**GOVERNMENT OF SAMOA**
**MINISTRY OF EDUCATION, SPORTS AND CULTURE**

# Samoa Secondary Leaving Certificate

# COMPUTER STUDIES

# 2021

## QUESTION and ANSWER BOOKLET

**Time allowed: 3 Hours & 10 minutes**

**INSTRUCTIONS**

1. You have 10 minutes to read **before** you start the exam.

2. Write your **Student Education Number (SEN)** in the space provided on the top right hand corner of this page.

3. **Answer ALL QUESTIONS.** Write your answers in the spaces provided in this booklet.

4. If you need more space, ask the Supervisor for extra paper. Write your SEN on all extra sheets used and clearly number the questions. Attach the extra sheets at the appropriate places in this booklet.

| STRANDS | | | Page | Time (min) | Weighting |
|---|---|---|---|---|---|
| **SECTION 1** | MULTIPLE CHOICE | | 2 | 10 | 14 |
| **SECTION 2** | SHORT ANSWERS | | | | |
| | STRAND 1 | PERSONAL COMPUTER SYSTEMS AND MANAGEMENT | 7 | 55 | 26 |
| | STRAND 2 | FUNDAMENTALS OF COMPUTER PROGRAMMING | 12 | 35 | 8 |
| | STRAND 3 | USING PERSONAL COMPUTER APPLICATIONS | 14 | 80 | 52 |
| | **TOTAL** | | | **180** | **100** |

Check that this booklet contains pages 2-24 in the correct order.
**HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

**Choose the BEST answer and write the correct letter in the box provided.**

1.  Tusi created her file on the computer and saved it under the filename *lighting.docx*.
    Which program did Tusi use to create her file?

    A.    MS Excel.

    B.    MS Word.

    C.    MS Access.

    D.    MS PowerPoint.

    E.    Linux 123.

    SL 1

2.  An example of an Application Software is:

    A.    Windows 10.

    B.    Keyboard.

    C.    Laptop.

    D.    MS Excel.

    E.    Unix.

    SL 1

3.  All of the following are examples of basic elements of the Graphical User Interface
    (GUI) except one. Which one is this element? Select from the choices provided.

    A.    Command buttons.

    B.    Checkboxes.

    C.    Hard drive.

    D.    Menu bars.

    E.    Toolbars.

    SL 1

4.   One of the following is NOT a component found inside the desktop computer box.
     Select from the choices provided.

     A.   Power supply.

     B.   Hard drive.

     C.   Cooling fan.

     D.   Motherboard.

     E.   Monitor.

| | SL 1 |
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| | |
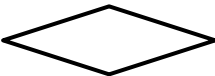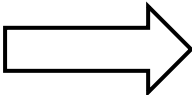
5.   April wanted to create a variable to store people's names in her JAVA program code.
     What will be the appropriate data type to assign to this variable?

     A.   String

     B.   Double

     C.   Char

     D.   Int

     E.   Short text

| | SL 1 |
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6.   Identify the symbol to indicate input/output in a logical flowchart.

     A.   

     B.   

     C.   

     D.   

     E.   

| | SL 1 |
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7.      What are the two types of *page orientation* you can apply when printing documents on the computer?

        A.      Copy and Paste.

        B.      Landscape and Portrait.

        C.      Bold and Italic.

        D.      Find and Select.

        E.      Left and Right alignment.

| | SL 1 |
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**Figure 1**



8.      Name the bullet setting alignment that is set on the ruler in Figure 1.

        A.      Right

        B.      Left

        C.      Justified

        D.      Decimal

        E.      Centre

| | SL 1 |
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9.      What is one type of cell which can be used to create a spreadsheet in MS Excel?

        A.      Formula

        B.      Cell reference

        C.      Active cell

        D.      Cellular

        E.      Auto fill

| | SL 1 |
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10. The two types of *sorting* orders normally used to organize data are:

    A.    find and replace.

    B.    up and down.

    C.    inside and outside.

    D.    ascending and descending.

    E.    right and left.

| | SL 1 |
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11. MS Excel offers several types of graphs that one can use to present data graphically. Only one is listed in the following choices. Select that correct choice.

    A.    Bar graph.

    B.    Light graph.

    C.    Round graph.

    D.    Picture graph.

    E.    Orange graph.

| | SL 1 |
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12. Which of the following is a database file?

