



BSBTEC402

Design and produce complex spreadsheets

Assessment 1 of 3

Short Answer Questions

ASSESSOR GUIDE



Assessment Instructions

Task overview

This assessment is divided into **thirteen (13)** short answer questions. Read each question carefully before typing your response in the space provided.



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:

- the processes for conducting the assessment (e.g. allowing additional time)
- 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.

Question 1

Provide **two [2]** reasons why it is essential to take regular breaks while working at a computer.

[Approximate word count: 50-100 words]

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- include two [2] reasons of why it is essential to take regular breaks when working at a computer.

A sample answer is provided below.

1.	Taking regular short breaks for rest and movement is an important part of caring for your body at work.
2.	Staying in the same position and using the same muscles for hours at a time is not good for your back or neck, leading to the feeling of being tense across your shoulders, back, neck and arms.

Additional responses:

- Evidence suggests that prolonged sitting increases the risk of cancer and cardiovascular disease.
- The amount of time spent sitting remains a risk, even if you engage in regular exercise.

Question 2

What is the recommended frequency for taking rest breaks while working at a computer?

[Approximate word count: 14-25 words]

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- include the recommended frequency for taking rest breaks while working at a computer.

A sample answer is provided below.

The student must specify how often one should take a break when working at a computer. The response must demonstrate that a brief rest break should be taken every 30 to 60 minutes.

Question 3

Describe **three [3]** changes to work practices that can be undertaken to prevent reduce symptoms of overuse injuries.

[Approximate word count: 30-45 words]

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- describe three (3) changes to work practices that can be undertaken to prevent reduce symptoms of overuse injuries.

A sample answer is provided below.

1.	
2.	
3.	

The student's response must include any three of the following activities:

- standing up and stretching
- taking micro pauses, for example, moving one's hand off the mouse or keyboard when not in use
- exercises such as neck tilt, shoulder roll and/or backward shoulder press etc.
- standing up to read a document or talk on the telephone
- moving around and doing something different such as getting a drink of water or a cup of tea
- having a standing or walking meeting
- conducting administrative tasks away from the workstation
- walking over to talk to someone rather than emailing them
- going for a quick walk around the building
- using sit/stand workstations.

Question 4

The following table lists common organisational policies and procedures that provide general guidelines on how a business operates. Describe what information would be included in each of the policies and procedures regarding **spreadsheet design and use**.

[Approximate word count: 15 and 30 words each]

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- describe what information would be included in each of the policies and procedures listed in the table about spreadsheet design and use.

A sample answer is provided below.

Data Management Policy	Guidelines for designing, developing and saving spreadsheets and data management files used in producing, compiling and reporting data.
Privacy Policy	Guidance on collecting, maintaining, disclosing, storing, and destroying personal information contained in spreadsheets.
Work Health and Safety Policy and Procedure	Sets out a business's responsibility regarding the health and safety of its workers and others in the workplace. This includes following safe work practices when designing and using spreadsheets, such as guidelines regarding ergonomics.

Question 5

Outline **five (5)** techniques that can be implemented to conserve resources in an office environment. (Approximate word count: 50-60 words)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- outline five (5) techniques that can be implemented to conserve resources in an office environment.

A sample answer is provided below.

1.	
2.	
3.	
4.	
5.	

Responses must address any five (5) of the following techniques:

- Use office supplies that contain recycled materials and non-toxic products, such as paper and markers.
- Staff communications to be electronic, not paper based.
- Use electronic scheduling, inventory management and record-keeping systems.
- Limit photocopy machine use and use refillable or reusable toner cartridges.
- Encourage double-sided printing and a 'think before you print' campaign – is there a reason you need a printout of the document?
- Ensure office equipment and computers are powered down after hours.
- Make use of 'power save' modes on equipment.
- Use office equipment and appliances are energy efficiency models (energy star rating).
- Recycle or donate computers that are no longer needed.

- Encourage the use of laptops which tend to be more energy-efficient than personal computers/ PCs.
- Use PowerPoint for presentations rather than printed notes.
- Encourage staff to turn off lights when not in use.

Question 6

The following table lists **three (3)** advanced functions of spreadsheet software applications. Provide a brief definition for each,

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- provide a brief definition for each advanced functions of spreadsheet software applications,

A sample answer is provided below.

