



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATION

COMPUTER APPLICATIONS TECHNOLOGY P2

2015

MARKS: 150

TIME: 3 hours

This question paper consists of 15 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of:

SECTION A (25 marks)
SECTION B (75 marks)
SECTION C (50 marks)
2. Answer ALL the questions.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question (QUESTION 1, 2, 3, et cetera) on a NEW page.
5. Do NOT write in the right-hand margin of the ANSWER BOOK.
6. Leave a blank line after EACH subquestion.
7. In general, a mark is allocated per fact. A 2-mark question would therefore generally require TWO facts, et cetera.
8. Write neatly and legibly.

SECTION A**QUESTION 1: MATCHING ITEMS**

Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (A–S) next to the question number (1.1–1.10) in the ANSWER BOOK, for example 1.11 T.

COLUMN A		COLUMN B	
1.1	A website that allows users to keep an online diary	A	metadata
1.2	A device built into a laptop that can be used as a keyboard and a mouse	B	absolute cell referencing
1.3	Transferring data from a database to a spreadsheet without retyping or copying and pasting the data	C	validation text
1.4	An operating system typically used on a tablet	D	file extension
1.5	The error message displayed if a user enters invalid data in a database field	E	conditional formatting
1.6	Software that allows the computer to change spoken words into text	F	pharming
1.7	A way to make sure that cell addresses do not change when a formula is copied	G	speech recognition
1.8	A term used to describe any type of high-speed Internet connection	H	formatting
1.9	A technique used to take a user to a fake website even if the correct address was entered in the browser	I	bandwidth
1.10	Additional information about a document, such as the name of the author	J	podcast
		K	blog
		L	Firefox
		M	phishing
		N	exporting
		O	OCR
		P	touch screen
		Q	broadband
		R	validation rule
		S	Android

(10 x 1)

[10]

QUESTION 2: MULTIPLE-CHOICE QUESTIONS

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (2.1–2.10) in the ANSWER BOOK, for example 2.11 D.

- 2.1 Which ONE of the following refers to a new program being added to a computer?
- A Hibernation
 - B Installation
 - C Application
 - D Fragmentation
- (1)
- 2.2 Which ONE of the following file extensions shows that it is an image file?
- A .bmp
 - B .exe
 - C .pdf
 - D .rar
- (1)
- 2.3 Which ONE of the following is a program that seems to be useful but really contains malware such as a virus?
- A Cookie
 - B Spam
 - C Trojan
 - D Hoax
- (1)
- 2.4 Which ONE of the following protects legal ownership of electronic material?
- A File size
 - B Properties
 - C URL
 - D Copyright
- (1)
- 2.5 Which ONE of the following is a set of guidelines for proper behaviour, such as not using only capital letters in an electronic message?
- A EULA
 - B AUP
 - C Netiquette
 - D Law
- (1)

- 2.6 Which ONE of the following types of graph is the most appropriate for presenting trends over a period of time?
- A Line chart
 - B Column chart
 - C Bar chart
 - D Pie chart
- (1)
- 2.7 Which ONE of the following is a spreadsheet function used to highlight cells that satisfy specific criteria?
- A IF
 - B Text wrapping
 - C Conditional formatting
 - D VLOOKUP
- (1)
- 2.8 Which ONE of the following is the most suitable data type for storing cellphone numbers in a database table?
- A Text
 - B Number
 - C Yes/No
 - D Hyperlink
- (1)
- 2.9 Which ONE of the following appears at the bottom of the page providing an explanation/giving more detail about text contained on that page?
- A Page numbering
 - B Styles
 - C Headers and footers
 - D Footnotes
- (1)
- 2.10 Which ONE of the following is an example of a web browser?
- A Yahoo!
 - B WhatsApp
 - C Access
 - D Chrome
- (1)
[10]

QUESTION 3: TRUE/FALSE ITEMS

Indicate whether each of the following statements is TRUE or FALSE. Write 'true' or 'false' next to the question number (3.1–3.5). If the statement is FALSE, change the underlined word(s) to make the statement TRUE. Write only the appropriate word(s) next to the question number.

