



# basic education

Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## **NATIONAL SENIOR CERTIFICATE**

**GRADE 12**

**COMPUTER APPLICATIONS TECHNOLOGY P1**

**NOVEMBER 2025**

**MARKS: 150**

**TIME: 3 hours**

**This question paper consists of 19 pages, an HTML tag sheet,  
an input mask character sheet, two pages for planning and  
a separate information sheet.**

**INSTRUCTIONS AND INFORMATION**

1. Owing to the nature of this practical examination, it is important to note that, even if you complete the examination early, you will NOT be permitted to leave the examination room until all the administrative tasks associated with the examination have been finalised. During the examination, the standard examination rules regarding leaving the examination room apply.
2. If you are working on the network, or the data files have been preloaded on your system, you must follow the instructions provided by the invigilator/teacher.
3. At the end of the examination, you must make sure that ALL your answer files are saved on the network/computer as explained to you by the invigilator/teacher.
4. Make absolutely sure that all files can be read. Do NOT save unnecessary files/folders and **do NOT hand in duplicate answer files/folders. Do NOT delete any original files that you did not work on.**
5. The information sheet that has been provided with the question paper **MUST BE COMPLETED AFTER THE THREE-HOUR EXAMINATION SESSION.** Hand it to the invigilator at the end of the examination.
6. A copy of the master files will be available from the invigilator. Should there be any problems with a file, you may request another copy from the invigilator.
7. This question paper consists of SEVEN questions. Answer ALL the questions.
8. Read through each question before answering or solving the problem. Do NOT do more than is required by the question.
9. Ensure that you save each document using the file name given in the question paper. Save your work regularly as a precaution against possible power failures.
10. You may NOT use any resource material.
11. Accuracy will be taken into account.
12. Ensure that the regional settings are set to South Africa and date and time settings, number settings and currency settings are correctly set.
13. In all questions involving word processing, you should set the language to English (South Africa). The paper size is assumed to be A4 Portrait, unless instructed otherwise. Use centimetres as the unit of measurement.
14. Ensure that the Developer tab and Ruler are activated.

15. Ensure that the decimal symbol is set as a full stop ('.') and the list separator is set as a comma (',').
16. Formulae and/or functions must be used for ALL calculations in questions involving spreadsheets. Use absolute cell references only where necessary to ensure that formulae are correct when you copy them to other cells in a spreadsheet....

**NOTE:** All formulae and/or functions should be inserted in such a manner that the correct results will still be obtained even if changes are made to the existing data.

17. You may NOT use a word processing program such as Word to answer the HTML question.
18. Borders around images or screenshots in this question paper are intended for clarity. Do NOT insert borders unless you are instructed to do so.
19. Use the correct settings or features in an application as required by a question.
20. The data files that you need to complete this question paper have been provided to you on the disk/CD/DVD/flash disk or on the disk space allocated to you. The files are provided in the form of a password-protected executable file.

Do the following:

- Double-click on the password-protected executable file:  
**CAT P1 Nov 2025 DATA.exe**
- Click on the 'Extract' button.
- Click the 'Show Password' check box.
- Enter the following password: **TG25#**
- Once extracted, verify the contents of the folder by opening one or more files.
- Delete the **.exe** file.
- Once the contents of the files have been verified, rename the folder **CAT P1 Nov 2025 DATA** with your examination number.

The list of files on the next page will be available in the folder.

• 1App	Image
• 1Courses	Word processing file
• 2Brochure	Word processing file
• 3Lecturers	Spreadsheet
• 4Students	Spreadsheet
• 5Records	Database
• 6_1Head	Image
• 6_1Home	HTML file
• 6_1Tech	Image
• 6_2Course	Image
• 6_2Popular	HTML file
• 7Letter	Word processing file
• 7NewStudents	Spreadsheet
• 7Stats	Spreadsheet

