



Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

SEPTEMBER 2013

**COMPUTER APPLICATIONS TECHNOLOGY P2
(THEORY)**

MARKS: 150

TIME: 3 hours



This question paper consists of 13 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of SECTION A and SECTION B.
2. Answer ALL the questions.
3. Read ALL the questions carefully.
4. Start EACH question on a NEW page.
5. Number the answers correctly according to the numbering system used in this question paper.
6. 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 P.

COLUMN A		COLUMN B	
1.1	Technology that enables a machine to read characters such as bank numbers on a cheque	A	Blog
1.2	The software that places print jobs in a queue after receiving instructions from the operating systems	B	Encryption
1.3	A technique used to prevent unauthorised access to sensitive information	C	Patch
1.4	Small piece of software designed to fix software errors or update a program/application	D	MICR
1.5	Maximum amount of data that a user can transfer over a specified time period via an internet connection	E	Cap
1.6	An informal website consisting of articles in the form of a journal	F	Defragment
1.7	The rate at which data is transferred from one point to another	G	Style
1.8	The process of arranging the clusters of a file sequentially	H	Bandwidth
1.9	Combination of various types of formatting, such as character and paragraph formatting included in one command	I	SUMIF
1.10	Function used to add together certain numbers in a range	J	RFID
		K	Spooler
		L	Broadband
		M	EULA
		N	Macro
		O	IF

(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 is not a way of contributing to 'green computing'?
- A Replacing hardware every two years
 - B Refilling ink and toner cartridges
 - C Using hardware that is 'Energy Star' compliant
 - D Limiting the amount of printing done in an office
- (1)
- 2.2 Which ONE the following would NOT represent a service typically provided with an e-banking facility?
- A Inter-account transfers
 - B Balance enquiries
 - C Withdrawing cash
 - D Paying of bills
- (1)
- 2.3 An area in a public place such as a restaurant, where you can gain access to the internet, is known as a(n) ...
- A WISP.
 - B ISP.
 - C LAN.
 - D hotspot.
- (1)
- 2.4 Which ONE of the following would you use to transfer files from your cell phone to your computer?
- A HTTPS
 - B WAN
 - C Bluetooth
 - D ADSL
- (1)
- 2.5 The dumping of hardware technology in landfill sites is also known as ...
- A e-learning.
 - B e-computers.
 - C e-scrap.
 - D e-commerce.
- (1)
- 2.6 A term referring to the gap between people who have access to technology and those who do not:
- A Digital device
 - B Illiterate
 - C Digital divide
 - D e-gap
- (1)

- 2.7 Software or a function of a browser that can be used to stop learners accessing unsuitable websites is called:
- A Freeware
 - B A filter
 - C Encryption software
 - D Shareware
- (1)
- 2.8 Which ONE of the following e-mail options allows you to send a copy of the message so that the recipient's name is visible to other recipients of the message?
- A Bcc
 - B Forward
 - C To
 - D Cc
- (1)
- 2.9 Which ONE of the following CANNOT be used as a data source for mail merge in a word processing program?
- A A presentations file
 - B A spreadsheet file
 - C A word processing document
 - D A database file
- (1)
- 2.10 Which ONE of the following spreadsheet functions will be used to count only the numeric entries in a list?
- A COUNTA
 - B COUNT
 - C SUMIF
 - D COUNTIF
- (1)

[10]**TOTAL SECTION A: 20**

SECTION B

Read the scenario below carefully as the questions that follow are based on it.

SCENARIO

The librarian at your school, Mr Books, has decided to start using computers in the school's media centre/library for administration. Unfortunately his computer knowledge is not as high as will be needed. He has approached you as the Grade 12 Computer Applications Technology learners to help him make the correct decisions. You will be acting as the team leader and will be dealing with Mr Books directly.

QUESTION 3

- 3.1 Mr Books will need a computer that he will be using for the administration of the library. He has decided that he will need to buy a laptop and received the following specifications on a quote from the local IT technician:

LAPTOP
Intel i7 3610QM 2.30 GHz
750GB SATA HDD
8GB RAM
8x DVD Super multi writer
17.3" LED
1.3MP Webcam
Bluetooth 2.1
Windows 8 Pro
1x RJ-45 Ethernet
3-In-1 Memory card reader
Integrated Wi-Fi

- 3.1.1 Mr Books wants to create documents such as letters, spreadsheets and slideshows about his library.
What type of software package would he be required to install on the laptop to create the above-mentioned items? (1)
- 3.1.2 Mr Books' laptop can be used for video-conferencing.
Which hardware component from the above advert indicates this? (1)
- 3.1.3 Besides the above hardware component, name TWO more hardware devices he should have to make video conferencing possible. (2)
- 3.1.4 The laptop does not contain a modem as standard. Will Mr Books be able to connect to the internet without a modem? Give reason for your answer. (2)

