

- vi. **According to the sources, what is a significant disadvantage of Artificial Intelligence?**
- a) It has a higher error rate than human intelligence.
 - b) It is unable to store and retrieve massive amounts of data.
 - c) It can cause severe unemployment by replacing humans at their jobs.
 - d) It cannot function in hostile environments like deep underwater.

Q2. State True or False for the following statements (5 x 1 = 5)

- i. One advantage of AI is that it can work in hostile environments where humans cannot.
- ii. AI is a specialist.
- iii. Computational thinking is the process of breaking down a problem into simple steps before programming.
- iv. A Scanner is an output device used to display pictures on a screen.
- v. A Mouse is a typing device.

Q3. For each question, choose the correct option: (4 x 1=4)

- a) Both Assertion (A) and Reason (R) are true, and R is the correct explanation of A.
 - b) Both Assertion (A) and Reason (R) are true, but R is NOT the correct explanation of A.
 - c) Assertion (A) is true, but Reason (R) is false.
 - d) Assertion (A) is false, but Reason (R) is true.
- i. **Assertion (A):** A computer system is capable of understanding only two states, represented as 0 and 1.
Reason (R): The smallest unit of data is a **Bit**, where 1 represents 'True/On' and 0 represents 'False/Off'
 - ii. **Assertion (A):** The **Internet of Things (IoT)** allows objects like cars and appliances to exchange data in real time.
Reason (R): These connected objects use **embedded sensors** to communicate with the cloud and other devices over the internet
 - iii. **Assertion (A):** In a flowchart for calculating the area of a rectangle, the step "Display Area" should be placed inside a parallelogram.
Reason (R): The parallelogram symbol is specifically used to denote either an input operation or an output operation, such as printing a result
 - iv. **Assertion (A):** Learning computational thinking is considered essential for students even if they do not intend to become professional programmers.
Reason (R): Research suggests that more than 65% of students will eventually work in jobs that do not currently exist, making these problem-solving skills vital for the digital age

Section B

Q4. Write the answer in short. (2 x 2 = 4)

- i. Write any two different types of Intelligence the Human has.
- ii. Write an algorithm of making a lemonade with correct sequence and flow.

Section C

Q5. Do as directed. (3 x 2 = 6)

- a) Write the key components of CPU and explain them.
- b) Draw a flowchart of determining the entered age is a senior citizen, or an adult.

***** ALL THE BEST *****