EXAMPLE:

QUESTION	ANSWER
The <u>digital divide</u> is characterised by unequal access to ICT by different groups of people.	True
Computer program instructions are executed by the <u>RSS</u> .	False – CPU

- 3.1 Icons, toolbars and buttons are all typical components of a GUI. (1)
- 3.2 A port is software that monitors and controls access between a computer and the Internet. (1)
- 3.3 A scanner is an output device. (1)
- 3.4 The content of the RAM will be lost if there is a power outage. (1)
- 3.5 The shortcut Ctrl+S is commonly used for pasting text that you have copied or cut. (1)
- [5]**

TOTAL SECTION A: 25

SECTION B**QUESTION 4: SYSTEMS TECHNOLOGIES**

- 4.1 State TWO advantages of **using** a wireless keyboard as opposed to a wired keyboard. (2)
- 4.2 Name TWO devices necessary for video conferencing besides the actual computer or computer device being used. (2)
- 4.3 A multifunction printer saves space in an office.
- 4.3.1 State TWO functions, other than printing, that this device can perform. (2)
- 4.3.2 State ONE potential disadvantage of a multifunction printer. (1)
- 4.4 Explain why a computer power user, such as an architect, would need a computer with higher specifications. (2)
- 4.5 Give TWO ways in which computers can be used to benefit the environment. (2)
- 4.6 Give TWO hardware specifications that need to be considered when buying a printer. (2)
- 4.7 Explain what the term *convergence* means by referring to a suitable example. (2)
- 4.8 A keyboard has stopped responding.
- State TWO possible ways in which this problem can be solved without replacing the keyboard. (2)
- 4.9 The free space left on a flash drive is less than the size of the document you need to copy to it.
- Suggest a solution to copy the document to the flash drive without changing the contents of the document or removing any files from the flash drive. (1)
- 4.10 Purchasing a computer requires comparing various needs against computer specifications.
- 4.10.1 Which TWO components in general have a significant effect on the performance of a computer? (2)
- 4.10.2 What name is given to the fast **electronic** device that can replace a hard drive? (1)
- 4.11 Give TWO uses for text-to-speech software. (2)
- 4.12 Give TWO reasons why it may be better to run tasks such as defragmentation or virus scans while you are not doing anything else on the computer. (2)
- [25]**

QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES

- 5.1 Which component in a computer allows you to connect to a network? (1)
- 5.2 Give TWO examples of where the government provides services via the Internet. (2)
- 5.3 Give TWO reasons why a school should not use Twitter to send learners' examination results to parents. (2)
- 5.4 Why is it important to have different user accounts on a network? (1)
- 5.5 Give TWO advantages of using VoIP instead of a normal telephone call. (2)
- 5.6 What is the major difference between a *LAN* and a *WAN*? (1)
- 5.7 Suggest TWO ways to make a website user-friendly. (2)
- 5.8 State TWO ways in which you can transfer files between a smartphone and a computer. (2)
- 5.9 How can you send a file electronically to another person if it is too large to send as an attachment to an e-mail? (2)
- [15]**

