Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

NOVEMBER 2011

COMPUTER APPLICATIONS TECHNOLOGY P2

MARKS: 150

TIME: 3 hours

This question paper consists of 14 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

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

1.1   The most appropriate spreadsheet chart to show a trend such as petrol price increase over a period of time.

   A   Pie chart
   B   Line chart
   C   Bar chart
   D   Surface chart   (1)

1.2   What happens when a folder is compressed?

   A   There will be less space on the computer.
   B   The folder cannot be copied to another storage device.
   C   The folder will take up less space.
   D   The folder will change to a read-only folder.   (1)

1.3   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)

1.4   What is the most appropriate medium to be used when sending out an urgent three-page agenda for a meeting?

   A   Website
   B   SMS
   C   Letter
   D   Fax   (1)

1.5   Which ONE of the following hardware components is the most likely to affect the speed of a computer?

   A   RAM
   B   Laser Printer
   C   LCD monitor
   D   DVD-ROM   (1)

1.6   Which ONE of the following devices/applications does not fit?

     A   BlackBerry
     B   Outlook Express
     C   Microsoft Outlook
     D   Digital camera   (1)

1.7   Which ONE of the following specifications would you take into account when buying a new monitor with regards to image quality?

     A   Power usage
     B   Resolution
     C   Hard drive capacity
     D   Sound card   (1)

1.8   Which ONE of the following file extensions can be associated with a graphics file?

     A   .MP3
     B   .DOC
     C   .PDF
     D   .BMP   (1)

1.9   Which ONE of the following does NOT logically belong with the others?

     A   Inkjet printer
     B   Data projector
     C   Stylus
     D   Speakers   (1)

1.10   … is an action that you can use on an image or picture to remove unwanted parts.

     A   Crop
     B   Cut
     C   Resize
     D   Undo   (1)

[10]

QUESTION 2

Choose a term/concept from COLUMN B that best matches the description in COLUMN A. Write only the letter of your choice(A – O) next to the question number in your ANSWER BOOK, for example: 2.11 P

	COLUMN A		COLUMN B
2.1	A cellular technology that allows high speed access to the Internet.	A	Drivers
2.2	A spreadsheet function used to make a decision by comparing the values of two different cells.	B	Defragmentation
2.3	A set of questions and answers relating to a particular topic that are asked on a regular basis.	C	UPS
2.4	A company that provides Internet access to the public at a monthly rate.	D	3G
2.5	A flash disk is classified as … memory.	E	BIOS
2.6	Term used to indicate that you may not use intellectual property without consent of the owner.	F	Copyright
2.7	Characters used to search for a file if part of the filename is unknown.	G	CCTV
2.8	A program that is used to start up your computer and basic peripherals before booting up the operating system.	H	IF
2.9	Software used by the operating system to communicate with peripherals such as printers.	I	Green computing
2.10	A device that gives you time to shut down your computer in the event of a power outage.	J	Secondary
		K	RAM
		L	FAQ
		M	Skype
		N	ISP
		O	Wild card

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TOTAL SECTION A: **20**

SECTION B

Read the scenario below carefully and answer the questions that follow.

SCENARIO

The Department of Transport, in partnership with the Department of Education, is currently in the process of donating bicycles to learners without transport. These learners need to travel more than 10km to school every day. This initiative is part of the *Shova Kalula* project. The school has appointed a team of learners to spearhead this initiative in the local community. The team's responsibilities will include:

- Educating learners and the community relating to the project and its goals.
- Receiving and issuing bicycles to qualifying learners.
- Keeping records of all the bicycles that have been issued or returned.
- Maintenance and repairs, using a local bicycle repair shop.
- Reporting back to the Department of Transport on a monthly basis.

Computers will have to be used in many facets of this project. You have been appointed by the team due to your computer knowledge to perform the following tasks:

- Give advice with regards to computer equipment to be acquired.
- Selecting the appropriate software.
- Advising on the installation of a network.
- Providing general support on computer related queries from the team.