Advanced Function of Spreadsheet Software Applications	Definition (10-40 words each)
Pivot tables	Pivot tables are used to segment and summarise data for efficient analysis.
Macros	Macros are used for automating a series of steps that are frequently used in the same way for speed and consistency.
Conditional formatting	Conditional formatting is used to apply formatting to cells that meet specific parameters or criteria. It is most often used as colour-based formatting to highlight, emphasise, or differentiate among data and information stored in a spreadsheet.

Question 7

Describe **five (5)** key aspects that you could implement during spreadsheet formatting and design to enhance presentation and readability.

(Approximate word count: 50-100 words each)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- describe five (5) key aspects that could be implemented during spreadsheet formatting and design to enhance presentation and readability,

A sample answer is provided below.

1.	
2.	
3.	
4.	
5.	

The student's responses may address any five (5) of the following key aspects:

- **The use of font (characters with a similar design):**
 - Select a clear font such as Calibri or Helvetica to present data.
 - Limit the number of fonts used in a spreadsheet. Stick to one or two at most.
 - Use a clear hierarchy of font sizes. Important texts, such as headers, should be larger than sub-headers. Sub-headers should be larger than the data text.
- **Alignment (how data is displayed within a cell):**
 - Create a strong edge to spreadsheets by left-aligning all text data and right-aligning all numerical data. This improves readability and graphics consistency.
 - Don't use centre align as this causes the text to graphically "float" in the cell.
- **Spacing, shading, and gridlines**
 - Use white space to improve readability. Add white space to spreadsheets giving data additional room by adjusting column width and height. The vertical height of rows can also be increased to provide data with additional white space.
 - Shade alternate rows to improve readability, for example, using a light grey.
 - Use gridlines sparingly and don't place too much emphasis on the individual cell. For example, use a solid line for row borders and a dotted line for the column borders. Think of the gridlines as a guide for the reader's eye.
- **Headers (headers identify columns and rows of data within the spreadsheet).**
 - Define headers to make them clear and legible. Header text can be capitalised and bold.
 - "Wrap Text" as needed to wrap data or headers around the cell.

- **Colour**
 - Carefully consider a colour palette, for example, one or two colours that work well together.
- **Cell style (the various appearances that can be applied to a cell or the text contained within it).**
 - Create cell styles for consistency; for example, in MS Excel, use the “New Cell Style” button to customise and name a new style.
 - Use “Conditional Cell Formatting”. This is useful if your spreadsheet contains a lot of data, as you can use conditional formatting to highlight important information in a worksheet and enhance presentation.

Source: <https://archsmarter.com/9-steps-beautiful-spreadsheets/> [Accessed 12/11/2021]

Question 8

Describe the steps required to evaluate formulae in Excel using the Evaluate Formula tool.

[Approximate word count: 100-160 words]

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- describe the steps required to evaluate formulae in Excel using the Evaluate Formula tool.

A sample answer is provided below.

The student’s response must include the use of an “Evaluate Formula” function/dialogue box. Specifying how one can see the different parts of a nested formula evaluated in the order the formula is calculated.

For example, to test an MS Excel formula using the “Evaluate Formula” dialogue box, you would:

- Select the cell to be evaluated. Only one cell can be evaluated at a time.
- On the Formulas tab of the Ribbon click Evaluate Formula in the Formula Auditing group.
- The evaluate Formula dialog box will open
- Click Evaluate to examine the value of the underlined reference. The result of the evaluation is shown in italics. If the underlined part of the formula is a reference to another formula, click Step In to display the other formula in the Evaluation box. Click Step Out to go back to the previous cell and formula.
- Note: The Step-In button is not available for a reference the second time the reference appears in the formula or if the formula refers to a cell in a separate workbook.
- Continue until each part of the formula has been evaluated.
- To see the evaluation again, click Restart.
- To end the evaluation, click Close.

Source: <https://support.microsoft.com/en-us/office/evaluate-a-nested-formula-one-step-at-a-time-59a201ae-d1dc-4b15-8586-a70aa409b8a7> [Accessed 12/11/2021]

Question 9

Describe the steps required to evaluate the following formula in Excel using the F9 Key:

=IF([A1:A26]>65,"Don't Buy","Buy")

[Approximate word count: 40-60 words]

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- describe the steps required to evaluate the formula provided in Excel using the F9 Key.

A sample answer is provided below.

