

PART - A - JULY

Chapter - 3 ICT Skills - II

I Answer the following

1. What is ICT?

Ans ICT refers to all the methods, tools, concepts related to storing, recording and sending digital information.

2. Define hardware and software?

Ans A Computer System consists of two main parts, the hardware and software. All the physical parts of the computer are known as hardware. All the non-physical parts are called software.

3. Define OS and give some examples.

Ans OS - Operating System
OS is the system software, it acts as an interface between the user and the hardware.

ex - Linux, Unix, Windows

4. List out the mouse functions.

Ans

1. Roll over
2. Click
3. Drag and drop
4. Double click



5. How Can we protect our data?

- Ans
- * Use Strong Password in your account
 - * Install Antivirus and firewall
 - * Encrypt your data
 - * Open only secure website

6. Difference between files and folder

Ans File - A place where information is stored in Computer. It has a name and extension both.
ex - Sample.txt, Sample.gif

Folder - A Location where a group of files can be stored. It has only name.

PART B



Chapter - 4 Statistical data (Practical)

Answer the following

1. Name any two cloud based No-Code AI tools?

Ans: The cloud based No Code AI tools are Azure machine learning and google Cloud AutoML.

2. What types of tasks can be accomplished with no-code AI tools?

Ans: The task that can be accomplished with no code AI tools are text analysis, Predictive analytics and image recognition.

3. What are the benefits of using No Code AI tools?

Ans: The benefits of using no-code AI tools are -

Accessibility - No Code empowers non-technical makers to create websites and applications to solve business problems.

fast & Time Saving - No need to write complex code, you can create and deploy AI solution much faster

Easy to use - No Code AI platforms have simple drag and drop user friendly interfaces that allow anyone even without technical skills, to build and deploy AI models.

Innovation

No Code AI allows businesses to quickly experiment with AI driven solutions, helping them innovate faster and adapt to changing market needs.

4. What are the challenges faced in using the No Code AI tools?

Ans. The challenges faced using the no-code AI tools are

- Lack of flexibility
- Automation Bias
- Security issues
- Performance Limitations

5. What is Statistical Sampling?

Ans. Statistical Sampling is a method used to select a smaller group (sample) from a larger group to study.

6. Differentiate between mean and median

Ans. Mean (Average)

The mean is the most common way to describe the central or typical value in a set of data. To find a mean, you add up all the numbers in your data and then divide by how many numbers there are.

Example -

If you have the numbers 6, 3, 4, 7 the mean would

$$6 + 3 + 4 + 7 = 20 / 4 = 5$$

So the mean is 5.

Median

The median is the middle value of a dataset when the numbers are arranged in ascending order. If there is an odd number of values, the median is the one right in the middle. If there is an even number of values, the median is the average of the two middle numbers.

Example -

for the data 1, 3, 5, 7

Median is

$$(3 + 5) / 2 = 4$$

Part - B



Chapter 5.1 Computer Vision (Theory)

Answer the following

1. What is the Concept of Computer Vision

Ans Computer Vision means giving the ability to the Computer to see the world just like humans. It is a domain of artificial intelligence that enables Computer to see, observe and understand digital images.

2. What are the applications of Computer Vision in Security Systems?

Ans Computer vision is used in Security Systems for Surveillance, facial recognition, detecting suspicious activities and monitoring public spaces. It helps identify threats and provide real time alerts to Security personnel.

3. What is a Pixel? Give any two important features of pixel in a digital image.

Ans Pixel - Picture element

A pixel is the absolute smallest fundamental building block of a digital image. Features of pixel

- (i) Resolution
- (ii) Colour depth

4. What is Computer Vision and how does it relate to Artificial Intelligence?

Ans Computer Vision means giving the ability to the Computer to see the world just like humans. It is a domain of Computer AI that enables Computer to see, observe and understand digital images or data process them by acquiring, screening, analysing, identifying and extracting information using the machine learning and neural network algorithms.

Computer Vision works on the same phenomena as that of human vision. It is ruling the industries like Manufacturing automobile, power plants etc. Computer Vision is the part of AI that focuses on helping machines understand and interpret visual information like images and video. While AI works to make machine think like humans. This allows machines to observe, recognise patterns and gather useful information from visual data.

5. Define Resolution

Ans Resolution is basically the dimensions through which you can measure how many pixels are on a screen (or) an image.