- 3.1.5 Mr Books would like to know whether he should buy an operating system. You explain that an operating system is already present.
Identify the operating system of the laptop. (1)
- 3.1.6 The advert lists Bluetooth as being a standard connection on the laptop.
List TWO advantages of Bluetooth over infrared data transmission. (2)
- 3.1.7 List TWO ways in which Mr Books could connect his smart phone to the laptop in order to transfer photos he has taken of the new computers. (2)
- 3.1.8 Name the device described by the specification below.
Intel i7 3610QM 2.30 GHz (1)
- 3.1.9 What is the speed of the above device? (Write only the speed) (1)
- 3.2 The advert lists a monitor with a specification of 17.3".
- 3.2.1 The laptop has an LED monitor instead of the normal LCD.
Name TWO advantages of this approach. (2)
- 3.2.2 What does the 17.3" specification with regard to the monitor mean? (2)
- 3.3 Mr Books has received a CD from the provincial department containing a list of books that are to be donated to the library. When opening the document on the CD the operating system shows a dialog box indicating that the file is "read-only".
- 3.3.1 What does "read-only" mean? (1)
- 3.3.2 Why would the file be "read-only"? (1)
- 3.3.3 How can Mr Books remove the "read-only" specification? (1)
- 3.4 You advised the librarian to purchase a barcode reader.
Outline TWO possible benefits to the media centre if this device is purchased. (2)
- 3.5 Mr Books would like to use the webcam to take pictures of the official opening of the new computer facilities at the library. You advise him to use a regular digital camera instead.
- 3.5.1 Name TWO reasons why he should use the digital camera instead of the webcam. (2)
- 3.5.2 Name TWO specifications that he should pay careful attention to when purchasing a new digital camera. (2)
- 3.5.3 Which TYPE of printer (not a brand name or model) would you recommend for high quality printouts of the pictures? (1)

QUESTION 4

- 4.1 Mr Books has decided that he wants to connect the computers in the library to a network.

Name TWO reasons why this approach would be beneficial to the library users and to Mr Books himself. (2)

- 4.2 Mr Books does not understand the difference between a LAN and WAN:

4.2.1 Would the network installed in the library be known as a WAN or a LAN? Motivate the answer by defining both terms. (3)

4.2.2 He has been informed that it would be a good idea to install a server in the network.

Explain to him why this is a good idea by also explaining what the difference is between a server and a normal computer on the network. (2)

- 4.3 Mr Books will need to enforce certain rules upon the users of the network.

4.3.1 One rule will be that users may not watch videos over the internet such as those hosted on YouTube.

Why is this needed? (1)

4.3.2 How could Mr Books overcome the problem in QUESTION 4.3.1 and still allow users to watch certain videos? (1)

- 4.4 Mr Books was amazed to learn that all of the computers and the devices in the network can be connected without any cabling via Wi-Fi.

Discuss ONE advantage and ONE disadvantage of having a wireless network rather than a cabled network. (2)

- 4.5 Mr Books is concerned about learners accessing confidential files.

Name TWO ways in which access to certain files or folders can be prohibited on a network. (2)

- 4.6 Mr Books is trying to printout invitations to the opening of the library. He has sent the document to one of two printers on the network, but nothing has been printed so far.

4.6.1 Name TWO possible reasons why the printer is not reacting. (2)

4.6.2 List TWO possible actions that can be performed on print jobs within a print queue. (2)

4.6.3 What would Mr Books need to do to make sure that future print jobs go directly to one specific printer? (1)

- 4.7 You recommend that Mr Books make use of refilled printer cartridges in the centre.
- 4.7.1 Name TWO benefits of using refilled cartridges. (2)
- 4.7.2 Name TWO potential disadvantages of using refilled cartridges. (2)
- 4.8 Mr Books wants to buy new software for the centre.
- 4.8.1 Name TWO hardware components he should consider before buying the new software. (2)
- 4.8.2 Name ONE instance where Mr Books would better to replace a computer rather than to upgrade it. (1)
- [25]

QUESTION 5

- 5.1 Mr Books should make an informed decision as to the internet connection he will be using for the network. This includes the type of connection and which ISP to use.
- 5.1.1 What is the function of an ISP? (2)
- 5.1.2 List TWO reasons, other than the cost, that would make ADSL a better choice than a dial-up connection. (2)
- 5.1.3 Explain how the cost of an ADSL line is calculated when compared to a dial-up line. (2)
- 5.1.4 Explain what the terms *broadband* and *bandwidth* mean. (4)
- 5.2 Mr Books has been advised to create an intranet within the library.
- 5.2.1 Define the term *intranet*. (2)
- 5.2.2 Name TWO reasons for not installing an intranet within the library. (2)
- 5.3 Mr Books would like to use online banking in order to pay for new books and computing devices.
- 5.3.1 List the TWO benefits of Internet banking. (2)
- 5.3.2 Explain TWO dangers associated with internet banking. (2)
- 5.3.3 List TWO ways in which banks would make sure that customers are safe when performing transactions on their website. (2)
- 5.3.4 Name ONE aspect of banking that Mr Books cannot do over the Internet. (1)