**SCENARIO**

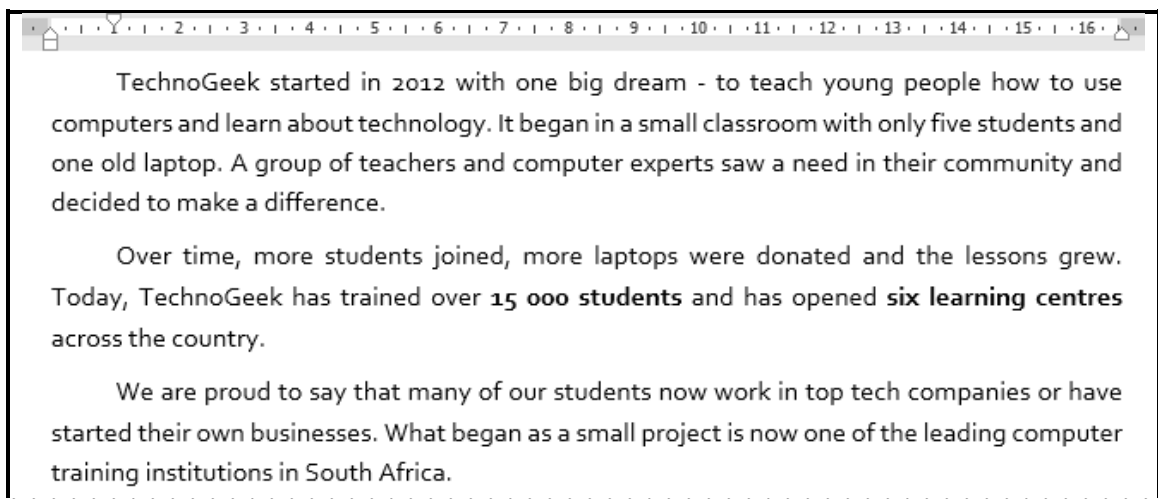
TechnoGeek is a tertiary institution that specialises in computer-related courses. They have designed a few documents to promote the institution and need your assistance with modifying the files.

**QUESTION 1: WORD PROCESSING**

Open the **1Courses** word processing document that contains information about the different types of courses that TechnoGeek offers.

Insert your examination number in the header of the document.

- 1.1 Set the proofing language of the whole document to English (South Africa). (1)
- 1.2 Modify the cover page as follows:
- Remove the black background from the image at the top of the page.
  - Move the alt text from the image with the caption 'Figure 1: Company logo' to the Address control. (2)
- 1.3 Find the heading 'Our journey' and apply a new style to the heading as follows:
- Name the new style 'Tech'.
  - Add a 3 pt paragraph border to the style. (3)
- 1.4 Format the paragraphs that starts with 'TechnoGeek started in ...' and ends with '... in South Africa.' to display as shown in the example below.



- 1.5 Find and replace the exact word 'Course' to display as follows: ↔ Info (3)
- Use the symbol ↔ (Webdings, character code 209). (4)

- 1.6 Find the citation below the subheading 'What is Data Science?'. Make the necessary changes so that the citation appears as follows:

(Sarker, 2024, p. 22).

(2)

- 1.7 Edit the paragraph below the heading 'Mobile App Development' to display as shown in the example below.


**NOTES:**

- Use the **1App** image found in your examination folder.
- Change the size of the image to the same size as the other images in the document.

### What is Mobile App Development?

Mobile App Development is the process of creating applications (apps) that run on smartphones and tablets. These apps can be used for many things - chatting with friends, learning, watching videos, managing money and playing games. In this course, you will learn how to design and build your own mobile apps, especially for Android phones.

This is a beginner course that teaches you the basic steps to develop an app from an idea to a working product. You do not need to be a coding expert - everything is taught in a simple, step-by-step way.



The illustration depicts the mobile app development process. It features a large smartphone in the center with various app icons on its screen. To the left, a person stands on a ladder, reaching up towards a lightbulb, symbolizing the idea phase. To the right, a construction crane is lifting a component, representing the building phase. Other elements include a Wi-Fi symbol, a gear, a potted plant, and various icons like a location pin, a mail symbol, and a document, all set against a background of stars and dots.

(4)

- 1.8 Find the word 'business' below the heading 'Networking Fundamentals' and mark ALL the occurrences of this word as an index entry.

(1)

- 1.9 Insert an automatic index below the heading 'Index' to appear in the modern format.

(2)

Save and close the **1Courses** document.

