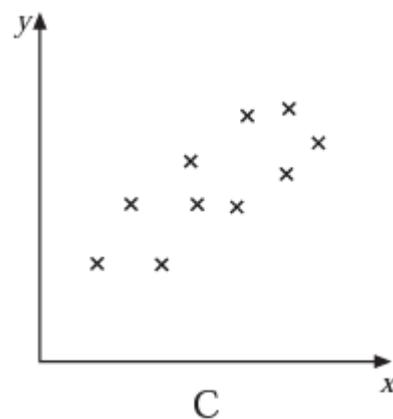
Question 5

Interpret the graphs and answer the questions:

Assessor instructions:

Students must demonstrate the ability to interpret graphical information to achieve a work outcome. In this part of the assessment, work outcomes are expressed as questions.

The student must provide the four correct interpretations given in the model answer.

	Your answer
a) Which graph shows a strong correlation?	A
b) Which graphs show positive correlation?	A, C
c) Which graph shows negative correlation?	B
d) Which graph shows a weak, positive correlation?	C

Question 6

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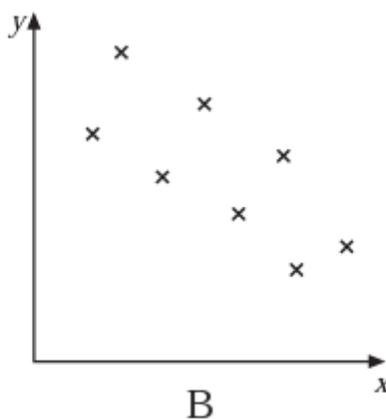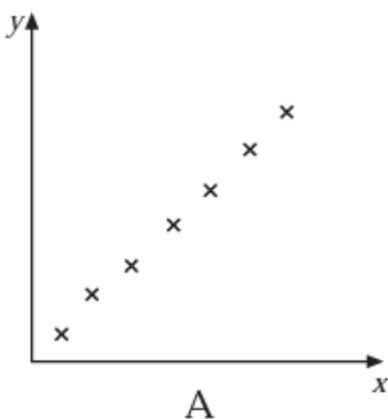
Identify the formula to calculate each ratio.

Current ratio *[5 to 10 words]*	Current ratio = Current assets ÷ current liabilities
Gross margin ratio *[10 to 15words]*	Gross margin ratio = total revenue – cost of goods sold ÷ total revenue
Inventory turnover ratio *[10 to 20 words]*	Inventory turnover ratio = cost of goods sold ÷ the average inventory for the same period
Debt to equity ratio *[5 to 10 words]*	Debt to equity ratio = total debt ÷ total assets
Dividend payout ratio *[5 to 10 words]*	Dividend payout ratio = annual dividend payments ÷ earnings

Question 7

Briefly outline the purpose of the ABS Data Quality Framework (ABS DQF).

Approximate word count: [40 to 50 words]

Question 8

Describe probability and non-probability sampling.

Probability sampling. *[30 to 40 words]*	Probability sampling involves the selection of a unit from a population such that each unit has a known probability of being selected. This type of sampling is often used in opinion polls and market research.
Non-probability sampling. *[30 to 40 words]*	Non-probability sampling is a method of sampling where units are selected in a way that does not give all units in the population an equal chance of being selected. This type of sampling is often used in convenience samples or when obtaining a list of all units in the population is difficult.

Question 9

Describe each of the following common types of data validation checks that can be used in statistical analysis.

Assessor instructions:

Students must describe each of the six checks used in statistical analysis.The answer provided by the student must reflect the exemplar answers below.

Data Type Check *[40 to 50 words]*	A data type check confirms that the data entered has the correct data type. A field might only accept numeric data. If this is the case, then any data containing other characters such as letters or special symbols should be rejected by the system.
Code Check *[40 to 60 words]*	A code check ensures that a field is selected from a valid list of values or follows certain formatting rules. It is easier to verify that a postal code is valid by checking it against a list of valid codes. The same concept can be applied to other items such as country codes and NAICS industry codes.
Range Check *[40 to 60 words]*	A range check will verify whether input data falls within a predefined range. Latitude and longitude are commonly used in geographic data. A latitude value should be between -90 and 90, while a longitude value must be between -180 and 180. Any values out of this range are invalid.
Format Check *[30 to 50 words]*	Many data types follow a certain predefined format. A common use case is date columns that are stored in a fixed format like "YYYY-MM-DD" or "DD-MM-YYYY." A data validation procedure that ensures dates are in the proper format helps maintain consistency across data and through time.
Consistency Check *[30 to 50 words]*	A consistency check is a type of logical check that confirms the data's been entered in a logically consistent way. An example is checking if the delivery date is after the shipping date for a parcel.

