



Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

NOVEMBER 2017

COMPUTER APPLICATIONS TECHNOLOGY P2

MARKS: 150

TIME: 3 hours



This question paper consists of 16 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 on a NEW page.
5. Do NOT write in the right-hand margin.
6. Leave a line between each sub-question.
7. In general, one mark is allocated per fact. A 2-mark question would therefore require TWO facts, et cetera.
8. Write neatly and legibly.

SECTION A

QUESTION 1: MATCHING ITEMS

Choose a term/concept from COLUMN B that best matches the description in COLUMN

A. Write only the letter (A – O) next to the question number

(1.1 – 1.10) in the ANSWER BOOK, for example 1.11 Q.

COLUMN A		COLUMN B	
1.1	A technique used to prevent unauthorised use of sensitive information.	A	Web authoring software
1.2	A type of software application for creating web pages.	B	Cookie
1.3	Technology that allows voice communication to be transferred over a network in the same way as data.	C	Server
1.4	A device that can be used to protect a computer against power spikes, surges and outages.	D	Barcode
1.5	The relationship between the width and the height of a display device.	E	Clipboard
1.6	Small text file created by websites on your computer.	F	Clients
1.7	An interactive dialogue that helps you to complete a task by asking certain questions.	G	Aspect ratio
1.8	A series of stripes indicating a unique identifying number.	H	UPS
1.9	Temporary location for information that you wish to paste into another program.	I	Wizard
1.10	Computer that provide services or resources to other computers in a network.	J	RSS
		K	Contrast ratio
		L	Lumen
		M	Encryption
		N	VoIP
		O	ICT

(10 x 1) [10]

QUESTION 2: MULTIPLE-CHOICE QUESTIONS

Various options have been provided as possible answers to the following questions. Choose the most appropriate 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 E.

- 2.1 Which ONE of the following would be the most suitable computer type for processing massive amounts of information, such as weather forecasting?
- A Tablet PC
 - B Server
 - C Laptop
 - D Super computer
- (1)
- 2.2 This button will download a fresh copy of the website being viewed:
- A Stop
 - B Refresh
 - C Forward
 - D Back
- (1)
- 2.3 An e-mail message that promises the school principal that he will receive large amounts of money if he forwards this e-mail to at least 10 people is called a ...
- A driver.
 - B hoax.
 - C trojan.
 - D firewall.
- (1)
- 2.4 Which ONE of the following components will probably improve the performance of a PC the most?
- A Increasing the refresh rate of the monitor.
 - B Adding a DVD drive.
 - C Installing antivirus software.
 - D Adding more memory (RAM).
- (1)
- 2.5 Which database object would be the best to use when entering or editing data in a database, by a user not familiar with a database application such as Microsoft Access?
- A Query
 - B Report
 - C Form
 - D Table
- (1)

- 2.6 In a database, a table should include a field that uniquely identifies each record. This field is known as the ...
- A identity number.
 - B autonumber.
 - C source code.
 - D primary key. (1)
- 2.7 Which function would you use to count the number of cells that meet a certain criteria.
- A COUNT
 - B COUNTIF
 - C COUNTA
 - D SUM (1)
- 2.8 Which ONE of the following is the term for software that gathers information about a person or organisation without their knowledge and then sends such information to another entity?
- A Freeware
 - B Malware
 - C Shareware
 - D Spyware (1)
- 2.9 Which ONE of the following utilities can be used to reuse more storage space available by removing temporary files?
- A Disk cleanup
 - B Backup software
 - C Disk defragmenter
 - D Recycle bin (1)
- 2.10 Which ONE of the following is an example of a micro blogging site?
- A *WhatsApp*
 - B *Twitter*
 - C *Google*
 - D *Flickr* (1)

[10]

QUESTION 3: TRUE/FALSE ITEMS

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write 'true' or 'false' next to the question number (3.1 – 3.5) in the ANSWER BOOK. Correct the statement if it is FALSE. Change the underlined word(s) to make the statement TRUE. (You may not simply use the word 'NOT' to change the statement. NO mark will be awarded if only FALSE is written down.)

