BSBTEC402

ASSESSOR GUIDE

Design and produce complex spreadsheets

Assessment 1 of 3

Short Answer Questions

Version 1

Assessment Instructions

Task overview

This is assessment one (1) of three (3) assessments for BSBTEC402 Design and produce complex spreadsheets.

This assessment requires you to answer 13 short answer questions to test your knowledge required of this unit.

To be assessed as competent, you must complete all tasks in the Assessment 1: Knowledge Questions template required.

You are required to download your assessment by clicking on the assessment document icon below (see Let's begin) and upload your completed assessment for submission.

Additional resources and supporting documents

To complete this assessment, you will need:

- Access to your learning materials
- Access to a computer and the internet
- Access to Microsoft Word

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.

Submission requirements

To be eligible to be deemed competent in this assessment, you are required to complete and submit this assessment document. Word documents will not be accepted. Please save any Word documents as PDF files before submitting.

Most modern web browsers can open and display a PDF file. However, if you have an older operating system, you may need a PDF reader installed on your device, such as the Acrobat Reader, available from Adobe.

Windows: Word 2013 and newer
Choose File > Export > Create PDF/XPS.

Windows: Word 2010
1. Click the File tab
2. Click Save As. To see the Save As dialogue box in Word 2013 and Word 2016, you have to choose a location and folder
3. In the File Name box, enter a name for the file, if you haven't already
4. In the Save as type list, click PDF (*.pdf).
   - If you want the file to open in the selected format after saving, select the Open file after publishing check box.
   - If the document requires high print quality, click Standard (publishing online and printing).
   - If the file size is more important than print quality, click Minimum size (publishing online).
5. Click Options to set the page to be printed, to choose whether markup should be printed, and to select output options. Click OK when finished.
6. Click Save.

macOS: Office for Mac
To save your file as a PDF in Office for Mac, follow these easy steps:
1. Click the File
2. Click Save As
3. Click File Format towards the bottom of the window
4. Select PDF from the list of available file formats
5. Give your file a name if it doesn't already have one, then click Export

For more detailed instructions, refer to Microsoft Support.

Assessment 1 Assessor Instructions

Purpose of the Task

This assessment requires the student to answer a set of written questions to demonstrate that they understand the knowledge required of this unit.

Reassessment Arrangements

If the student answers any questions in this assessment incorrectly, they will need to be given an appropriate time to resubmit. The student should only redo questions that are incorrect; however, they will need to resubmit the entire assessment.

Guidance to Assessors About this Task

The student can be given the opportunity to answer questions verbally if appropriate. Benchmark responses for each question have been provided.

QUESTION 1

In your own words, explain why it is important to take regular breaks when working at a computer workstation. (Response length approximately 100 words)
Answer The student must specify why taking regular breaks when working at a computer workstation is important. The student's response must include the following as a minimum: • Taking regular short breaks for rest and movement is an important part of caring for your body at work. • 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. Student's response may also include: • 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

Identify how often you should take a rest break when working at a computer. (Response length approximately 25 words)
Answer 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 reduce symptoms of or prevent overuse injuries. (Response length approximately 45 words)
Answer The students must describe three (3) activities that can be undertaken to take short breaks throughout the work period. 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

Organisational policies and procedures provide general guidelines on how a business operates. Describe what information would be included in each of the policies and procedures listed below about spreadsheet design and use. (Response length between 15 and 30 words per policy and procedure)	
Answer The student must describe what information on spreadsheet design and use would be contained in each of the organisational policies and procedures listed below. (Response length between 15 and 30 words per policy and procedure)	
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.

QUESTION 5

Outline five (5) techniques that can be implemented to conserve resources in an office environment. (Response length approximately 50 words)
Answer The student must outline five (5) techniques that can be implemented to conserve resources located in an office environment. 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

Use the space provided in the table below to define the following three (3) advanced functions of spreadsheet software applications. (Response length between 15 and 40 words per advanced function)	
Answer The student must define the following three (3) advanced functions of spreadsheet software applications. The student's response must include the following as a minimum:	
Advanced Function of Spreadsheet Software Applications	**Definition**
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. (Response length between 120 and 150 words)

Answer

The student must describe five (5) key aspects of spreadsheet formatting and design in relation to quality presentation and readability. 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 how you would evaluate formulae in excel using the Evaluate Formula tool. (Response length approximately 160 words)
Answer

The student must outline the steps they would take to test spreadsheet formulae. 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 how you would evaluate the following formula in excel using the F9 Key. (Response length approximately 100 words)

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

Answer

The student must outline the steps they would take to evaluate the formula =IF((A1:A26)>65,"Don't Buy","Buy") using the F9 Key. A correct response has been 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 each of the following:

a. setting up of computer monitor or other display device
b. configuring a keyboard or mouse
c. adjusting a chair or workstation

(Response length between 10 and 20 words per key ergonomic consideration)

Answer

a. The student must list two (2) key ergonomic considerations when setting up of computer monitor or other display device. The student's responses may include any two (2) of the following key considerations:
   - 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
   - screen brightness and contrast should be adjusted for clear and comfortable viewing
   - minimise screen reflection and glare by using an anti-glare filter.

Answer

b. The student must list two (2) key ergonomic considerations when configuring a keyboard or mouse. The student's responses may include any two (2) of the following key considerations:
   - 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.

Answer

c. The student must list two (2) ergonomic considerations when adjusting a chair or workstation. The student's responses may include any two (2) of the following key considerations:
   - 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.

Answer

The students must 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.

Specialisation:	Complex spreadsheet functions:
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****.*

Answer

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)

Mathematical Operation	Operator
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 meaning of the comparison operator when using Microsoft Excel formulas to compare two values.

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

Answer

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)

Comparison operator:	Meaning:
=	Equal to
<>	Not equal to

>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

Congratulations, you have reached the end of Assessment 1.