QUESTION 3

Study the advertisement below:

Desktop Computer

- Intel Pentium Dual Core 2.5GHz CPU
- 4GB RAM
- 500GB HDD
- Super Multi DVD Writer
- Onboard graphics, sound and NIC
- USB Optical Mouse
- Ergonomically designed QWERTY keyboard
- Webcam
- Windows 7 Home Premium
- AVG Anti-Virus
- Free 5MP Digital Camera

3.1 You advise the school to purchase 5 of these desktop computers to be used by the group for administration.

List TWO advantages of buying a desktop instead of a laptop. (2)

3.2 The advertisement mentions the computer having 'onboard graphics'.

3.2.1 What is meant by the term 'onboard graphics' in this case? (2)

3.2.2 Give ONE disadvantage of onboard graphics. (1)

3.3 The team doesn't understand why you requested 4GB RAM instead of 2GB RAM, as it is more expensive.

Briefly explain to them why you prefer more RAM. (1)

3.4 One of the team members noticed that the computers do not come standard with an office suite. You explain to them that you will be installing an open source office suite later.

3.4.1 Name TWO advantages of using an open source office suite. (2)

3.4.2 Unfortunately there are certain problems with your choice. Name TWO disadvantages of using open source software. (2)

3.5 Would the school need to purchase an operating system for these computers? Motivate your answer. (2)

3.6 One of the members noticed a small camera mounted on top of the screen, which you identify as a webcam.

3.6.1 Briefly explain to them what a webcam is by referring to its function. (2)

3.6.2 Explain to the team the benefit of using a webcam for communication. (1)

3.7 One of the members was very excited when he noted the computer having an optical mouse, as he has never worked with a cordless mouse before.

3.7.1 Explain to him why his thinking is wrong by referring to the terms *optical* and *cordless*. (1)

3.7.2 Name TWO examples of pointing devices that can be used instead of a mouse on a laptop. (2)

3.7.3 The principal has a beautiful desk with a mirror finish as a work surface.

Explain to him why this would be problematic with an optical mouse and outline a possible solution. (2)

3.8   Most of the members can't understand your excitement with regards to the free digital camera, as the school already owns a conventional film camera.

      3.8.1   Name TWO advantages of using a digital camera instead of a conventional film camera.   (2)

      3.8.2   What does the 5MP in the advertisement concerning the camera signify?   (1)

3.9   You have elected to buy computers that have DVD-writers instead of CD-writers.

      3.9.1   The members of the group are worried about this as they would like to use CDs on the computer as well.

                Will this be a problem? Motivate your answer.   (2)

      3.9.2   One of the major reasons for buying a DVD-writer is to use it for backups.

                Name TWO reasons why DVDs are perfect for this role.   (2)

3.10   The advert mentions an ergonomically designed QWERTY keyboard.

      3.10.1   What does the term QWERTY indicate?   (1)

      3.10.2   What advantage does the term QWERTY hold for the user?   (1)

      3.10.3   What does the term 'ergonomically designed' mean?   (1)

      3.10.4   Name ONE possible health risk of not using an ergonomically designed keyboard.   (1)

3.11   One of the personal computers of a member has indicated that it needs to be defragmented.

      3.11.1   Explain what fragmentation means.   (1)

      3.11.2   The principal is now worried about his backup DVDs becoming fragmented.

                Explain to him why this is not possible.   (1)

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QUESTION 4

4.1   You need to find a list of modern features on bicycles as well as instruction manuals on how to mend these new bicycles.

You have access to the following resources:
- The library
- Microsoft Encarta
- The Internet

Which ONE of the above resources would be the best to find the specific information you need? Give TWO reasons for your choice.   (3)

4.2   The director of Transport is concerned about the amount of accidents involving students on bicycles in the community. He asked the team to create a podcast to encourage the community to be vigilant regarding children on bicycles on the roads. He would also like to use social networks to promote safe riding amongst students.

4.2.1   What is a Podcast?   (2)

4.2.2   Name TWO advantages of Podcasting.   (2)

4.2.3   List TWO examples of popular online social networking sites.   (2)

4.3   The bicycles need to be secured when the learners get to their schools. You decided to search the Internet for information on how to do this.