- 5.4 Many learners who are using the media centre/library do not have e-mail addresses and make use of social networks such as Facebook.
- 5.4.1 Name TWO features, other than posting text messages, which a website like Facebook has. (2)
- 5.4.2 Name TWO potential dangers or disadvantages of belonging to and using a website such as Facebook. (2)
- 5.5 The library will be assisting all the learners who are doing their PAT projects, as they need up-to-date information from the internet as well as using the books in the library.
- 5.5.1 Mr Books recommends the use of a search engine to find information on the internet.
- What is a search engine? (2)
- 5.5.2 Name TWO ways in which the search could be narrowed or limited to produce more relevant results. (2)
- 5.5.3 Discuss TWO ways to decide whether the information on the websites that you access, is accurate and reliable, or not. (2)
- [31]**

QUESTION 6

- 6.1 Mr Books wants to take a document from his computer at the library home and open it on his computer there. Unfortunately he does not have an office suite installed on his personal computer yet. He has to choose between a proprietary suite such as Microsoft Office and an open source alternative such as LibreOffice.
- 6.1.1 Explain what an *office suite* is. (2)
- 6.1.2 Compare these TWO types of office suites in terms of cost and support. (4)
- 6.2 What type of application normally found in an office suite would be most appropriate for each of the following situations within the above scenario? (Do NOT mention specific brands such as Microsoft PowerPoint.)
- 6.2.1 To keep records of all books in the library and allow the easy retrieval of specific information. (1)
- 6.2.2 To keep financial records of donations and how the money was spent. (1)

- 6.3 The network will have multiple users accessing the computers as well as connecting to the Internet. This raises concerns with Mr Books with regard to malware.
- 6.3.1 Explain to Mr Books what a keylogger is by also referring to the type of malware it represents. (2)
- 6.3.2 How would he know that an application can be classified as adware? (1)
- 6.3.3 Name TWO possible signs that your computer may be infected with spyware. (2)
- 6.3.4 List TWO ways in which Mr Books can make sure that the network stays free of malware – besides updating all the relevant anti-malware software. (2)
- 6.3.5 Explain to Mr Books why he should make sure to update his anti-virus regularly by referring to how it works and what an update is. (3)
- 6.4 List TWO reasons for using a compression tool such as Winzip to compress a folder containing 50 files. (2)
- 6.5 The librarian accidentally deleted a file from her hard drive that she still needs. Is there any way she can get this file back? Explain your answer. (2)
- 6.6 The library assistants will be typing for extended periods of time entering the details of all the books in the library on the new system.
- 6.6.1 One of the assistants mentioned the fact that his doctor warned him against the onset of RSI.
What is RSI? (2)
- 6.6.2 Discuss TWO ways in which to prevent or minimise the effect of RSI. (2)

QUESTION 7

- 7.1 Mr Books is using a word processor to prepare documents he will be using for the opening ceremony of the new computer facility.

- 7.1.1 He has inserted a picture in the document but is unable to move it to the centre of the page where he needs it.

Explain why this is happening and set out a way in which he could correct the problem. (2)

- 7.1.2 Just below the heading of the document he has inserted a table. Unfortunately the table does not fit in on the page and is going over the margins.

Recommend TWO ways in which he can make the table fit without deleting or resizing the table or its contents solve this problem without deleting any columns or changing the font size. (2)

- 7.1.3 When he runs the Spell Check function he finds that the words programme and colour appear as incorrectly spelt words.

Propose a solution to this problem. (1)

- 7.2 Mr Books has 32 headings and 65 subheadings in the document. He has decided to change the formatting of all the headings but does not have the time to select and change each one separately.

Name the feature he should have used and how this could have helped solve his problem. (2)

- 7.3 The library assistant has set up a summary of all the expenditures to set up the computer facility using a table in word processing document.

List TWO reasons why she should have rather used a spreadsheet. (2)

- 7.4 He set up a database of all the books in the library. The table called *Book_Table* contains the fields below:

Field name	Description
Barcode number	Bar code number to identify each book
ISBN	ISBN number
Author	Author's name
Title	Title of the book
Year	Year published
Fiction	Fiction or non-fiction
No_of_Copies	Number of copies in stock

- 7.4.1 Name the field that is most appropriate to use as a primary key AND state why you have chosen this field. (2)
- 7.4.2 State the most appropriate data type (besides text) for the Fiction field that indicates whether the book is fiction or not. (1)
- 7.4.3 State the most appropriate data type for the ISBN number of the books which contain 13 numbers. (1)
- 7.4.4 Explain the use of an input mask in a database. (1)
- 7.4.5 Describe how you could use a database feature to prevent data capturers from entering details of books published before 2000. (2)
- 7.5 The following formula has been used to calculate the future replacement value of a book.
- $$=20\%*\$A\$2$$
- 7.5.1 What term describes the cell in the formula that contains \$ signs? (1)
- 7.5.2 Why is the type of addressing referred to in QUESTION 7.5.1 needed or used in a spreadsheet? (2)
- 7.5.3 Predict how the formula in this cell will change if it is copied to the cell immediately below. (1)
- 7.6 Explain to Mr Books what the developer tab would normally be used for when creating an interactive form that can be filled in on the computer. (1)

[21]

TOTAL SECTION B: 120
GRAND TOTAL: 150