**[22]**

**QUESTION 2: WORD PROCESSING**

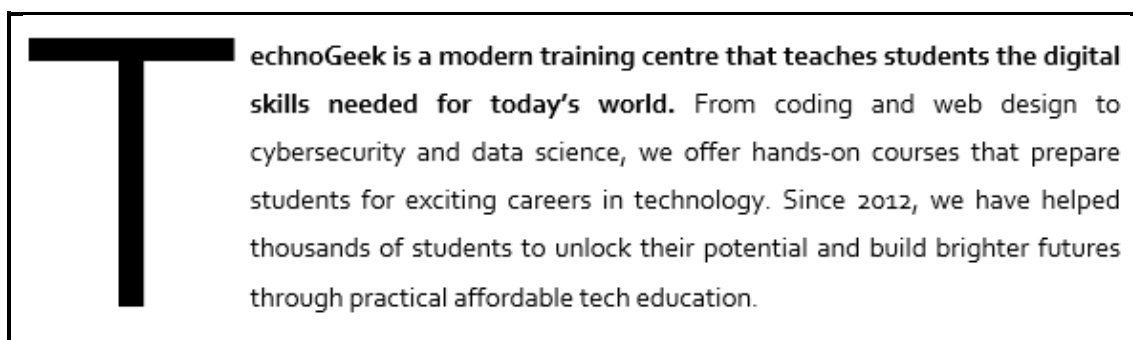
Open the **2Brochure** word processing document that contains information about the history and courses of the TechnoGeek institution.

Insert your examination number in the header of the document.

- 2.1 Add a Follow Path Arch Down transformation effect on the WordArt of the heading 'Prospectus'. (1)
- 2.2 Change the page border to only appear on the first page. Make sure that the border is measured from the edge of the page. (2)
- 2.3 Change the line spacing of the first paragraph that starts with 'TechnoGeek is a ...' to multiple at 1.4 pt. (1)
- 2.4 Change the 'T' in the first paragraph to display as shown in the example below.

**NOTE:**

- Change the font to Corbel Light.
- Set the distance from text to 0.2 cm.



- 2.5 Add a line between the columns on the second page. (1)

- 2.6 Modify the table below the heading 'Course prices' to display as shown in the example below.

