

# **SANGAM SKM COLLEGE – NADI**

## **YEAR 12 COMPUTER STUDIES WORKSHEET**

### **WEEK 2**

1. State **two** social networking risks.
  - **Stealing of personal identities and commit crimes**
  - **Social differences – family conflict, conflict at work**
  - **Cyberbullying**
  - **Unwanted activities (pornography)**
2. State **two** ways someone's Web activity is monitored.
  - **History file,**
  - **Cookies, and**
  - **Spyware**
3. Explain **one** way in which computers can benefit an organisation.
  - **Paper work - The extensive use of computer systems in most public and private companies or even schools, and universities, eventually reduce the amount of paper work.**
  - **Education – medium to facilitate learning process for example presentation**
  - **Data storage- data is well organized and kept in computers which can be easily accessed and shared across the organization provided computers are networked.**
4. Explain how a **Robot Network** or **Botnet** is formed.

**A collection of zombie's computers is known as a botnet, or robot network. Botnets harness the combine power of many zombies for malicious activities like password cracking or sending junk e-mail. Because they are formed by many computers distributed across the internet, botnets are hard to shut down even after they are detected.**
5. Discuss how **Digital Millennium Copyright Act** can reduce software piracy.

**The Digital Millennium Copyright Act establishes the right of a program owner to make a backup copy of any program. The act also establishes that none of these copies may be legally resold or given away.. It is also illegal to download copyright-protected music and videos from the internet. To prevent copyright violation, corporations often use digital rights management (DRM). DRM encompasses various technologies that control access to electronic media and files.**
6. Explain **one** reason why software piracy is a continuing trend in most countries.
  - **Financial gain by selling pirated copies- people find it more financial gain to copy and sell than to pay for original copy which is expensive and less profit. Example movies.**
  - **Easier and faster excess – things are available on internet which makes it easy to copy without much research and readings.**
  - **Countries laws are not addressing this issue or law is not followed.**
7. Define the term **information society**.

**An information society is one which most of the population is involved in gathering, processing and communicating information rather that physically producing goods.**
8. Explain how computers are used in Law Enforcement agencies.
  - **Modelling of DNA to trace criminal activities**

- **Determining of the desired outcome of crimes committed**
  - **Communication**
  - **Record keeping**
9. State the type of computer crime **carder's** commit.
- **Stealing, trading and using stolen credit cards over the internet**
  - **Stealing of credit/debit/visa/master card information**
10. Describe **one** way in which computer virus spreads.
- **It spread through internet via operating systems, where most of the viruses attached to different files, programs and website**
  - **Transferring of files from and to your computer to an infected flash drive**
  - **Downloading applications from unknown source.**
  - **Downloading videos, music and games from an unknown source.**
11. Explain why employees make up the largest category of computer criminals in any organisation.
- ***Employees got the easiest access to computers.***
  - ***Monitoring of employees are not properly done.***
  - ***Example: A bank officer working on his computer, going through confidential data which he can easily steal or manipulate***
12. State any **two** ethical questions that can be raised about computers and their uses.
- **Is it right for someone who buys a program to copy it for a friend?**
  - **Is it fair to tap into someone else's computer data files.**
  - **Should computer operators regard all data they process as completely confidential?**
  - **Does a company owe a worker who has been replaced by a computer or any consideration other than that prescribed by labour law or contract?**
13. Essay Writing

Write an essay of about **200 - 250** words to answer each question.

**The computerisation of society refers broadly to the widespread use of computers which is the result of economic and technological trends.**

With reference to the above statement, discuss the following:

- economic trend
- technological trend
- **four** positive impacts and
- **three** negative impacts of computerisation in society

With reference to the above statement, discuss the following:

**Economic trend – *the computer can store, process and communicate information. It has helped to enhance the value of information and add value to products and services. For example, the clients' data in an insurance company can process and create profiles which enable the company to match its services better with its clients.*** (1 mark)

**Technological trend – is the development of microelectronic technology which has led to changes in both the nature of the products produced and the process by which the products are designed and manufactured. (1 mark)**

**Four (4) positive impacts**

*Positive impacts:*

*New jobs and job efficiency*

*New products and services*

*Increase in quality of products*

*Overall increase in the quality of living* (4 marks)