    A.    SSLC.access

    B.    SSLC.dbms

    C.    SSLC.accmdb

    D.    SSLC.dbs

    E.    SSLC.dbf

| | SL 1 |
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13. Sara wanted to create a database field called 'Birthdate' to store her friend's birthdays on her database. What will be an appropriate data type for this field?

    A.    Birthday.

    B.    Dateofbirth.

    C.    Date/Time.

    D.    Date.

    E.    Time.

| | SL 1 |
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**Figure 2**

| | Name | Color | Quantity |
|---|---|---|---|
| 1 | Road Frames | Black | NULL |
| 2 | Road Frames | Red | NULL |
| 3 | Helmets | Red | 288 |
| 4 | Helmets | Black | 324 |
| 5 | Socks | White | 180 |
| 6 | Socks | White | 216 |
| 7 | Helmets | Blue | 216 |
| 8 | Caps | Multi | 288 |
| 9 | Jerseys | Multi | 144 |
| 10 | Jerseys | Multi | 180 |
| 11 | Jerseys | Multi | 216 |
| 12 | Jerseys | Multi | 252 |

14.    If the table in Figure 2 was sorted in Ascending order of names then one of the following will be true of the result.

   A.    Caps will be the last name.

   B.    Helmets with colour Blue will be second record.

   C.    Road Frames with colour Black will be last.

   D.    Socks will be the third record.

   E.    Caps will be the first name.

SL 1

**SECTION 2:     SHORT ANSWERS**

| STRAND 1 | PERSONAL COMPUTER SYSTEMS AND MANAGEMENT | WEIGHTING 26 |
|---|---|---|

**Use Figure 3 to answer Question 15.**

**Figure 3**



15.     Define the function of the computer component in Figure 3.

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| SL 2 |
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16.     A printer is a peripheral device which can be attached to the computer system.
        Describe why a printer is needed when creating documents from the computer.

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| SL 2 |
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17. Evaluate why it is required to protect computers from computer viruses using anti-virus software.

| | SL 4 |
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18. June created an essay on the computer and she wanted to keep a copy of her file by saving it using the *SAVE* option. Explain the idea of using this SAVE option to create June's file.

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19.	Discuss the significance of computer programmers in the ICT field.

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20.	Describe the file naming principle of the filename *prizes.xls*

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| | SL 2 |

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21.	Why is it important to regularly save and backup your files on the computer? Explain and provide an example.

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| | SL 3 |

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22.  Computer ethics is a group of standards or rules that control the fair and positive uses of computers. Discuss 4 examples of ethical issues in Computing.

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| | SL 4 |
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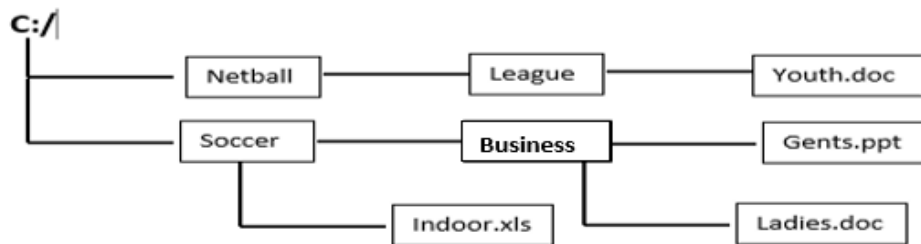**Use Figure 4 to answer Question 23.**

**Figure 4**



23.    Write the pathways of the following file and folder.

(i)     Ladies.doc    _____

(ii)    Business      _____

| SL 2 |
|------|
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24. Ioana wanted to develop a computer code to calculate percentage of votes for each election booth in her constituency based on the following results. The column headings can be variable names in the code.

| Election Booth# | Total Roll Number | Total Number of Casted Votes | Informal Votes | Percentage of Formal Votes |
|---|---|---|---|---|
| Booth #1 | 280 | 280 | 0 | 100% |
| Booth #2 | 500 | 500 | 0 | 100% |
| Booth #3 | 459 | 459 | 10 | 100% |
| Booth #4 | 800 | 800 | 2 | 100% |

(i) What will be an appropriate data type to be assigned to **Election Booth#**?

| SL 2 |
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(ii) What is the suitable data type for **Percentage of Formal Votes**?