EXAMPLES:

QUESTION	ANSWER
Google is the world's most popular search engine.	True
Distributed computing refers to the process where money is raised via numerous small donations using the Internet	False – crowd funding

- 3.1 A **template** is a blueprint for a specific type of document, with a suitable layout. (1)
- 3.2 **Absolute cell referencing** is a facility that can be used to automatically fill a series with data in Excel. (1)
- 3.3 A **citation** is a numbered description added to a table, figure or other graphic object. (1)
- 3.4 **DOTX** is the file extension for a Microsoft Word Template. (1)
- 3.5 A **motherboard** is a large circuit board inside the computer containing slots and connections for all the components of a computer. (1)

[5]**TOTAL SECTION A: 25**

SECTION B

QUESTION 4: SYSTEMS TECHNOLOGIES

4.1 The managers at Pick n Pay were given a choice to use one of the following two devices to perform their tasks during their countrywide competition.

DEVICE	SPECIFICATIONS
Laptop	- Intel Core i7 2.4 GHz CPU - 8 GB RAM - 1.5 TB HDD
Tablet	- nVidia Tegra 1.2 GHz CPU - 1 GB RAM - 32 GB SSD

4.1.1 Give TWO reasons why the managers requested to be issued with the laptop rather than the tablet. (2)

4.1.2 One of the local IT technicians also presented the managers with the option of buying a netbook.

Name TWO critical hardware differences between a laptop and a netbook. (2)

4.1.3 Name ONE advantage of having a card reader in the laptop. (1)

4.2 The IT technicians notice that the laptop does not come with an office suite.

4.2.1 What is an office suite? (2)

4.2.2 State TWO advantages of buying an office suite. (2)

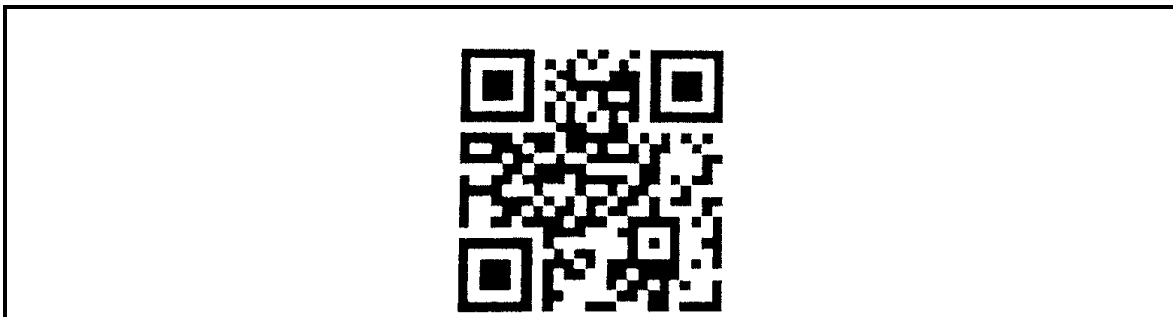
4.3 Name ONE example of an operating system that might be found on a smartphone. (1)

4.4 The smartphone does not have a copy of its drivers on a CD as most other devices. However when they connect it to the notebook, the device drivers are automatically loaded.

4.4.1 What is a device driver? (1)

4.4.2 Where could the device drivers of the smartphone be stored if not on a CD? (1)

- 4.5 The laptop computer is equipped with a fingerprint sensor.
- 4.5.1 State ONE advantage of the fingerprint sensor on the laptop. (1)
- 4.5.2 Give another example of a biometric device/system that can be used to uniquely identify individuals. (1)
- 4.6 Most new software that is written will usually have *bugs* in it. Two common ways of fixing software related bugs are by using *patches* and *service packs*.
- 4.6.1 What is meant by a software bug? (1)
- 4.6.2 Briefly explain the difference between a patch and a service pack, by describing the essential feature of each one. (2)
- 4.7 South Africa has been plagued by power outages and load shedding in recent times.
- Name ONE potential danger that this can pose for a computer system. (1)
- 4.8 Backup utilities enable users to make copies of certain files or the entire hard disk to other storage media.
- 4.8.1 When do you make use of a backup? (1)
- 4.8.2 What storage medium would you suggest to backup large volumes of files for a long term? (1)
- 4.8.3 You can also archive your files. Explain the term archive in this context. (2)
- 4.9 Identify the image below that appears on Pick n Pay's newsletter AND explain how it would be used by referring to a suitable example. (3)



(3)
[25]

QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES

- 5.1 List TWO advantages of connecting computers in a network. (2)
- 5.2 The network at the school is a client-server system.
- 5.2.1 Give TWO examples of servers in a network. (2)
- 5.2.2 A peer-to-peer network does not have a server. Why is this? (1)
- 5.3 Name TWO hardware components that would be needed to implement a network excluding computers. (2)
- 5.4 Name TWO potential disadvantages of a WLAN. (2)
- 5.5 Many people make use of an RSS aggregator.
- Name TWO disadvantages of an RSS aggregator. (2)
- 5.6 Motivate the reasoning behind the need for a *firewall* by referring to its function. (2)
- 5.7 Give TWO possible reasons why a firewall might reject an e-mail attachment. (2)

[15]**QUESTION 6: INFORMATION MANAGEMENT**

Managing information is an important feature in the business world.