**Three (3) negative impacts of computerization in society**

*Negative Impacts:*

*Reduced in social interaction at work*

*Increased stress in learning new computer skills*

*Exposure to unwanted activities*

*Health issues* (3 marks)

### **WEEK 3**

1. State **one** purpose of an Integrated Development Environment (IDE).

*It has an editor for entering program instructions, compiler for running and testing program and allows creation of Web-based and Windows-based applications.*

2. Differentiate between a **pretest** and a **posttest** in a Do/Loop.

*Pretest is when the condition gets evaluated at the beginning of the loop cycle whereas posttest is when the loop condition gets evaluated at the end of the loop cycle.*

*or*

*In pretest loop, the body of the loop will not get executed if the condition does not hold the very first time whereas in posttest loop, the body of the loop will get executed at least once, regardless of the condition.*

*or*

*In pretest the condition is tested before the execution of statement whereas in posttest statement is executed first than the condition is tested.*

3. Describe when a programmer should use a masked textbox instead of a normal textbox in a VB.Net program.

*Masked box is used for specific formats like date format or phone number etc while textbox is used for normal input with option for multiline. A masked textbox is used when the programmer wants specific type of data to be entered into the textbox like numbers only or text or dates but in normal textbox there is no control since the user can enter any type of data.*

4. Use Dim to write a one line code to declare the variable.

i. That will store Students First\_Name ..... *Dim strFirst\_Name As String*

ii. That will store Bus\_fare ..... *Dim dblBus\_fare As Double*

iii. That will store Phone\_Number ..... *Dim strPhone\_Number As String*

5. Visual Basic is **event driven**. What does this mean?

*Code remains idle until called upon to respond to some event.*

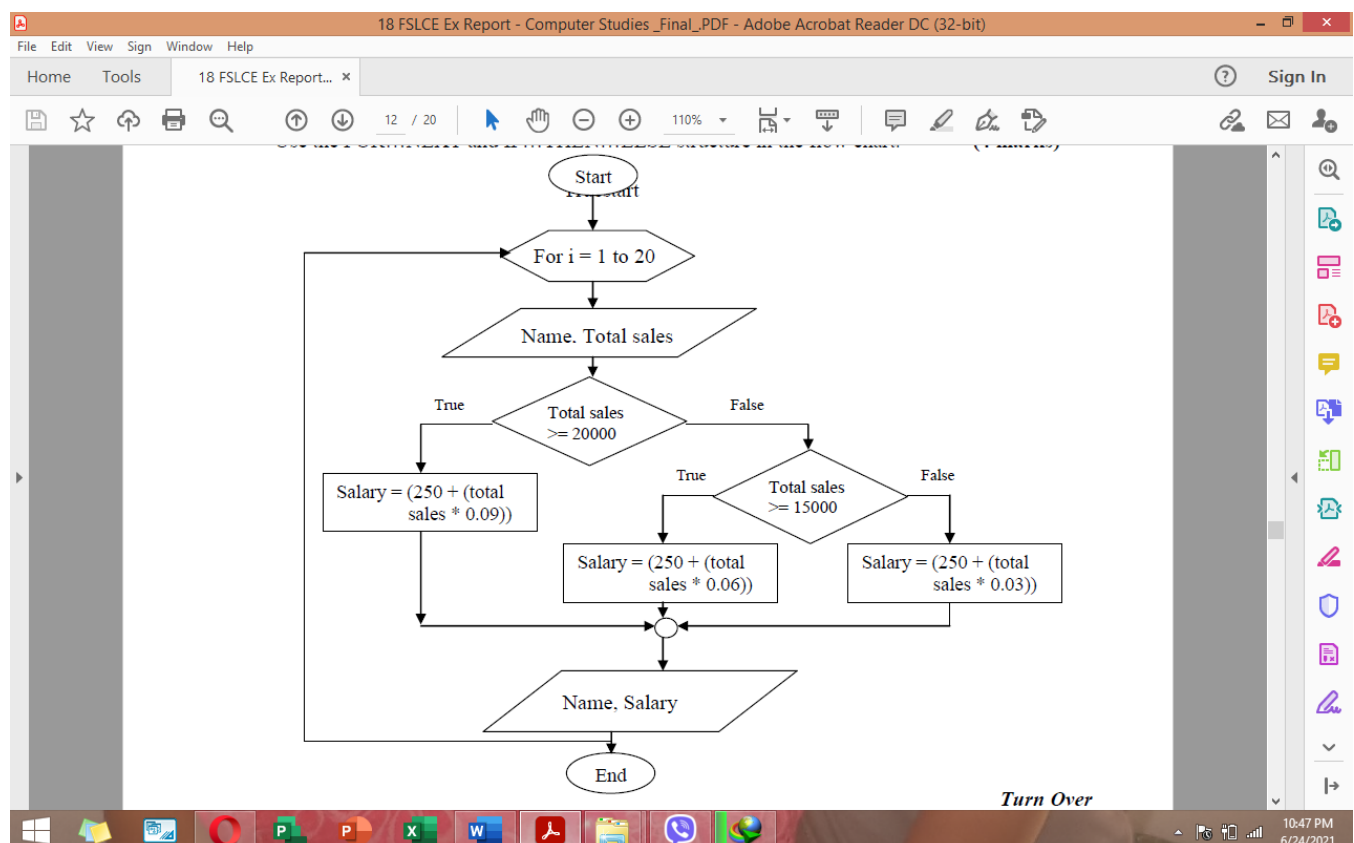
6. The first step to writing a good visual application is to have a good design of the user interface. List the other **two** steps.
- **Plan the properties**
  - **Plan the solution**
7. Describe when radio buttons are to be used instead of check boxes in a group box.  
**Radio buttons are used when only one selection is to be made out of many options in a group box whereas multiple selection can be done using check boxes.**
8. Jerrys Infotech Limited is a company that sells a wide range of office equipment to schools and offices around the country. Due to the high demand from the customers, the company has hired 20 employees to run the sales department. The company pays its sales team a weekly wage of \$250 plus commission made on all sales. The commission are as follows:

Sales	Commission
$\geq 10\ 000$	3%
$\geq 15\ 000$	6%
$\geq 20\ 000$	9%

**Draw a flow chart** for the program in the **Answer Booklet** that will enable the following:

- Request the user to enter the employee's name and the total sales for the week.
- Calculate the salary.
- Display the employee's name and the weekly salary.

Use the FOR...NEXT and IF...THEN...ELSE structure in the flow chart.



Write an essay of about **200 - 250** words to answer each question.

**Planning is a crucial phase in programming.**

With reference to the above statement, discuss the following:

- **three** steps that good programmers ensure before writing a good Visual Basic program
- **two** steps taken before the actual program implementation.
- state **one** logical structure used in writing structured programs.

**Three** steps that good programmers ensure before start writing a good Visual Basic program.  
(*identify the 3 and explain = 3 X 2 marks each = 6 marks*)

**(i) Design the user interface – when planning the user interface, one has to draw a sketch of the screens the user will see when the project is running. On the sketch, all the controls that is planned to be used in the application is shown and labeled. It is also important to consult with the users and make sure that they agree on the look and feel of the project before proceeding any further.**

**(ii) Plan the properties – For each object, write down the properties that you plan to set or change during the design of the form.**

**(iii) Plan the solution – In this step, you plan the classes and procedures that will execute when your project runs. You will determine which events require action to be taken and then make a step-by-step plan for those actions. The actual VB code will be written later. During this planning stage, you will write out the actions using pseudocode, which is an English expression. Some people prefer describing the steps using a flowchart.**

☐ **Two steps taken before the actual program implementation.( any 2 steps = 2 marks)**

**(i) Defines the user interface and objects using the IDE**

**(ii) Set the properties for the controls**

**(iii) Write the actual Basic code.**

☐ **State one logical structure used in writing structured programs ( any structure = 1 mark)**

**(i) Sequence structure – no decisions to be made the boxes logically follow one another.**

**(ii) Selection structure - represents a choice. It occurs when a choice must be made. The outcome of this structure offers two paths to follow when a decision must be made by a program. If ....then...else structure is used to determine which of the two available actions to choose depending on whether a condition evaluates to true or false.**

**(iii) Iteration / repetition (loop) structure – describes a process that may be repeated as long as a certain condition remains true.**