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25. Draw the flowchart to guide Ioana in her coding of the problem in Question 24 above by filling in the correct processes in the chart provided.

| SL 3 |
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26. Write a suitable algorithm to produce the required solution to Ioana's problem in Question 24.
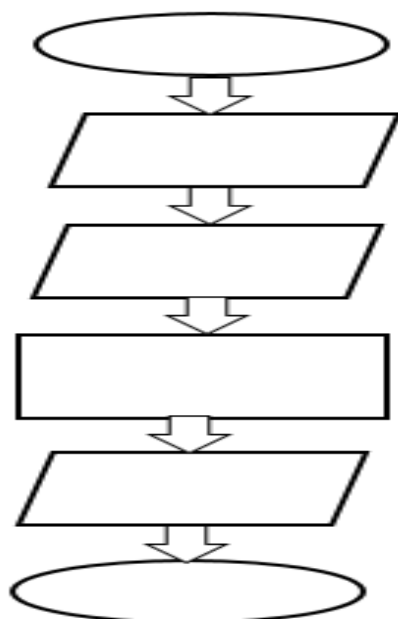
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| **SL 3** | |
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27.    List any 2 principles of word processing.
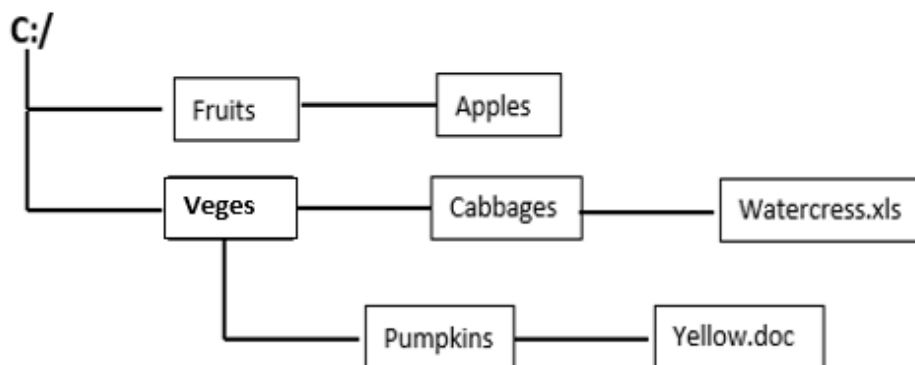
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SL 2

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**Use Figure 5 to answer Question 28.**

**<u>Figure 5</u>**



28.    Write the result of the following search **\*p\*s** if it is run on the hierarchy in Figure 5.

_____    SL 2

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29.    Discuss the following statement:

**'People in the workplace are often empowered by word processing skills'. How?**

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_____    SL 4

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**Use sentence (Figure 6) to answer Question 30.**

**Figure 6**

The mein problems with projects sponsored by aid is that the output are not clear.

30.     The spell checker tool option was applied to the sentence and the result is shown in
        Figure 6. Explain the type of spelling errors underlined red and blue.

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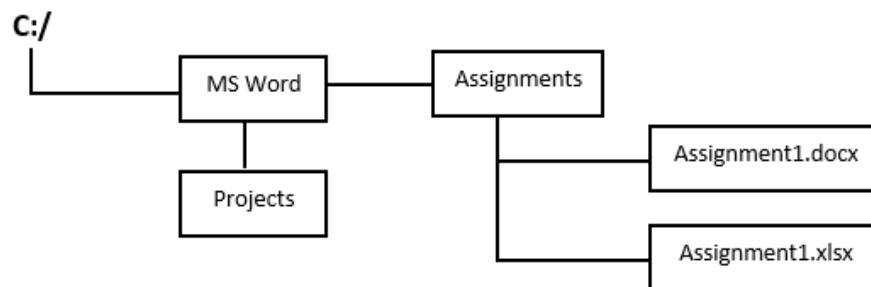
**Use Figure 7 to answer Question 31.**

**Figure 7**



31. Hesed wanted to modify his hierarchy in Figure 7 because his Excel file is a Project and should be stored in the Projects folder. Explain how Hesed can achieve this task.

