Province of the

EASTERN CAPE
EDUCATION

DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)

HOME SCHOOLING ASSESSMENT 14

SUBJECT	COMPUTER APPLICATIONS TECHNOLOGY	GRADE	12	DATE	26/6/20
TOPIC	Assessment 14: Integrated Scenario	TERM 2 REVISION		TERM 4 CONTENT	✓
TIME ALLOCATION	60 minutes (50 marks)	**TIPS TO KEEP HEALTHY**			
INSTRUCTIONS	1. You will need a book to write your answers in and something to write with. 2. Answer the following questions in your workbook in full sentences where applicable. 3. Do not refer back to your textbook while answering these questions.	1. **WASH YOUR HANDS** thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%. 2. **PRACTICE SOCIAL DISTANCING** – keep a distance of 1m away from other people. 3. **PRACTISE GOOD RESPIRATORY HYGIENE**: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use. 4. **TRY NOT TO TOUCH YOUR FACE.** The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick. 5. **STAY AT HOME.**			

SCENARIO

Your school recently started a photography club. As the technical assistant you will be helping club members with any computer-related problems. Members are encouraged to bring along any device capable of taking photographs, such as digital cameras, smartphones and tablets.

1.1   Name any TWO camera specifications that will have an impact on the quality of a photograph.   (2)

1.2   The software on the digital camera has a bug.

How would you fix a software bug without replacing the device or taking it back to the shop?   (1)

1.3   Study the specifications below and answer the questions that follow.

- 20 MP
- 4" LED touch screen
- 26x optical zoom
- Micro HDMI and USB port
- 4 GB SD card included

(a)   The specifications indicate an HDMI port.

Name ONE output device that would be typically connected to the HDMI port of the camera.   (1)

(b)   What is the size of the camera's display (screen)?   (1)

2.1   When connecting the camera to a USB port on the computer, you notice that a device driver is being automatically installed.

What is the function of a device driver?   (1)

2.2   The device driver was installed without inserting a storage medium such as a CD.

From which location could the device driver have been installed?   (1)

2.3   Name TWO other ways, besides using a USB cable, in which photographs can be transferred from a digital camera to a computer.   (2)

3   The secretary has been trying to send a picture as an e-mail attachment to the local newspaper. The e-mail was rejected as the attachment exceeded the maximum size limit of 15 MB.

        Name TWO possible ways in which to reduce the size of the picture.   (2)

4   One of the members received a laptop with a built-in webcam.

        Name TWO functions of a webcam if it is used with the Internet.   (2)

5   A major concern for the members of the photography club is losing the photographs they have downloaded onto their computers.

        5.1   Name TWO practical guidelines or strategies they can include in their backup policy.   (2)

        5.2   The school principal stated that he uses cloud storage to store the photographs he takes with his smartphone.

                (a)   State TWO possible disadvantages of using cloud storage for this purpose.   (2)

                (b)   The school principal made sure that the synchronisation ('synching') option on his smartphone has been enabled.

                        What advantage does 'synchronisation' ('synching') offer in this context?   (1)

6 GPS TECHNOLOGY:

        6.1   How does GPS technology work?   (2)

        6.2   Discuss ONE reason for adding GPS information to a photograph.   (1)

7   State TWO advantages of using touch screens on mobile devices such as a digital camera or smartphone.   (2)

8   The club needs broadband Internet access.

8.1   Explain what the term *broadband* means.   (1)

8.2   Name THREE technical criteria or issues, besides the cost, that
        should be considered when choosing the type of broadband
        Internet connection.   (3)

8.3   Access to the Internet means that the club members can use VoIP
        technology such as Skype.

        What is the main advantage of using VoIP to make calls instead of
        normal telephone calls?   (1)

9.1   State TWO advantages of installing a wireless LAN (WLAN)
        instead of a cabled LAN.   (2)

9.2   What would the function of a NIC (network interface card) be on a
        network?   (1)

10.1   State TWO advantages of posting the photographs on a social
        networking website.   (2)

10.2   State TWO ethical guidelines for the club members to consider
        when posting pictures on the Internet.   (2)

11   The photography club wishes to buy a new computer that will be used for
        photo editing.

        Consider the specifications of a possible new computer as shown below.

        ┌───┐
        │ • Core i5 2.4 GHz   │
        │ • 4 GB RAM   │
        │ • 1 TB HDD   │
        │ • 2 GB dedicated graphics card   │
        │ • Bluetooth keyboard and mouse   │
        │ • Windows 8 Pro   │
        └───┘

11.1 Which essential output device does NOT appear in the specifications above? (1)

11.2 State TWO advantages of installing or adding a memory card reader to the computer. (2)

11.3 The specifications include a Bluetooth keyboard and mouse.

State TWO potential disadvantages of using Bluetooth devices. (2)

11.4 4 GB RAM is specified.

What is the main function of RAM in a computer? (1)

11.5 Why would increasing the amount of RAM increase the performance of a computer? (1)

12 The club members need software to edit their photographs. They want to use free and open-source software (FOSS).

What is the main advantage of using FOSS in this situation, besides the fact that it is free? (1)

13 State TWO ways in which the photography club can practise green computing in terms of EACH of the following issues:

13.1 Paper usage (2)

13.2 Electricity consumption (2)

14 The club will use a database to keep track of member details.

Name THREE database field properties that can be used to ensure that valid and accurate data is entered into the database. (3)

TOTAL: 50