WELLAND GOULDSMITH SCHOOL

CLASS - 6

SUBJECT - COMPUTER SCIENCE

TOPIC - CATEGORIES OF COMPUTERS AND COMPUTER LANGUAGES

ANSWER SHEET

A. Fill in the blanks:-
   1) Huge, machine
   2) Transistors
   3) Microprocessor
   4) Input, output
   5) Jack Kilby and Robert Noyce
   6) Artificial Intelligence
   7) Mainframe

B. Write full forms:-

   4LG- Fourth Generation Computer

   VB- Visual Basic

   FORTRAN- Formula Translation

   BASIC- Beginners All Purpose Symbolic Instruction Code

   COBOL- Common Business Oriented Language

   HLL- High Level Language

   PMP- Portable Media Player

   VLSI- Very Large Scale Integrated

   IC- Integrated Circuit

   ENIAC-Electronic Numerical Integrated & Computer

   UNIVAC- Universal Automatic Computer

C. <u>DEFINE:-</u>

<u>Artificial Intelligence -</u> It is a technology that enables a computer to think like humans and perform human-like tasks such as voice recognition, decision-making and translation between languages.

<u>Smart Phones</u>- It is a combination of a mobile phone and a computer system. It is used to check our email, book a ticket, locate places or shop online.

<u>Embedded computers</u>- A computer that is integrated into another device is called an embedded computer. It performs a specific function of that device. It is also known as microcontroller. These computers have been used in modern TV sets, motor vehicles, telephones, digital cameras, washing machines, microwave and dishwasher.

<u>Machine Code</u>- It is the converted code that the computer can easily understand. Before the code is ready for execution, there is a process of checking for errors. The programmer can remove any errors that are detected in the source code.

<u>Translator</u>- A translator is used to convert one form of language to the other so that a computer understands the instructions it receives. A program written in a high level language is called source code.

D<u>. Answer in brief</u>:

1) The types of Translators are- Assembler, Compiler and Interpreter.

2) Three fifth generation languages are- Mercury, OPS5 and PROLOG.

3) Two features on machine language-

    a) It is machine dependent.

    b) It is directly understood by a computer.

4) A computer that is integrated into another device is called as embedded computer. It is also called as microcontroller. These computers used in modern TV sets, digital camera, washing machines, microwave etc.

5) Examples of game consoles- Microsoft Xbox, Sony Play station, Nintendo GameCube etc.

6) Super computers are used for scientific research, weather forecasting, underground studies, and aircraft designing and so on.

7) Manufacturer of microcomputers are- Dell, Apple, HP and IBM.

8) Technology used by each generation of computers are-

  1st generation- Vacumme tube   3rd generation- Integrated circuits

  2nd generation- Transistor   4th generation- Microprocessor

            5th generation- Artificial Intelligence

9) Two examples of 5th generation computers- Robot, Siri, Google Now.

10) J. Eckert and J. Mauchly.

E. Answer the following:-

1) Differences:

  INTERPRETER   COMPILER

  a) It performs the translation of a program   a) It performs line by line translation. It is

     as a whole. It is faster.   slower.

  b) Errors are reported after the entire program   b) It stop translation when the 1st error is

     is translated. It is difficult and time consuming.   met. This process is easy and quick.

  c) C and C++ use compiler.   c) Python, BASIC and RUBY used interpreter.

   ASSEMBLER   INTERPRETER

  It translate a program written in an   It translates a program written in a high

  assembly language into a machine language.   level language into a machine language.

2) In Machine Language each instruction are written in the form of 0s and 1s. Instructions given in any other language are first converted into Machine Language so that the computer can understand it. That is why Machine Language programs are executed very quickly.

3) <u>Features of Fourth Generation Computers</u>

- They use microprocessor as a technology.
- More powerful and reliable.
- Have high storage capacities.
- They use keyboard, mouse and scanner for input and monitor, printer, speakers for output.
- They are smaller, faster and cheaper.

<u>EXERCISE FROM THE TEXT BOOK</u>

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A) <u>Tick the correct answer</u>:-

1. c. microprocessors.

2. b. mainframes

3. c. 2 single digits

4. a. high level languages

5. a. language translator

B) <u>Fill in the blanks</u>:-

1. Minicomputers.

2. Robots.

3. Binary language.

4. Interpreter

C) <u>Match the column</u>:-

1. Artificial Intelligence-5th gen computer   2. Microprocessor- 4th gen computer

3. Transistor- 2nd gen computer   4. Vacuum tubes- 1st gen computer

5. Integrated circuit- 3rd gen computer

D) See the answer of the worksheet Q.no. B) Full forms.

E) Write two examples of each:

1) HLL- BASIC, COBOL

2) 4GL-Stata, FOXPRO

3) Game Consoles- Microsoft X box

F) 1. <u>Characteristics of 5th gen computers</u>:

- They use ultra-scale integrated chips.
- They support artificial intelligence.
- Hey have the ability to solve complex problems including decision-making and logical reasoning.

2. See the answer of the worksheet Q.no. E) 1.

3. High level languages are similar to machine languages and is user-friendly. So they are easier

to learn and use.

4. Mobile computers are the smallest computers designed to be carried around by their-user.

They all are user-friendly, lightweight and very convenient. Examples – laptop, netbooks,

Smartphone, Tablets etc.

5. Supercomputers are used for scientific research, weather forecasting, underground studies,

Aircraft designing and so on.

Cray-1 and IBM's Blue Gene/L are examples of supercomputers.

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