4.3.1   What is a search engine?   (2)

4.3.2   Name TWO ways in which the search could be narrowed to produce more relevant results by using different search criteria.   (2)

4.4   Two of the team members need to upgrade their cellphone contracts and have been offered smartphones as part of the upgrade.

4.4.1   What is a smartphone?   (2)

4.4.2   One of the main advantages of smartphones is the use of scaled down software applications.

List TWO more advantages of smartphones over normal cellphones.   (2)

4.4.3   Name TWO features that distinguish scaled down software used on smartphones, from normal software applications used on computers.   (2)

4.4.4   The team would like to use their smartphones as PIM devices. What does the abbreviation PIM mean? (Do NOT just expand the abbreviation!)   (2)

4.5 The telephone lines in the area where the school is situated are very notorious for breaking down. This results in the schools dialup Internet connection not working very well.

Which type of Internet connection would you recommend? Motivate your answer. (2)

4.6 The manager at the bicycle workshop you use for repairs would like to do his banking online.

    4.6.1 List TWO advantages of Internet banking. (2)

    4.6.2 Give ONE disadvantage of Internet banking. (1)

4.7 The principal has recently started buying goods over the Internet.

Name TWO ways in which he can make sure his payment is secure by looking at the screen during the payment process. (2)

4.8 During one of the presentations of bicycles at your school, a member of your group took photographs using his cellphone.

    4.8.1 You explain to him that he can transfer the photos to the computer using a cable or Bluetooth.

        Which port would the cable usually be plugged in to? (1)

    4.8.2 Name TWO advantages of using Bluetooth instead of infrared for connecting devices such as cellphones. (2)

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QUESTION 5

5.1   The school has decided to install a network to connect the computers. This should facilitate the team's daily task.

      5.1.1   List THREE advantages of installing a network instead of using standalone computers.   (3)

      5.1.2   Give ONE advantage and ONE disadvantage of installing a wireless network.   (2)

      5.1.3   What abbreviation would best describe a network contained within the school?   (1)

      5.1.4   Name TWO ways in which a server would differ from a normal computer in a networked environment.   (2)

      5.1.5   List TWO other types of server that one might find on a network other than a file server.   (2)

5.2   Except for the computers, name TWO additional hardware components that would be needed to implement the network.   (2)

5.3   After installing the network, the team is confronted with the following message on the computer screen: **'enter password'**

      5.3.1   Explain briefly what a password is by referring to the term username, and the function of a password.   (2)

      5.3.2   What is the purpose of using a password?   (1)

      5.3.3   State TWO guidelines you should follow to create a secure password.   (2)

5.4   The group would need to have an acceptable user policy in place so nobody abuses the computer facilities.

      Name TWO examples of restrictions that can be listed in the policy with regards to the use of the network.   (2)

5.5   Arriving at school one morning, the group working on the computers are all worried. One of the computers is displaying a strange blue screen with rows of numbers on it. They suspect the computer has been infected with a virus.

      5.5.1   Define the term virus.   (3)

      5.5.2   Do you think it is a virus? Motivate your answer.   (2)

      5.5.3   Name TWO precautions that the group should take to prevent any possible virus infections on the network.   (2)

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QUESTION 6

The school would like to invest in software applications that you can use to the benefit of the team.

6.1   The following software packages are possible options that they can get:

Microsoft Office 2010, Windows 7 Business, Ubuntu, Encarta 2007, Encyclopaedia Britannica, OpenOffice

6.1.1   List TWO operating systems from the list above.   (2)

6.1.2   Give ONE example of open source software from the list.   (1)

6.2   One of the members mentions that he has heard that even though you pay for the software, you do not own the application.

Explain why this is true.   (2)

6.3   To save on software costs, one of the members advises the team to use shareware and freeware.

6.3.1   What is the major difference between freeware and shareware?   (2)

6.3.2   After using one of the shareware programs, you decide that it is not as user-friendly as the original program you were using. You proceed to delete the program from the desktop, by pressing the delete key.