**NOTE:** Use a formula to calculate the 10% administration fee on the cost that appears in **column D**.

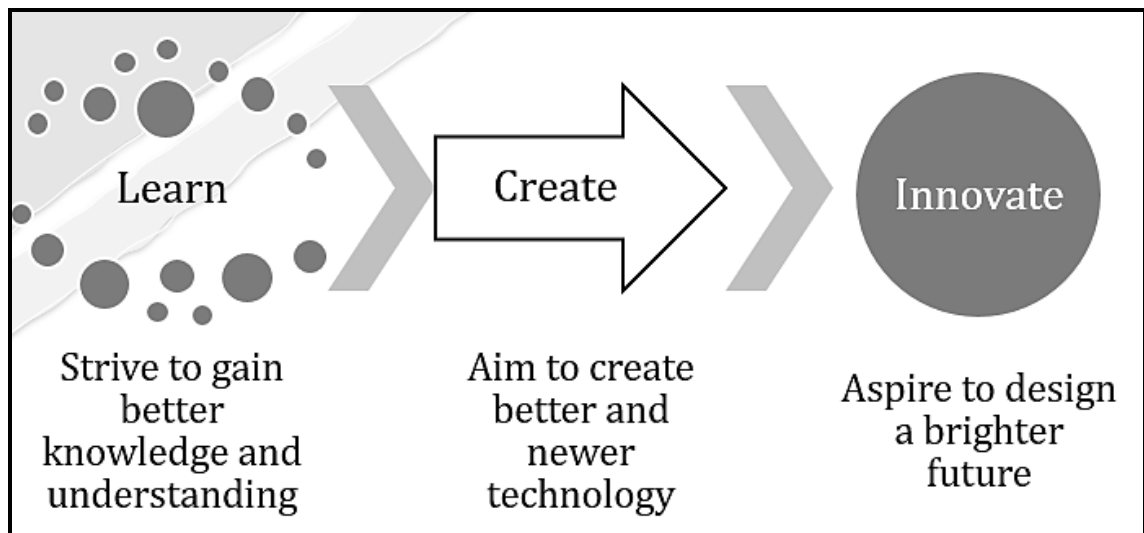
Course prices

Top 10 courses	Course name	Duration	Cost (R)	10% admin fee (R)
	Web Design	8 weeks	2000	200
	Programming Basics	10 weeks	2500	250
	Cybersecurity	12 weeks	3000	300
	Data Science	14 weeks	3500	350
	Computer Literacy	6 weeks	1500	150
	Artificial Intelligence Basics	10 weeks	3200	320
	Mobile App Development	10 weeks	2800	280
	Game Development	12 weeks	3000	300
	Database Management	8 weeks	2200	220
	Networking Fundamentals	10 weeks	2700	270

*Join us today and gain the skills you need for tomorrow.*

(6)

- 2.7 Find the SmartArt below the heading 'Slogan' and modify the SmartArt to display as shown in the example below.



(4)

- 2.8 Make sure that the page numbering in the footer appears on all the pages. Set the page number format of the last page to 'i', 'ii', 'iii', etc. and make sure that the number starts at 'i'.

(4)

Save and close the **2Brochure** document.

**[23]**



**QUESTION 3: SPREADSHEET****NOTE:**

- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references **ONLY** where necessary to ensure that formulae are correct when you copy it to other cells in a spreadsheet.
- Insert formulae and/or functions in such a manner that the correct results will still be obtained even if values are changed in the existing data.
- Should you need to use building blocks, use the space allocated for this in the spreadsheet data file.

Open the **3Lecturers** spreadsheet that contains information about the lecturers that teach at the different campuses of the TechnoGeek institution.

Work in the **Lecturers** worksheet.

- 3.1 Centre the contents of the worksheet horizontally and vertically. (1)
- 3.2 Insert a function in **cell D3** to determine the total number of lecturers. (1)
- 3.3 Insert a SUMIFS function in **cell D5** to determine the total monthly salary paid to South African lecturers who work full-time. (5)
- 3.4 Insert a formula in **cell D7** to calculate the difference between the highest monthly salary and the second highest monthly salary. (4)
- 3.5 Modify the function in **cell C15** to extract the first name of the lecturer. (5)
- 3.6 The full-time lecturers who are paid a monthly salary from R25 000 to R40 000 will receive a once-off bonus of R5 000.
- Calculate the bonus in **cell I14** that a lecturer will receive. If a lecturer will not receive a bonus, the cell must be left blank. (6)
- Save and close the **3Lecturers** spreadsheet. [22]

**QUESTION 4: SPREADSHEET****NOTE:**

- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references **ONLY** where necessary to ensure that formulae are correct when you copy it to other cells in a spreadsheet.
- Insert formulae and/or functions in such a manner that the correct results will still be obtained even if values are changed in the existing data.
- Should you need to use building blocks, use the space allocated for this in the spreadsheet data file.

Open the **4Students** spreadsheet that contains information about courses which part-time students will take during 2026.

