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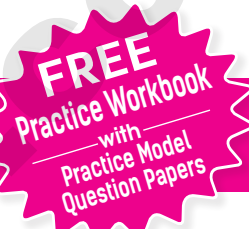
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It gives me great pride and pleasure in bringing to you **Sura's Computer Applications Guide** for +1 Standard. A deep understanding of the text and exercises is rudimentary to have an insight into Computer Applications. The students and teachers have to carefully understand the topics and exercises.

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Mr. Subash Raj, B.E., M.S.

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தள்ளுபடி விற்பனையில்

2022-23 பதிப்பு

புதிய பாடப்புத்தகத்தின்படி
தயாரிக்கப்பட்டுள்ளது.

அனைத்து புத்தக கடைகளிலும் கிடைக்கிறது

UNIT- 1 FUNDAMENTALS OF COMPUTER AND WORKING WITH A TYPICAL OPERATING SYSTEMS (WINDOWS & LINUX)

CHAPTER 1 INTRODUCTION TO COMPUTERS

CHAPTER SNAPSHOT

* **1.1. Introduction to Computers**
* **1.2. Generations of Computers**
* **1.3. Sixth Generation Computing**
* **1.4. Data and Information**
* **1.5. Components of a Computer**
  * **1.5.1. Input Unit**
  * **1.5.2. Central Processing Unit**
  * **1.5.3. Output Unit**
  * **1.5.4. Memory Unit**
  * **1.5.5. Input and Output devices**
* **1.6. Booting of Computer**

EVALUATION

PART - I

CHOOSE THE CORRECT ANSWER.

1. First generation computers used   *[HY. 2019]*
- (a) Vacuum tubes
- (b) Transistors
- (c) Integrated circuits
- (d) Microprocessors

[Ans. (a) Vacuum tubes]

2. Name the volatile memory
- (a) ROM
- (b) PROM
- (c) RAM
- (d) EPROM

[Ans. (c) RAM]

3. Identify the output device
- (a) Keyboard
- (b) Memory
- (c) Monitor
- (d) Mouse

[Ans. (c) Monitor]

4. Identify the input device   *[June 2019]*
- (a) Printer
- (b) Mouse
- (c) Plotter
- (d) Projector

[Ans. (b) Mouse]

5. …………… Output device is used for printing building plan.
- (a) Thermal printer
- (b) Plotter
- (c) Dot matrix
- (d) Inkjet printer

[Ans. (b) Plotter]

6. Which one of the following is used to in ATM Machines   *[Sep - 2020]*
- (a) Touch Screen
- (b) Speaker
- (c) Monitor
- (d) Printer

[Ans. (a) Touch Screen]

7. When a system restarts which type of booting is used.   *[Mar. 2019; QY. 2019]*
- (a) Warm booting
- (b) Cold booting
- (c) Touch boot
- (d) Real boot.

[Ans. (a) Warm booting]

8. Expand POST   *[Govt.MQP-2018]*
- (a) Post on self Test
- (b) Power on Software Test
- (c) Power on Self Test
- (d) Power on Self Text

[Ans. (c) Power on Self Test]

9. Which one of the following is the main memory?
- (a) ROM
- (b) RAM   *[QY. 2019]*
- (c) Flash drive
- (d) Hard disk

[Ans. (b) RAM]

10. Which generation of computer used IC's?
    [Sep. 2021]
- (a) First
- (b) Second
- (c) Third
- d) Fourth

[Ans. (c) Third]

PART - II

VERY SHORT ANSWER.

1. What is a computer?   *[Mar. 2019; QY. & HY. 2019]*

Ans. **(i)** A computer is an electronic device that manipulates information, or data. It has the ability to store, retrieve, and process data.

(ii) Computer works faster than human being and given the values more accuracy and reliable

2. Distinguish between data and information.

Ans.

Data	Information
Data is defined as an unprocessed collection of raw facts, suitable for communication, interpretation or processing.	Information is a collection of facts from which conclusions may be drawn.
(Eg) 134, 16, 'Kavitha', 'C'	**(Eg)** Kavitha is 16 years old.

3. What are the components of a CPU?

Ans. The CPU has three components which are Control unit, Arithmetic and Logic Unit (ALU) and Memory unit.

4. What is the function of an ALU?

Ans. **(i)** The ALU performs arithmetic operations.

(ii) The result of an operation is stored in internal memory of CPU.

(iii) The logical operations of ALU promote the decision making ability of a computer.