- 6.1 A well-thought-out task definition is important when starting a research project.
- 6.1.1 What is a *task definition*? (1)
- 6.1.2 Why is it important to write the task definition in your own words? (1)
- 6.2 Exporting data is an important feature in data processing.
- 6.2.1 Explain what is meant by the term *export* with regard to data by using a suitable example. (2)
- 6.2.2 Explain how a CSV file reaches/accomplishes its goal by referring to the term *delimiter*. (2)
- 6.3 Explain what an appendix is as used in a research project. (1)

- 6.4 Explain each of the following terms:
- 6.4.1 Copyright (1)
 - 6.4.2 Plagiarism (1)
- 6.5 State ONE feature of a spreadsheet that can be used to meaningfully arrange large quantities of data. (1)
- [10]**

QUESTION 7: SOCIAL IMPLICATIONS

- 7.1 In general, the copying of software is illegal.
- Name ONE instance, however, in which you are allowed to copy software. (1)
- 7.2 One of the advantages of having a computer lab at a hostel is that learners can communicate easily with learners in other schools via social networking websites.
- 7.2.1 Name TWO popular social networking websites. (2)
 - 7.2.2 One of the potential disadvantages of social networking websites, is 'cloning'.
- What do you understand by the cloning of a user's profile? (1)
- 7.2.3 Name TWO other disadvantages of social websites. (2)
- 7.3 Explain what a hotspot is and how a tablet can be connected to the hotspot. (2)
- 7.4 Although technology can benefit society in many ways, it can also be harmful to society.
- Name TWO ways (other than criminal activities) in which technology can have a negative effect on **society**. (2)
- [10]**

QUESTION 8: SOLUTION DEVELOPMENT

- 8.1 Ms Olivier keeps a database of learners that use the media centre. She set up the following database table:

Field name	Description
Surname	Surname of the learner
Name	Name of the learner
Grade	Grade of the learner
User number	Unique number given to the learner
Internet usage	Amount of data used by the learner

- 8.1.1 To which field of the database table would you assign a primary key? (1)
- 8.1.2 What data type in the design view of the database would Ms Olivier use to place a combo box in the *Grade* field? (1)
- 8.1.3 Ms Olivier created a query to display the names of all the Grade 10 and Grade 11 learners.
- This query does not return any names when she uses the criteria 10 AND 11 in the *Grade* field.
- What criteria should Ms Olivier rather use for this field? (1)
- 8.1.4 What feature of a database report would Ms Olivier use to obtain the Internet usage for each grade? (1)
- 8.1.5 In which section of the report would Ms Olivier place a function to determine the total Internet usage of all the learners? (1)
- 8.1.6 Ms Olivier wishes to transfer the data from the database to a spreadsheet.
- Other than using 'copy and paste', which feature of the spreadsheet would she use to perform this action? (1)
- 8.2 What feature of a spreadsheet could Ms Olivier use to ensure that other users cannot change functions and formulas in her spreadsheet? (1)
- 8.3 Name ONE way in which Ms Olivier can use the computer to find a solution to a problem she has encountered in a spreadsheet application. (1)
- 8.4 What appropriate measure should Ms Olivier take when she finds that the word processing application is not responding? (2)
- 8.5 What is a *citation* in a document and when should it be used? (2)

- 8.6 Name the word processing feature that must first be used or applied before an automatic table of contents will work. (1)
- 8.7 Briefly explain what each of the following would be used for in a word processing application:
- 8.7.1 Continuous section break (1)
- 8.7.2 Bookmark (1)
- [15]

TOTAL SECTION B: 75

SECTION C: INTEGRATED SCENARIO**QUESTION 9**

You have been given the opportunity to work at a local cellphone shop. The manager of the store knows about your CAT background and has asked you to help with some of the technical questions that might be asked by customers.