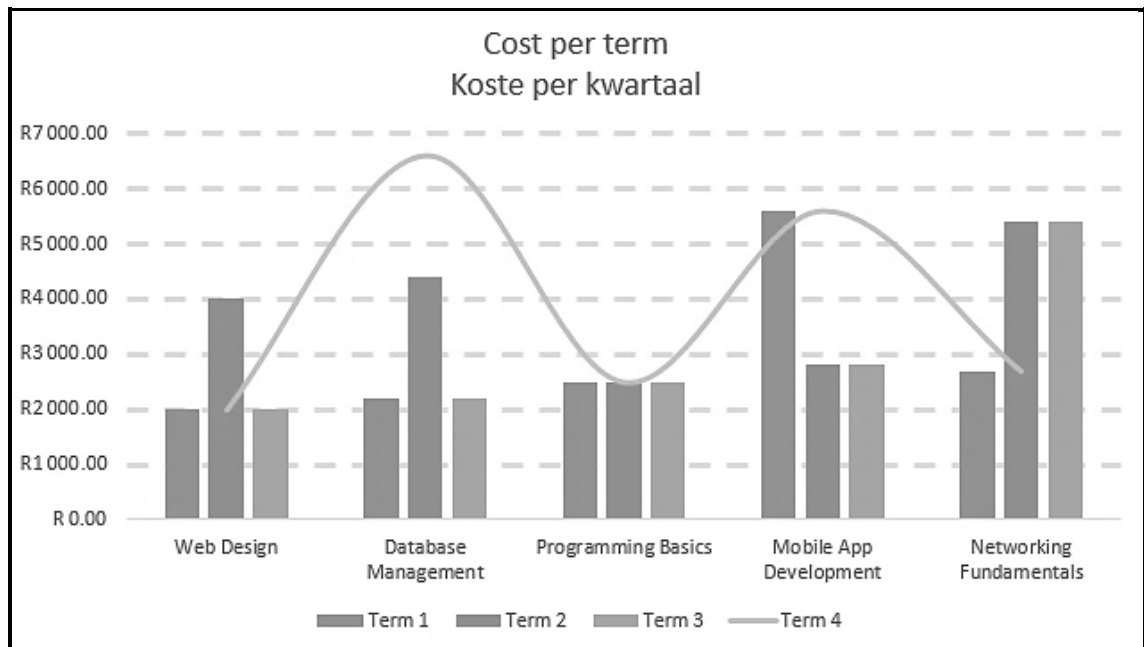
Work in the **Students** worksheet.

- 4.1 Change the tab colour to any orange colour. (1)
- 4.2 Use a spreadsheet feature that will allow the headings in **row 3** to remain on top when scrolling down. (1)
- 4.3 Students can pay for the course on a monthly basis for a year, or pay the full course cost at once.
- Insert a formula in **cell F5** to calculate the monthly cost for the course. Make sure that the amount is displayed with TWO decimal places. (3)
- 4.4 Modify the conditional formatting in **column E** as follows:
- Display a red cross icon if students attend training in the second half of the year;
  - Otherwise, display a green check icon if students attend training in the first half of the year. (4)
- 4.5 Use a LOOKUP function in **cell G8** to display the cost of the course for WP Mthembu. Use the information in the **Courses** worksheet. (5)

Work in the **Graph** worksheet.

4.6 Modify the chart/graph to display as shown in the example below.

**NOTE:** The 'Term 4'-line series is a smoothed line.



(4)

Save and close the **4Students** spreadsheet.

[18]

**QUESTION 5: DATABASE**

The database contains details of lecturers and students at the TechnoGeek institution.

Open the **5Records** database.

5.1 Open the **tbl5\_1** table in Datasheet View and edit the table as follows:

5.1.1 Make the following changes to the rows:

- Change the row height to 20 pt.
- Fill every alternative row with any blue colour.

(2)

Switch to Design View.

5.1.2 Edit the *ContactNo* field as follows:

- Change the properties to make this field compulsory.
- Add an input mask to accept a contact number in the format 082 569 2547.

(2)

5.1.3 Insert a new field called *Photo* below the *Qualification* field. Make sure that if an image is inserted, it will be embedded in the database.

(3)

5.1.4 Set the properties of the *LeaveDate* field to only accept dates from 1 September 2025 to 31 January 2026.

Add a descriptive message that would display if the incorrect date is entered.

(4)

Save and close the **tbl5\_1** table.

5.2 Modify the **frm5\_2** form, based on the **tblStudents** table, to display as shown in the example below.

Entry form

Name	Kgabo
Surname	Thwala
ID	0409194496086
ContactNo	086 392 5906
E-mail	k.thwala81@inbox.com