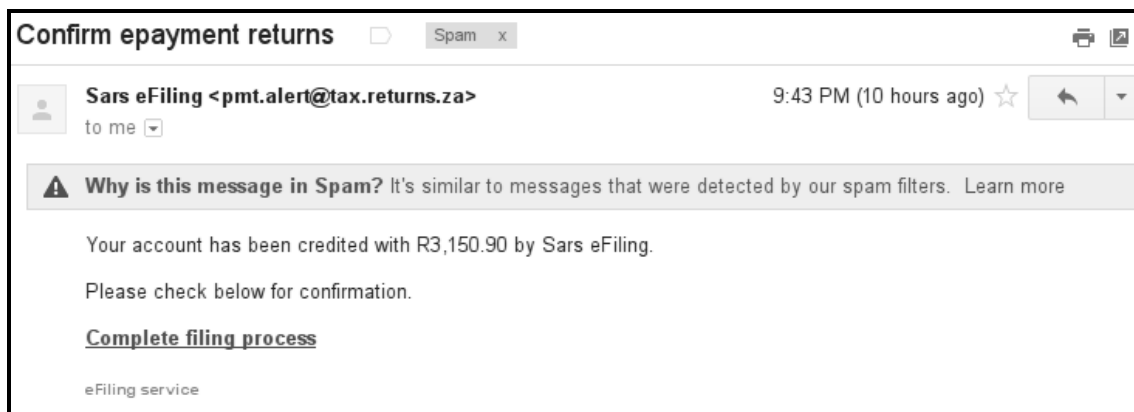
QUESTION 6: INFORMATION MANAGEMENT

- 6.1 Word processors are valuable tools for creating reports.
- 6.1.1 What is the general term used to describe the process where a graph is added to a document so that it updates (automatically) when the original data is changed or updated?
- NOTE:** Do NOT give a description of the process. (1)
- 6.1.2 Give TWO advantages of using form fields in an electronic questionnaire. (2)
- 6.1.3 Name the feature in a word processor that is used to point a hyperlink to a place within the same document. (1)
- 6.2 State TWO possible sources of information besides the Internet. (2)
- 6.3 Describe TWO ways in which you would establish the objectivity of a source. (2)
- 6.4 Give ONE advantage of asking users to fill out a survey form electronically as opposed to handing out printed questionnaires. (1)
- 6.5 What is meant by the term *plagiarism*? (1)
- [10]**

QUESTION 7: SOCIAL IMPLICATIONS

7.1 Name TWO potential physical health problems caused by frequent use of ICTs. (2)

7.2 Study the screenshot below and answer the questions that follow.



7.2.1 Which TWO elements in this e-mail may have been the reason why the service provider identified the e-mail as spam? (2)

7.2.2 Why can this e-mail also be regarded as phishing? (1)

7.2.3 Suggest THREE ways in which you should deal with e-mails of this nature. (3)

7.3 State TWO advantages of telecommuting. (2)
[10]

QUESTION 8: SOLUTION DEVELOPMENT

- 8.1 What is the purpose of the Thesaurus function in a word processor? (1)
- 8.2 Give TWO advantages of using the Track Changes feature in a word processor. (2)
- 8.3 Give TWO benefits of using styles when formatting a word processing document. (2)
- 8.4 Which feature of a spreadsheet would you use to copy a function down to the cells below it without copying and pasting it? (1)
- 8.5 Give ONE reason for using the 'Paste Special' option in a spreadsheet instead of the normal 'Paste' option. (1)
- 8.6 What is the purpose of a comment in an HTML file? (1)
- 8.7 Give TWO possible reasons for hyperlinks not working on a saved HTML page. (2)
- 8.8 Explain what a *primary key* is in a database table. (2)
- 8.9 Explain what a *wizard* is by referring to ONE suitable example from a database. (2)
- 8.10 Why would it not be appropriate to use a default value in a field that stores a person's surname in a database table? (1)
- [15]**

TOTAL SECTION B: 75

SECTION C**QUESTION 9: INTEGRATED SCENARIO**

The principal of your school will be interviewing Mr Dell with the intention of appointing him as an IT support technician. The school principal has asked the CAT class to help him set up a list of questions to use during the interview.

9.1 Mr Dell would have to be able to install computers in the school.

State THREE ergonomic (health and safety) issues to think of when preparing the classroom before choosing and installing computers. (3)

9.2 Study the specifications of a computer below and answer the questions that follow.

Intel Core i3 1.9 GHz 4 GB RAM 500 GB hard drive DVD writer 21.5" LED touch screen 2 GB dedicated graphics card 802.11 b/g/n 1 x VGA port 1 x HDMI port

9.2.1 The VGA port and the HDMI port can both be used to connect monitors to the computer.

Give ONE advantage of using the HDMI port instead of the VGA port. (1)