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| SL 4 |
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**Use Figure 8 to answer Question 32.**

**Figure 8**

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Benji's Weekly Expenses Budget | | | | | | | | SALE | 50% | |
| 2 | | School Lunch | Bus Fare | After School Sports | Rent | Church Offering | Shopping | Shopping 50% Discount | | | |
| 3 | Monday | $10.00 | $ 5.00 | $ 10.00 | | | $ 200.00 | | | | |
| 4 | Tuesday | $10.00 | $ 5.00 | | | | | | | | |
| 5 | Wednesday | $10.00 | $ 5.00 | $ 10.00 | | | | | | | |
| 6 | Thursday | $10.00 | $ 5.00 | | | | | | | | |
| 7 | Friday | $10.00 | $ 5.00 | $ 10.00 | $100.00 | | | | | | |
| 8 | Saturday | | $ 10.00 | | | | | | | | |
| 9 | Sunday | | $ 10.00 | | | $ 50.00 | | | | | |
| 10 | TOTAL EXPENSES | $50.00 | $ 45.00 | $ 30.00 | $100.00 | $ 50.00 | $ 200.00 | | | | |
| 11 | | | | | | | | | | | |

32. Benji sometimes finds that sales are on the weekdays, so he goes whenever there is a sale either from Monday to Friday. There is a sale on Monday so Benji is happy to know that his usual shopping expense of $200 on Monday will be reduced by 50%. Write the formula in H3 to calculate how much Benji will be paying using the 50% sale.

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| SL 3 |
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**Use Figure 9 to answer Questions 33 to 36.**

**Figure 9**

|  | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | | | |
| 31 | | | | | | Year 13 Manono Canteen Fundraising | | | | |
| 32 | | | | | Quantity | Selling Cost | Quantity Sold | Income Earned | Profit or Loss? | |
| 33 | | | | Cupcakes | 100 | $ 2.00 | 100 | $ 200.00 | PROFIT | |
| 34 | | | | Meat Pies | 50 | $ 5.00 | 30 | $ 150.00 | | |
| 35 | | | | Hot Dogs | 60 | $ 3.00 | 40 | $ 120.00 | | |
| 36 | | | | Tuna Sandwiches | 50 | $ 2.00 | 50 | $ 100.00 | | |
| 37 | | | | Egg Sandwiches | 50 | $ 3.00 | 35 | $ 105.00 | | |
| 38 | | | | TOTAL | | | | | | |
| 39 | | | | | | | | | | |

33. List the **cell types** of the following cells:

    1.    H33    _____

    2.    G35    _____

    | SL 2 |
    |---|
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34. Study the nature of the data in cell I33 and list the **spreadsheet function** used to calculate the value in this cell.

    _____
    _____
    _____

    | SL 2 |
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35. If the **Auto – Fill** function was used to drag the formula in I33 to I37, what will be the result of the formula in cell I35?