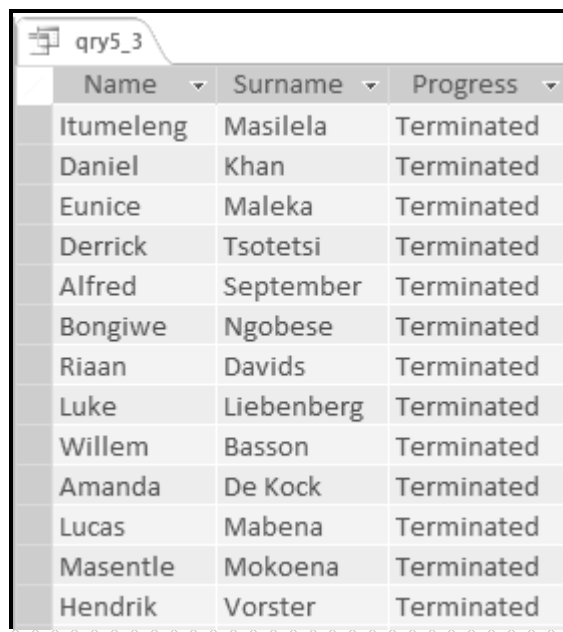
TechnoGeek  
LEARN. CREATE. INNOVATE.

Next Record

Save and close the **frm5\_2** form.

(3)

- 5.3 Create a query called **qry5\_3**, based on the **tblStudents** table, to display as shown in the example below.



Name	Surname	Progress
Itumeleng	Masilela	Terminated
Daniel	Khan	Terminated
Eunice	Maleka	Terminated
Derrick	Tsotetsi	Terminated
Alfred	September	Terminated
Bongiwe	Ngobese	Terminated
Riaan	Davids	Terminated
Luke	Liebenberg	Terminated
Willem	Basson	Terminated
Amanda	De Kock	Terminated
Lucas	Mabena	Terminated
Masentle	Mokoena	Terminated
Hendrik	Vorster	Terminated

Save and close the **qry5\_3** query. (2)

- 5.4 Open the **qry5\_4** query based on the **tblStudents** table in Design View.

Display a list of all the students whose progress is unknown and who still owe an amount of R3 500 or more. The outstanding amount should be displayed from the largest to the smallest.

Save and close the **qry5\_4** query. (3)

- 5.5 Open the **qry5\_5** query based on the **tblStudents** table in Design View.

Display only the *Name*, *Surname*, *FeesOutstanding* and *EnrolmentType* fields of all full-time students who either graduated or are still active, as well as any part-time student.

Save and close the **qry5\_5** query. (5)

- 5.6 Open the **qry5\_6** query based on the **tblStudents** table in Design View.

Create a new field called 'Age' to calculate the age of the students. Make sure that the age displays when the query is switched to Datasheet View.

Save and close the **qry5\_6** query. (5)

5.7 Open the **rpt5\_7** report based on the **tblStudents** table in Design View and do the following:

- Insert your examination number in the report header.
- Change the page orientation to landscape.
- Change the properties of the *Surname* field so that the surname is visible when you view the report.
- Group the report according to the *EnrolmentType* field. Make sure that the enrolment type displays once per group.
- Insert a function in the group footer to display the total number of students per enrolment type.

Save and close the **rpt5\_7** report.

(6)

Save and close the **5Records** database.

[35]

**QUESTION 6: WEB DESIGN (HTML)****NOTE:**

- You may NOT use a word processing program such as Word to answer the HTML questions.
- An HTML tag sheet has been attached for reference.
- All files needed to complete this question can be found in the examination folder.

A web page was created for the Home page of the TechnoGeek institution.

- 6.1 Open the incomplete **6\_1Home** file in a web browser and also in a text/HTML editor (NOT a word processing program such as Word).

Your final web page should look like the example below.



**NOTE:**

- Use the example on the previous page as a guideline when answering this question.
- Question numbers appear as comments in the coding to indicate where you should insert the answer(s). Do NOT delete these comments.

- 6.1.1 Insert the text 'TechnoGeek' to appear in the web browser tab. (1)
- 6.1.2 Set the background colour of the web page to '**#ADB9CA**'. (1)
- 6.1.3 Format the main heading 'TechnoGeek' and the image to appear horizontally in the middle of the page. (1)
- 6.1.4 The text 'Icons' should display if the **6\_1Head** image is not visible. (1)
- 6.1.5 Modify the HTML code to display the horizontal line as shown in the example on the previous page. Make sure that the thickness of the line is 5 pt. (2)
- 6.1.6 Insert a hyperlink on the text 'www.technogeek.org' at the end of the web page so that it links to the website: www.technogeek.org. (3)


Save and close the **6\_1Home** file.