9.2.2 How much permanent storage space is available on the computer? (1)

9.2.3 Explain how using a dedicated graphics card can improve the performance of a computer. (1)

9.2.4 How much primary memory does the computer have? (1)

9.2.5 Which ONE of the **devices** in the specifications can be described as **both** an input and an output device? (1)

9.2.6 Which specification indicates that the computer will be able to connect to a wireless network? (1)

- 9.3 Mr Dell will need to regularly update or replace software on the computers.
- 9.3.1 Give TWO reasons why it is a good idea to update software regularly. (2)
- 9.3.2 What is a *patch*? (1)
- 9.3.3 Mr Dell would like to install shareware on the computers.
- Explain what *shareware* is and what the advantage would be of using it. (2)
- 9.3.4 The school principal would like to install a program that converts documents to PDF files.
- Why would the school convert circular letters to PDF format before e-mailing them to parents? (1)
- 9.4 Mr Dell will have to create a blog to communicate important events and sports results to parents.
- Give TWO ways in which he can increase the likelihood that people read the blog regularly. (2)
- 9.5 State ONE way to prevent advertisements from appearing when browsing the Internet. (1)
- 9.6 Explain what is meant by the term *disk fragmentation*. (1)
- 9.7 Learners need to make printouts.
- Explain what the specifications below would mean with reference to printers. Do NOT simply write down what the abbreviations stand for.
- 9.7.1 ppm (1)
- 9.7.2 dpi (1)
- 9.8 The school wishes to install entry-level computers.
- What is an *entry-level computer*? (1)
- 9.9 Mr Dell would like to use biometric security to log on to the server.
- Give TWO advantages of using biometric security. (2)

- 9.10 The computers in the school are all linked to a single network.
- 9.10.1 Give TWO advantages of connecting computers in a network. (2)
- 9.10.2 Mr Dell has the option of installing a wireless network.
- Give TWO potential disadvantages of a wireless network compared to a cabled network. (2)
- 9.11 Mr Dell will be responsible for creating a list of backup tips for the school.
- 9.11.1 Give TWO useful tips to consider regarding the backing up of data. (2)
- 9.11.2 Mr Dell wishes to store data in the cloud.
- Give TWO advantages of cloud storage. (2)
- 9.12 Explain the possible cause of each of the following problems:
- 9.12.1 A wireless mouse is not moving the cursor on the screen, even though the computer has not frozen. Mr Dell is sure that the mouse is not broken. (1)
- 9.12.2 A page sent to the printer did not print, even though the printer is plugged in, connected correctly and the power is switched on. (1)
- 9.13 The school principal wishes to ask Mr Dell some questions about using the Internet.
- 9.13.1 Explain the difference between a *web browser* and a *search engine*. (2)
- 9.13.2 Give TWO advantages of using e-banking from a client's perspective. (2)
- 9.13.3 Mr Dell wants to install software to prevent malicious programs (malware) from infecting any of the computers.
- Give ONE suitable example of a program that could be used for this purpose. (2)
- 9.13.4 Explain what a *keylogger* is and why it is dangerous. (2)
- 9.14 Mr Dell would be responsible for the enforcement of the school's AUP (acceptable use policy).
- Name TWO items that may appear in the AUP of a school. (2)

9.15 The staff may need Mr Dell's assistance.

One of the teachers created the following spreadsheet for recording marks:

	A	B	C	D	E
1	Theory Test	Practical Test	Project	Subtotal	Term Mark
2	50	40	90	180	100
3	23	35	84	142	78.9
4	12	29	65	106	46.5
5	19	33	55	107	27.6
6	34	39	58	131	20.1

9.15.1 Which feature of the spreadsheet application did she use to place the words underneath each other within the same cell in row 1? (1)

9.15.2 The formula below was used in cell E3 and then copied down to the rest of the column. The formula worked correctly in cell E3, but displays incorrect marks for the rest of the column.

=D3/\$D\$2*E2

Rewrite the function to correctly calculate the term mark if it were copied down to the whole column again. (1)

9.15.3 What function should be used to find the number of marks in column E that are greater than 75? (1)

9.15.4 What function should be used to determine the total of all the marks above 75? (1)

9.15.5 Give TWO reasons why a spreadsheet is the best program for a teacher to store and process marks. (2)

TOTAL SECTION C: 50
GRAND TOTAL: 150