To test the Excel formulae =IF([A1:A26]>65,"Don't Buy","Buy") using the F9 key you would:

- Select the cell with the formula
- Press the F2 key or double click the selected cell to enter the Edit mode.
- Select the piece of the formula you want to evaluate.
- Press the F9 key to see the calculated value of the selection
- Evaluate the value of the selection
- Press the Esc key to return to working on the spreadsheet.

Question 10

List **two [2]** key ergonomic considerations for the items listed in the table provided.

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- list two [2] key ergonomic considerations for the items listed in the table provided.

A sample answer is provided below.

Items	Key considerations (10-20 words each)
a. Setting up of computer monitor or other display device	The student's responses may include any two [2] of the following key considerations: <ul style="list-style-type: none">• adjust screen height so that the top of the screen is at or slightly below eye level• eyes should look slightly downwards when viewing the middle of the screen• the monitor should be positioned an arm's length away from the body

	<ul style="list-style-type: none"> • screen brightness and contrast should be adjusted for clear and comfortable viewing • minimise screen reflection and glare by using an anti-glare filter.
b. Configuring a keyboard or mouse	<p>The student's responses may include any two (2) of the following key considerations:</p> <ul style="list-style-type: none"> • the keyboard should be positioned as central as possible • the keyboard is positioned at the same height as the elbows and forearms • the mouse should be positioned within easy reach and on the same surface as the keyboard • a soft mouse pad should be used to support the wrist • avoid pressing one's hands or forearms against the desk edge.
c. Adjusting a chair or workstation	<p>The student's responses may include any two (2) of the following key considerations:</p> <ul style="list-style-type: none"> • choose a chair that supports the spinal curve • adjust the height of the chair so that feet are resting flat on the floor or on a footrest • adjust the height of the chair so the knees and hips are at a 90-degree angle • adjust arm rests so that arms gently rest on them, and shoulders are relaxed • wrists should be straight and hands at or below elbow level • ensure there is clearance for knees under the desk • desk area should be deep enough to accommodate your monitor at the appropriate distance • desk area should accommodate everything you need within easy reach to avoid stretching.

Question 11

In the table below list **three (3)** complex spreadsheet functions that can be utilised in advanced spreadsheet production related to logic, mathematics, and statistics.

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer

- list three [3] complex spreadsheet functions that can be utilised in advanced spreadsheet production related to logic, mathematics, and statistics. The complete list can be found under the Formulas tab in Excel. A Benchmark answer has been provided below.

A sample answer is provided below.

Specialisation	Complex spreadsheet functions [3 functions for each]
Logical functions	Lookup, if, choose, true, false conditions
Mathematical functions	Square root, integer, absolute value, round, sequence, tan
Statistical functions	Standard deviation, count, maximum, minimum, average, count

Question 12

Using the table below, list the operators you would input into a Microsoft Excel spreadsheet to execute each of the listed mathematical operations.

Note: The first operator has been completed for you as an **example**.

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- list the operators you would input into a Microsoft Excel spreadsheet to execute each of the listed mathematical operations. The student must indicate the correct operator to be used in an Excel spreadsheet containing advanced functions to execute each of the listed mathematical operations. The student's response must specify the following operators:

Source: <https://www.ablebits.com/office-addins-blog/2015/12/17/excel-formulas-examples/> [Accessed 12/11/2021]

A sample answer is provided below.

Mathematical Operation	Operator
<i>Example:</i> Addition	+ (plus sign)
Subtraction Negation (reversing the sign)	- (minus sign)
Division	/ (forward slash)
Exponentiation (power of)	^ (caret)
Multiplication	* (asterisk)
Percentage	% (percent sign)

Question 13

Using the table below, define the comparison operator's meaning when using Microsoft Excel formulae to compare two values.

Note: *The first comparison operator has been completed for you as an example.*

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer
- define the comparison operator's meaning when using Microsoft Excel formulae to compare two values. The students must define what each of the comparison symbols/operators means in a Microsoft Excel spreadsheet.

Source: <https://www.ablebits.com/office-addins-blog/2015/12/17/excel-formulas-examples/> [Accessed 12/11/2021]

A sample answer is provided below.

Comparison operator	Meaning
<i>example:</i> =	<i>Equal to</i>
<>	Not equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

Assessment checklist:

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

13 short answer questions to be completed in the spaces provided	<input type="checkbox"/>
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Congratulations, you have reached the end of Assessment 1!

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