- 6.2 Open the incomplete **6\_2Popular** file in a web browser and also in a text/HTML editor (NOT a word processing program such as Word).

Your final web page should look like the example below.

## Top 5 popular courses



Popular courses			
Course Name	Duration	Cost	Tools
Web Design	8 weeks	R2 000	HTML, CSS
Artificial Intelligence Basics	10 weeks	R3 200	Python, TensorFlow, AI Simulators
Game Development	12 weeks	R3 000	Unity, C#, Blender
Computer Literacy	6 weeks	R1 500	Microsoft Word, Excel, PowerPoint, Windows Operating System
Mobile App Development	10 weeks	R2 800	Android Studio, Java, Kotlin

Save and close the **6\_2Popular** file.

(5)

ONE mark will be allocated for closing tags and correct nesting in both web pages.

(1)

**[15]**

**QUESTION 7: GENERAL**

Open the **7Letter** document that contains an acceptance letter for new students.

7.1 Prepare a mail merge document as follows:

- Link the **7Letter** document with the **7NewStudents** spreadsheet.
- Select only students who enrolled for the 'Web Design' or the 'Game Development' courses.
- Add the *First name\_Voornaam* merge field to the letter.

Do NOT complete the mail merge.

(5)

Save and close the **7Letter** document.

Open the **7Stats** spreadsheet.

Work in the **TotalCost** worksheet.

7.2 TechnoGeek's head office wants to calculate the total income percentage in **cell C5** per course (**cell B5**).

Use the steps below to calculate the total income percentage for a specific course, as displayed in the example below.

Type of course Tipe kursus	Total income % per course Totale inkomste % per kursus
Web Design	17.83%
Web Design Artificial Intelligence Basics Mobile App Development Game Development Networking Fundamentals	

**Step 1:**

- Use a formula in **cell E8** to determine the total income for Web Design.

**Step 2:**

- Create a data validation drop-down list in **cell B5** and use the list in the **Courses** worksheet.

**Step 3:**

- Modify the function in **cell C5** so that the total income percentage per course is automatically calculated based on the type of course selected in **cell B5**.

(5)

Work in the **Time** worksheet.

7.3 Students who completed a course will collect their certificates in an allocated time slot on a specific day as follows:

- Times will be between 07:00 and 10:00 (inclusive).
- Time slots are in intervals of 15 minutes.
- There will be 12 intervals.

07:00	07:15	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30	09:45	10:00
0	1	2	3	4	5	6	7	8	9	10	11	12

Modify the function in **cell D3** to randomly generate a time slot for each student.

**NOTE:** Ignore if students have the same time slot.

(5)

Save and close the **7Stats** spreadsheet.

**[15]**

**TOTAL: 150**

## HTML TAG SHEET

Basic Tags	
Tag	Description
<body></body>	Defines the body of the web page
<body bgcolor="pink">	Sets the background colour of the web page
<body text="black">	Sets the colour of the body text
<head></head>	Contains information about the web page
<html></html>	Creates an HTML document – starts and ends a web page
<title></title>	Defines a title for the web page
 	Inserts a line break
<!-- -->	Comment
Text Tags	
Tag	Description
<h1></h1>	Creates the largest heading
<h6></h6>	Creates the smallest heading
<b></b>	Creates bold text
<i></i>	Creates italic text
<u></u>	Creates underlined text
<font size="3"></font>	Sets size of font, from "1" to "7"
<font color="green"></font>	Sets font colour
<font face="Times New Roman"></font>	Sets font type
Links Tags	
Tag	Description
<a href="URL"></a>	Creates a hyperlink
<a href="URL"></a>	Creates an image link
<a name="NAME"></a>	Creates a target location in the document
<a href="#NAME"></a>	Links to a target location created somewhere else in the document
<a href="mailto:#NAME"></a>	Links to an e-mail address
Formatting Tags	
Tag	Description
<p></p>	Creates a new paragraph
<p align="left">	Aligns a paragraph to the "left" (default), can also be "right" or "center"
<center></center>	Horizontally centres text, a section, table or an image
<ol></ol>	Creates a numbered list
<ol type="A","a","I","i","1"></ol>	Defines the type of numbering used
<ul></ul>	Creates a bulleted list
<ul type="disc","square","circle"> </ul>	Defines the type of bullets used