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Uniqueness Check *[30 to 50 words]*	Some data like IDs or e-mail addresses are unique by nature. A database should likely have unique entries on these fields. A uniqueness check ensures that an item is not entered multiple times into a database.

Question 10

Explain why each of the five (5) sources of information is relevant to the financial services industry

Source	Relevance
Reserve Bank of Australia *[20 to 30 words]*	*Produces a range of statistical data including sets that relate to payments, interest rates, money and credit, household and business finance, exchange rates share markets and inflation*
Australian Taxation Office (ATO) *[20 to 30 words]*	*Produces a range of statistical data including sets that relate to payments, liabilities, industry benchmarks, companies, superannuation, trusts, partnerships, personal and business payments*
Australian Bureau of Statistics (ABS) *[20 to 30 words]*	*Produces a range of statistical data including sets that relate to the labour force and demography, wages, prices, investments, incomes, and liabilities*
National Statistical Service (NSS) *[20 to 30 words]*	*Produces a range of statistical data including sets that relate to demography, agriculture, boundaries, climate, elevations, energy, environment, housing, health, and infrastructure*
Australian Securities and Investments Commission (ASIC) *[20 to 30 words]*	*Produces a range of statistical data including sets that relate to financial deposits and deposit taking institutions, general insurance, private health insurance and superannuation*

Question 11

Describe each of the following types of tables used in statistical analysis.

- Contingency Tables
- Two-variable tables
- Column tables

Assessor instructions:

Contingency Tables *[50 to 60 words]*	A contingency table is a tool used in statistics that helps to organise and analyse data. It is often used to compare two or more groups of data and can be used to test hypotheses. Contingency tables can be a helpful way to visualise data and see relationships between variables.
Two-variable tables *[20 to 30 words]*	A two-variable table would compare the data points and show how they are related. Two-variable tables are often used in statistics to show the relationship between two variables.
Column tables *[40 to 50 words]*	Column tables are used to organise and display data in a way that is easy to understand. Column tables can be used to compare data, find trends, and make predictions. They can also be used to compare two sets of data or to compare data over time.

Question 12

Describe how the Validity Criteria below help you ensure that data confirms to as set of defined formats or set of rules:

Assessor instructions:

Validity criteria	Indicators
Values match the data type *[40 to 50 words]*	Numerals have been inserted wherever numbers are required Whole numbers have been inserted unless decimals are required The word true or false has been entered where one or the other is required Numbers and words have been inserted in the correct order where a residential address is required
Data falls within the correct ranges *[40 to 50 words]*	A day between Monday to Sunday has been entered where a day of the week is required A date in the DD/MM/YYYY format has been entered where the days are between 1-31, the months are between 1-12, and the years are in the correct century
Mandatory data has been included *[5 to 10 words]*	There are no empty cells
Data is expressed in the correct format *[10 to 20 words]*	There are no spaces between numbers unless required Data is entered in the correct order

Question 13

Describe what you would include for each section of an analysis report.

Introduction [30 to 40 words]	Summary of the study and data, as well as any relevant substantive context, background, or framing issues. • The "big questions" answered by your data analyses, and summaries of your conclusions about these questions. • Brief outline of remainder of paper
Body [20 to 30 words]	The Body could be divided into several sections at the same level as the Introduction, with names like: • Data • Methods • Analysis • Results
Conclusion(s)/Discussion. [30 to 40 words]	The conclusion should reprise the questions and conclusions of the introduction, perhaps augmented by some additional observations or details gleaned from the analysis section. New questions, future work, etc., can also be raised here.
Appendix/Appendices. [30 to 40 words]	One or more appendices are the place to out details and ancillary materials. These might include such items as • Technical descriptions of (unusual) statistical procedures • Detailed tables or computer output • Figures that were not central to the argument

Assessment submission checklist:
Students must have completed all questions within this assessment before submitting. This includes:

1	13 short answer questions to be completed in the spaces provided.	☐

Congratulations, you have reached the end of Assessment 1!