9.1 A smartphone with the following specifications is currently on special at the shop:

- Quad Core 1.7 GHz
- 2 GB RAM
- 16 GB internal storage
- MicroSD card slot (upt to 128 GB)
- 5.0"Multi-Touch screen
- Android 5.1
- Bluetooth 4.1, 802 a/b/g/n
- 12 MP camera

Answer the following questions from customers:

- 9.1.1 What size screen does the device have? (1)
- 9.1.2 Explain what a Multi-Touch screen is. (1)
- 9.1.3 Give ONE example of an action that a Multi-Touch screen allows one to perform. (1)
- 9.1.4 The specifications above indicate that the smartphone has 16 GB of internal storage.
- Explain why less than 16 GB will be available, even when customers use the smartphone for the first time. (1)
- 9.1.5 Give TWO reasons why it is a good idea to upgrade to a smartphone with the same type of operating system. (2)
- 9.1.6 Name TWO basic functions of an operating system. (2)
- 9.1.7 Which specification above refers to resolution? (1)

- 9.2 Describe how RFID tags could be used to prevent demo cellphones from being stolen from the shop. (2)
- 9.3 Most people nowadays are making use of mobile technology.
Describe TWO ways to improve your cellphone's battery life. (2)
- 9.4 Give TWO reasons why a customer would use VOIP instead of a normal cellphone call. (2)
- 9.5 Name TWO good practices when using VOIP. (2)
- 9.6 Describe the process that happens from the moment you send an e-mail till the receiver reads the e-mail. (3)
- 9.7 You are an environmentally conscious person and you are aware of 'green computing' issues.
Briefly explain what is meant by the term *green computing*. (1)
- 9.8 Describe TWO ways in which the shop can get rid of old cellphones and cellphone parts responsibly. (2)
- 9.9 You want to computerise all tasks and systems in the cellphone shop.
- 9.9.1 What does the term office automation refer to? (2)
- 9.9.2 Briefly discuss TWO benefits of office automation. (2)

[27]

QUESTION 10

10.1 You want to prevent the loss of data and unauthorised access to data.

Name TWO techniques that he can use to protect the cellphone shops data. (2)

10.2 You have set up a database of your regular customers. An extract from the customer table is shown below:

Account	Name	Address	Cellphone	email
13	Jerry Spoons	132 Main Road, Kinross	854123332	jspoon@mweb.co.za
14	Sibusiso Nkosi	14 Toulouse Drive, Evander	824157598	sbunkosi@telkom.net
12	Joos van der Mer	13 Geelsingel, Secunda	832147581	jvdmerwe@mweb.co.za
16	Belinda Webb	10 Smit Street, Braamfontei	836961789	belinda@worx.co.za
26	Peet Riet	13 Kilroy Lane, Rietspruit	821247895	sommerpeet@lantic.co.za

10.2.1 When the cellphone numbers are entered into the database table, the zero at the beginning simply disappears.

Explain the likely cause of this problem and suggest how it could be overcome. (2)

10.2.2 The entire address of each customer has been stored in one field.

Is this a desirable approach? (1)

Give TWO reasons for your answer. (2)

10.3 You need to present the findings of the research you have been doing. The findings can be presented in three possible ways:

- In a hardcopy format
- By using a presentation program such as PowerPoint
- Via a web page on the internet

Name THREE possible criteria or considerations you would use to decide which of these three modes of communication ought to be used to present these findings of the research. (3)

10.4 You are putting together a small website to advertise the cellphone shop. From your own experience of working with HTML codes/tags, give the reason for each of the following two tips:

10.4.1 Always indent the codes/tags, i.e. do not place all the HTML codes/tags against the left margin. (2)

10.4.2 Do not write all the codes/tags at once, before viewing the page in your web browser for the first time. (1)

- 10.5 ICT has had both positive and negative impacts on the business world. List TWO possible negative effects on the **business world**. (2)
- 10.6 Mention TWO ways in which one can minimise the possibility of being affected by computer related health risks. (2)
- 10.7 An AUP is used to inform users as to what may or may not be done on a network. List THREE possible items that can be included in the AUP for the cellphone shop. (3)
- 10.8 Explain what *malware* is. (1)
- 10.9 Mention TWO examples of malware associated with e-mail. (2)

[23]

TOTAL SECTION C: 50
GRAND TOTAL: 150