5th grade ICT – Final Exam Study Guide

UNIT 1 :

1. Hardware vs. Software

Hardware

- The **physical** parts of the computer (you can **touch** them).
- Examples:
    - Keyboard, mouse, monitor, printer
    - System unit, cables, speakers

Software

- The **programs / apps** that tell the hardware what to do.
- Examples:
    - Windows, Android, iOS
    - Microsoft Word, PowerPoint, Chrome
    - Games and learning apps

Think like this:
Hardware = body, Software = brain/instructions.

Example:
When you type a story in Word:

- Keyboard & monitor = **hardware**
- Word = **software**

2. System Software

System software controls how the **whole computer** works.

It includes:

a) Operating System (OS)

- Main program that starts when you turn on the computer.
- Manages:
    - Files & folders
    - Memory & CPU
    - Devices (keyboard, mouse, printer)
- Examples: Windows, macOS, Android, iOS.

b) Device Drivers

- Small programs that help the computer **talk to devices**.
- Examples:
    - Printer driver
    - Mouse driver
    - Graphics card driver

Example:
You connect a new printer → install the **printer driver** → now you can print.

c) System Utilities

- Helper programs that **take care of** the computer.
- Examples:
    - Antivirus – protects from viruses
    - Disk cleanup – removes junk files
    - File Explorer – manage files & folders

3. Application Software

Programs that help the **user** do specific tasks.

a) General Purpose Application Software

Used for **many different tasks**.

Examples:

- Microsoft Word – writing texts
- PowerPoint – presentations
- Excel – tables and calculations
- Web browsers – browsing the internet

b) Special Purpose Application Software

Made for **one main job**.

Examples:

- Hospital management system
- Restaurant ordering system
- School grading system
- Online banking system

Compare:

General Purpose	Special Purpose
Many kinds of tasks	One main task
Word, Excel, Chrome…	Hospital system, POS, school app…

4. System Development & Programming Languages

- **System development** = designing and creating software.
- People who write programs are called **programmers** or **developers**.
- They use **programming languages**, like:
    - Java, C++, C#, Python, PHP, etc.

Example:
A programmer uses **Python** to make a small game → that game is application software.

Quick Summary – Unit 1

- Hardware = physical parts, Software = programs.
- System software = OS + drivers + utilities.
- OS controls the computer and runs other programs.
- Device driver = translator between computer and device.
- Application software = programs for user tasks.
- General purpose vs special purpose apps.
- System development uses programming languages to create new software.

Practice – Unit 1

True / False

1. Microsoft Word is system software.
2. A printer driver is an example of a device driver.
3. Android is an operating system.
4. File Explorer is a kind of system utility.

Short Answer

1. What is the difference between **system software** and **application software**?
2. Give **one example** of general purpose software and **one example** of special purpose software.

UNIT 2 :

1. Voting & Class Surveys

1.1 Four Ways to Vote

You should know these **four ways**:

1. **Voice vote** – people say their choice out loud.
2. **Show of hands** – people raise their hand to vote.
3. **Paper vote** – people write their choice on paper and put it in a box.
4. **Online vote** – people vote using a form or website.

Example:

Choosing a class trip place:

- Teacher shouts “Who wants the zoo? Say YES” → Voice vote
- Teacher says “Raise your hand if you want the zoo” → Show of hands
- Teacher gives small papers, everyone writes a place → Paper vote
- Teacher sends a link to an online form → Online vote

You must be able to **look at a picture** and say which voting method it shows.

1.2 What Is a Survey?

- A **survey** is a way to **collect information or opinions** from many people.
- Example surveys:
    - Favourite food
    - Favourite sport
    - Best time for an activity

Paper survey idea:

1. Make a **table** in Word.
2. Give each student a **paper** to write their answer.
3. Collect the papers.
4. Count how many people chose each option.
5. The option with the **most votes** wins.

2. Microsoft Forms – Online Surveys & Quizzes

2.1 What Is Microsoft Forms?

- A web tool to **create surveys and quizzes** online.
- You can:
    - Add different types of questions
    - Share the form with a link
    - Collect answers
    - See results in charts

2.2 Steps to Create a Form

1. Open a **web browser** and go to: `forms.microsoft.com`.
2. **Sign in** to your Microsoft account.
3. Click **New Form**.
4. Write a **title** and (optionally) a description.
5. Click **Add new** to add a question.
6. Choose the **question type** (choice, text, rating, etc.).
7. Repeat until you add all your questions.

2.3 Sharing the Form

1. Click **Share**.
2. Click **Copy link**.
3. Send the link to classmates so they can answer.

3. Types of Questions in Microsoft Forms

You must know what each type does and be able to **match examples**.

3.1 Choice

- You choose one or more answers from a list.
- Example:
  What is your favourite fruit?
  ☐ Apple ☐ Banana ☐ Orange

3.2 Text

- You type your answer (short or long).
- Example:
  Write one goal you have for this year.

3.3 Rating

- You rate something with **stars or numbers**.
- Example:
  Rate today's lesson from 1 to 5 stars.