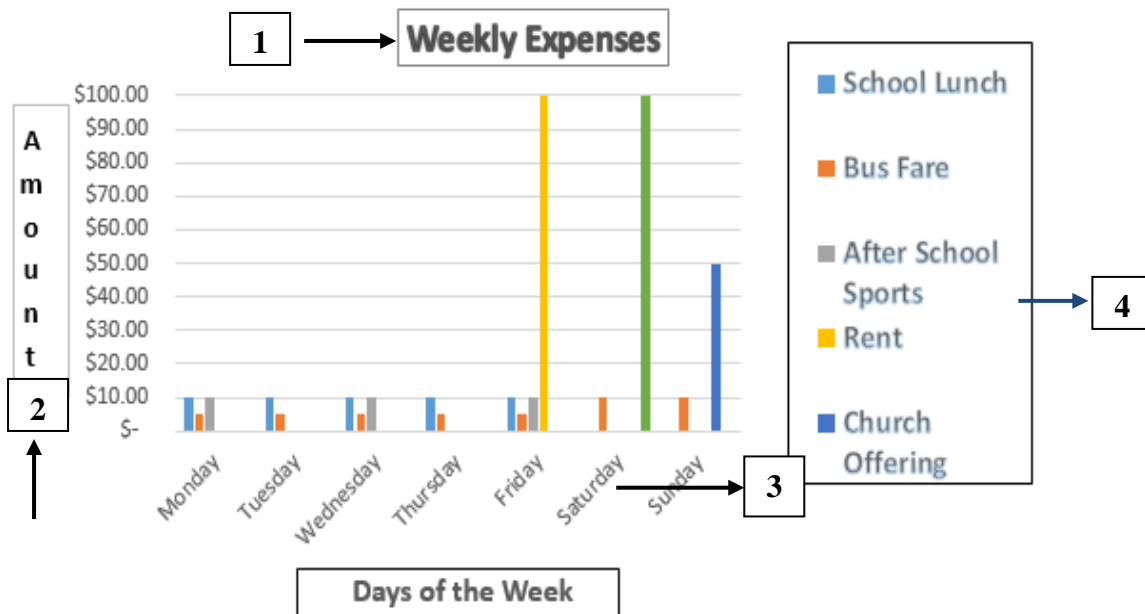    _____
    _____
    _____

    | SL 2 |
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36. List the result of the first row if the spreadsheet is sorted to display the lowest *'Income Earned.'*

| Year 13 Manono Canteen Fundraising | | | | | |
|---|---|---|---|---|---|
| | Quantity | Selling Cost | Quantity Sold | Income Earned | Profit or Loss? |
| | | | | | |

SL 3

Use Figure 10 to answer Question 37.

**Figure 10**



37. Fill in the appropriate labels from Figure 10.

1. _____

   SL 4

2. _____

3. _____

4. _____

38.   When someone acquires spreadsheet skills it can be an advantage. Discuss.

| | SL 4 |
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39.   Justify the advantages of using a database.

| | SL 3 |
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**Use Figure 11 to answer Question 40.**

**Figure 11**

| Fieldname | Description |
|---|---|
| address_id | This field will store the unique ID of an address |
| street | |
| state | |

Table &ndash;

Customers

| address_id | street | city | state | zip_code |
|---|---|---|---|---|
| 1 | 807 Grandrose Ave. | Yonkers | NY | 10701 |
| 2 | 26 Market Drive | Forest Hills | NY | 11375 |
| 3 | 60 Myers Dr. | Amityville | NY | 11701 |
| 4 | 9782 Indian Spring Lane | Harlingen | TX | 78552 |
| 5 | 167 James St. | Los Banos | CA | 93635 |
| 6 | 755 East Henry Lane | Central Islip | NY | 11722 |
| 7 | 8165 Baker Ave. | Franklin Square | NY | 11010 |
| 8 | 669 S. Gartner Street | San Pablo | CA | 94806 |
| 9 | 683 West Kirkland Dr. | East Northport | NY | 11731 |
| 10 | 684 Westport Drive | Ballston Spa | NY | 12020 |
| 11 | 720 Thompson Lane | Rego Park | NY | 11374 |
| 12 | 973 Yukon Avenue | Encino | CA | 91316 |
| 13 | 55 Cambridge Street | Plainview | NY | 11803 |

40.  Write an SQL query to display ALL Customers from *'NY'* sorted by *DESCENDING* order of city.

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| SL 4 |
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41. Complete the following table to show the appropriate descriptions of the fields listed from Figure 11. The first row is already filled in.

| Fieldname | Description |
|---|---|
| address_id | This field will store the unique ID of an address |
| street | |
| state | |

SL 2

42. Assign the appropriate data types of the following fields from Figure 11 listed in the table below.

| Fieldname | Datatype |
|---|---|
| address_id | |
| city | |

SL 2

43. Write the output of the following SQL query on the table in Figure 11 using the table provided.

SELECT *

FROM Customers

WHERE state = 'CA';

SL 2

| address_id | street | city | state | zip_code |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

44. Mesepa wanted to create the database table in Figure 11 using **Design view**. Complete the table below with the necessary data types and field properties of the fields listed.

**Figure 12**

| Fieldname | Data Type | Field Properties | | |
|---|---|---|---|---|
| street | | | SL 4 | |
| state | | | | |
| zip_code | | | | |

| STUDENT EDUCATION NUMBER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

# COMPUTER STUDIES

## 2021

### *(For Scorers only)*

| STRANDS | | Weighting | Scores | Check Scorer | AED Check |
|---|---|---|---|---|---|
| SECTION 1 | Multiple Choice | 14 | | | |
| STRAND 1 | Personal Computer Systems And Management | 26 | | | |
| STRAND 2 | Fundamentals Of Computer Programming | 8 | | | |
| STRAND 3 | Using Personal Computer Applications | 52 | | | |
| **TOTAL** | | 100 | | | |