Formatting Tags continued	
Tag	Description
<li></li>	Inserted before each list item, and adds a number or symbol depending on the type of list selected
	Adds an image
	Aligns an image: can be "right", "bottom", "top"
<p align="center"></p>	Aligns an image in the "center", can also be "middle"
	Sets the size of the border around an image
	Sets the height and width of an image
	Displays alternative text when the mouse hovers over the image or when the image is not found
<hr/>	Inserts a horizontal line
<hr size="3"/>	Sets size (height) of a line
<hr width="80%"/>	Sets the width of a line, in percentage or absolute value
<hr color="ff0000"/>	Sets the colour of the line
Table Tags	
Tag	Description
<table></table>	Creates a table
<tr></tr>	Creates a row in a table
<td></td>	Creates a cell in a table
<th></th>	Creates a table header (a cell with bold, centred text)
<table width="50">	Sets the width of the table
<table border="1">	Sets the width of the border around the table cells
<table cellspacing="1">	Sets the space between the table cells
<table cellpadding="1">	Sets the space between a cell border and its contents
<tr align="left">	Sets the alignment for cell(s) ("left", can also be "center" or "right")
<tr valign="top">	Sets the vertical alignment for cell(s) ("top", can also be "middle" or "bottom")
<td colspan="2">	Sets the number of columns a cell should span
<td rowspan="4">	Sets the number of rows a cell should span

**INPUT MASK CHARACTER SHEET**

<b>CHARACTER</b>	<b>DESCRIPTION</b>
0	Digit (0 to 9, entry required, plus [+] and minus [-] signs not allowed)
9	Digit or space (entry not required, plus [+] and minus [-] signs not allowed)
#	Digit or space (entry not required; spaces are displayed as blanks while in Edit mode, but blanks are removed when data is saved; plus [+] and minus [-] signs allowed)
L	Letter (A to Z, entry required)
?	Letter (A to Z, entry optional)
A	Letter or digit (entry required)
a	Letter or digit (entry optional)
&	Any character or a space (entry required)
C	Any character or a space (entry optional)
. , : ; - /	Decimal placeholder and thousand, date and time separators (The actual character used depends on the settings in the <b>Regional Settings Properties</b> dialog box in the Windows Control Panel.)
<	Causes all characters to be converted to lower case
>	Causes all characters to be converted to upper case
!	Causes the input mask to display from right to left, rather than from left to right. Characters typed into the mask always fill it from left to right. You can include the exclamation mark anywhere in the input mask.
\	Causes the character that follows to be displayed as the literal character (e.g. \A is displayed as just A)

**YOU MAY USE THIS PAGE FOR ANY PLANNING PURPOSES.**

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Examination sticker

**150****COMPUTER APPLICATIONS TECHNOLOGY P1 – NOVEMBER 2025****INFORMATION SHEET** (to be completed by the candidate AFTER the 3-hour session)

CENTRE NUMBER \_\_\_\_\_

EXAMINATION NUMBER \_\_\_\_\_

WORK STATION NUMBER \_\_\_\_\_

SUITE USED (Mark appropriate box with a cross (X))	Microsoft Office 2016	Microsoft Office 2019	Microsoft Office 2021	Office 365	
WEB BROWSER USED (Mark appropriate box with a cross (X))	Mozilla Firefox	Google Chrome	Internet Explorer	Microsoft Edge	Other (Specify)

FOLDER NAME \_\_\_\_\_

Candidate must enter the file name(s) used for each answer. Tick if saved and/or attempted.

Question Number	File name	Saved (✓)	Attempted (✓)	Maximum Mark	Mark Achieved	Marker Initial/ Code
1	1Courses			<b>22</b>		
2	2Brochure			<b>23</b>		
3	3Lecturers			<b>22</b>		
4	4Students			<b>18</b>		
5	5Records			<b>35</b>		
6	6_1Home			<b>15</b>		
	6_2Popular					
7	7Letter			<b>15</b>		
	7Stats					
<b>TOTAL</b>				<b>150</b>		

Comment (for office/marker use only):

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