3.4 Date

- You choose a **date** from a calendar.
- Example:
  When is your birthday?

3.5 Ranking

- You **order items** from most liked to least liked.

- Example:
  Order these sports from favourite to least favourite: football, basketball, swimming.

3.6 Likert

- You choose how much you **agree or disagree** with statements using a scale.

- Example:
  “I enjoy doing homework.”
  Strongly agree / Agree / Neutral / Disagree / Strongly disagree

3.7 File Upload

- You upload a **file** as your answer.

- Example:
  Upload your science project PowerPoint.

3.8 Net Promoter Score (NPS)

- Rating from **0 to 10** about how likely you are to recommend something to a friend.

- Example:
  How likely are you to recommend this club to a friend? (0–10)

4. Question Settings & Options

Each question can have **extra settings**. Important ones:

4.1 For Choice Questions

- **Multiple answers**
    - Let the user choose **more than one option**.
    - Example: “Choose **all** the fruits you like.”
- **Shuffle options**
    - Changes the **order** of choices each time.
- **Drop-down**
    - Shows choices in a **drop-down list** instead of all at once.
- **Other**
    - Adds “Other:” so the student can type their own answer.

4.2 For Text Questions

- **Long answer**
    - Gives a **bigger text box** for longer answers (paragraphs).

4.3 For Rating Questions

- **Levels**
    - Choose how many rating steps (e.g. **1–5** or **1–10**).

- **Symbol**
    - Choose stars, numbers, etc.

4.4 For Likert, File Upload, NPS

- **Likert**
    - You can add more **statements** or more **options** on the scale.
- **File upload**
    - You can limit how many files can be uploaded and their size.
- **Net Promoter Score**
    - You can change the labels on each end of the scale (for example, “Not likely” and “Very likely”).

4.5 “Required” Setting

- If **Required** is ON → the user **must answer** this question before submitting the form.
- If OFF → user can skip the question.

4.6 Branching (Jump to Different Questions)

- **Branching** means: the next question can change depending on the answer.

Example:

Q1: *Do you like vegetables?*

- If **Yes** → go to Q2: “Which vegetables do you like?”
- If **No** → go to Q3: “Which fruits do you like instead?”

This makes the form **smart** and not the same for everyone.

5. Making a Quiz in Microsoft Forms

5.1 Steps

1. From the main page, click **New Quiz** (not New Form).
2. Add a **title**.
3. Add questions (choice, text, etc.).
4. For each question:
    - Select the **correct answer** (for choice questions).
    - Set the **points** (e.g. 5, 10…).
5. You can add **images or videos** if needed.
6. Share the quiz link with students. Forms can automatically **grade** many questions.

Example:

- Q1: *What is 5 × 6?*
  Choices: 30, 28, 24, 26
  Correct answer: **30**, Points: **10**
- Q2: *What is the capital of France?*
  Text answer: **Paris**, Points: **10**

Total quiz points = 20.

6. Designing Your Own Survey

Typical steps:

1. **Choose a topic**
    - Favourite hobbies, favourite subjects, favourite snacks, etc.
2. **Create the form**
    - Go to forms.microsoft.com → New Form
    - Add at least **3–5 questions** using **different types** (choice, rating, text, etc.).
3. **Preview & test**
    - Click **Preview**, answer your own survey, check if everything works.
4. **Share**
    - Click **Share** → **Copy link** → **send to classmates** (or show QR code).

Quick Summary – Unit 2

- Ways of voting: **voice, show of hands, paper, online**.
- Survey = method to **collect information** from many people.
- Microsoft Forms = tool for **online surveys and quizzes**.
- Question types: **choice, text, rating, date, ranking, Likert, file upload, NPS**.
- Important settings: **multiple answers, shuffle options, drop-down, long answer, levels, required, branching**.
- New Quiz → add questions → set **correct answers** and **points** → share link.

Practice – Unit 2

A. Match the Question to the Type

1. “Which city is the capital of Italy?
   ☐ Rome ☐ Paris ☐ Madrid”

2. “Describe your favourite hobby in 2–3 sentences.”

3. “Rate today’s lesson from 1 to 5 stars.”

4. “When is your birthday?”

5. “Upload a picture of your science project.”

Types:

- Text
- Date
- Rating
- Choice
- File upload

(**Answers:** 1–Choice, 2–Text, 3–Rating, 4–Date, 5–File upload)

B. Multiple Choice

1. Which type is best for a question with many possible answers and you want to **let students choose more than one**?
   a) Text
   b) Choice with “multiple answers”
   c) Rating
   d) Date

2. Which type is best for *“Put these sports in order from your favourite to least favourite”*?
   a) Ranking
   b) Rating
   c) Likert
   d) Text

3. Which setting makes answers appear in **different order** each time?
   a) Required
   b) Multiple answers
   c) Shuffle options
   d) Drop-down

4. What does **Required** mean?
   a) Question will be deleted
   b) Question must be answered before submitting
   c) Question gives extra points
   d) Question becomes multiple choice

(**Answers:** 1–b, 2–a, 3–c, 4–b)