Explain why this is not the correct way of removing a program, and outline the correct way of doing this.   (2)

6.4   One of team members has offered to make copies of the management software that he has bought for himself. This is however illegal. What is this type of computer crime called?   (1)

6.5   You advise the team to send their reports to the department in PDF format.

Name TWO reasons why one would make use of the PDF format.   (2)

6.6   One of the team members has heard the management discuss making backups of important information.

In each of the following cases, rewrite the FALSE statement in order for the statement regarding backups to be TRUE.

6.6.1   Backups should be made on the same hard drive the original data is being kept on.   (1)

6.6.2   CDs are better for backups as they can contain more data than DVDs.   (1)

6.7   While using a new application, the principal used a manual to help him understand how the application works. However the manual refers to terms that he has never heard of.

Explain to him briefly what each of the following terms mean:

6.7.1   Context sensitive menu   (1)

6.7.2   On-line help within a program   (1)
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QUESTION 7

7.1   A database table was set up to store records of bicycles issued and returned. A screenshot of this table appears below:

Bicycle_No	Name	Surname	Class	Address	Contact_No	Return
1760	Thandile	Ndyoko	9A	32 Smith St, East london, 5200	867498765	☐
670	Yonela	Maakie	12A	22 Old Main Rd, Hillcrest, 3610	734568797	☑
186	Jane	Smith	7B	2b Mont Blanc,King William's Town, 5600	867543540	☐
987	Vijay	Naidoo	11C	P O Box 89, Port, 4450	877659876	☐

7.1.1   Identify a possible problem with the way that the addresses have been entered into the database. Briefly outline a solution to this problem.   (2)

7.1.2   Every time a telephone or cellphone number is entered, the leading zero disappears.

Explain why this happens and outline a solution to this problem.   (2)

7.1.3   The field 'Bicycle_No' is used to assign a unique identifying number to each bicycle.

List TWO ways in which you can ensure that the user enters a unique number for the bicycle number when capturing a new record in this table.   (2)

7.1.4   Give ONE reason why it would be preferable to use a form instead of allowing the user to enter data directly into the table.   (1)

7.2   Which data type would you use to save the following in a database table:

7.2.1   ID number   (1)

7.2.2   Surname   (1)

7.3   What feature in a modern database program would you use to present the data in a neatly structured, easily printable format?   (1)

7.4   List TWO reasons why databases are superior to spreadsheets or word
        processors when handling large amounts of data.   (2)

7.5   One of your team members has generated a fax template to be used for all
        official faxes.

        7.5.1   Briefly discuss the purpose of a word processing template.   (2)

        7.5.2   You recommend they save the template as read-only document.

                  Name TWO reasons for this advice.   (2)

        7.5.3   Briefly mention what the abbreviation cc indicates on a fax/e-mail. (1)

7.6   The team will be receiving a percentage of the income generated by the
        bicycle repair shop as a donation towards their project. You recommend that
        they use a spreadsheet to keep a record of these donations.

        The spreadsheet below is used to record the bicycle number and the amount
        paid to fix it. Help them complete the spreadsheet by answering the following
        questions:

	A	B	C	D	E	F	G	H
1	Team share from the workshop							
2								
3	Bicycle no.(grade 10)	Amount Paid		Bicycle no.(grade 11)	Amount Paid		Bicycle no.(grade 12)	Amount Paid
4								
5	3427	50		7689	70		9878	67
6	7654	30		7657	23		7657	45
7	7659	20		7865	43		7877	65
8	9876	40		5643	56		3421	70
9	5643	25		2324	45			
10				6756	10			
11								
12	Total Paid	165			237			247
13	Total Team share							
14								
15								
16	Share Percentage	30%						

        7.6.1   The workshop manager will donate 30% of the income to the team.
                  Write down the formula you would use in cell B13 to work out 30%
                  of the total money to be collected. A cell reference to the value in
                  B16 must be used.   (3)

        7.6.2   Why would one use absolute cell referencing in a formula?   (1)

        7.6.3   After changing the spreadsheet, THREE error messages have
                  appeared.

                  Briefly explain the possible cause of each of the following error
                  messages:

                  (a)   ######
                  (b)   #VALUE!
                  (c)   #NAME?   (3)
                                                                                     [24]

                                                   TOTAL SECTION B: 130

                                                        GRAND TOTAL: 150