5. Write the functions of control unit.

Ans. The control unit controls the flow of data between the CPU, memory and I/O devices. It also controls the entire operation of a computer.

6. What is the function of memory?

Ans. The primary memory is used to temporarily store the programs and data when the instructions are ready to execute. The secondary memory is used to store the data permanently.

7. Differentiate Input and Output unit. **[QY. 2019]**

Ans.

Input Unit	Output Unit
Input unit is used to feed any form of data to the computer, which can be stored in the memory unit for further processing.	An output unit is any hardware component that conveys information to users in an understandable form.
Example : Keyboard, mouse etc.	**Example :** Monitor, Printer etc.

8. Distinguish Primary and Secondary memory.

Ans.

Primary Memory	Secondary memory
It is used to temporarily store the programs and data when the instructions are ready to execute.	It is used to store the data permanently.
It is volatile, the content is lost when the power supply is switched off. **Eg.** RAM.	It is non-volatile, the content is available even after the power supply is switched off. **Eg.** ROM, CD-ROM, DVD ROM.

Part - III

Short Answers.

1. What are the characteristics of a computer?

Ans.
(i) Computer is the powerful machine.
(ii) It can perform large number of tasks.
(iii) The main capacities of computer are work length, speed accuracy, diligence, versatility memory and automation and lots of more tasks.

2. Write the applications of computer.

Ans. The various applications of computers are,
(i) Business   (ii) Education
(iii) Marketing   (iv) Banking
(v) Insurance   (vi) Communication
(vii) Health care
(viii) Engineering - Robotics, Nano technology, Bio Engineering

3. What is an input device? Give two examples.

[HY. 2019]

Ans. Input device is used to feed any form of data to the computer, which can be stored in the memory unit for further processing.
Example: Keyboard, mouse, Scanner, Fingerprint scanner, Track Ball, Retinal Scanner, Light pen etc.

4. Name any three output devices. **[QY. 2019; Sep. 2021]**

Ans. (i) Monitor   (ii) Printer
(iii) Plotter   (iv) Speaker
(v) Multimedia projectors are the output devices.

5. Differentiate optical and Laser mouse.

Ans.

Optical Mouse	Laser Mouse
Measures the motion and acceleration of pointer.	Measures the motion and acceleration of pointer.
It uses light source instead of ball to judge the motion of the pointer.	Laser Mouse uses Laser Light.
Optical mouse is less sensitive towards surface.	Laser Mouse is highly sensitive and able to work on any hard surface.

6. Write short note on impact printer.

Ans. Impact printers :
(i) These printers print with striking of hammers or pins on ribbon. These printers can print on multi-part (using carbon papers) by using mechanical pressure. For example, Dot Matrix printers and Line matrix printers are impact printers.
(ii) A Dot matrix printer that prints using a fixed number of pins or wires.
(iii) Line matrix printers use a fixed print head for printing.

7. Write the characteristics of sixth generation.

[Govt.MQP-2018]

Ans. (i) In the Sixth Generation, computers could be defined as the era of intelligent computers based on Artificial Neural Networks.
(ii) One of the most dramatic changes in the sixth generation will be the explosive growth of Wide Area Networking.
(iii) Natural Language Processing (NLP) is a component of Artificial Intelligence (AI).
(iv) It provides the ability to develop the computer program to understand human language.

CHAPTER **2**

NUMBER SYSTEMS

CHAPTER SNAPSHOT

EVALUATION

PART - I

CHOOSE THE CORRECT ANSWER.

1. Which refers to the number of bits processed by a computer's CPU?   *[March 2020]*

   (a) Byte   (b) Nibble

   (c) Word length   (d) Bit

             [Ans. (c) Word length]

2. How many bytes does 1 KiloByte contain?

   (a) 1000   (b) 8

   (c) 4   (d) 1024   **[Ans. (d) 1024]**

3. Expansion for ASCII

   (a) American School Code for Information Interchange

   (b) American Standard Code for Information Interchange

   (c) All Standard Code for Information Interchange

   (d) American Society Code for Information Interchange

   [Ans. (b) American Standard Code for Information Interchange]

4. 2^50 is referred as

   (a) Kilo   (b) Tera

   (c) Peta   (d) Zetta

             [Ans. (c) Peta]

5. How many characters can be handled in Binary Coded Decimal System?

   (a) 64   (b) 255

   (c) 256   (d) 128   **[Ans. (a) 64]**

6. For 1101_2 the equalent Hexadecimal equivalent is?

   (a) F   (b) E

   (c) D   (d) B

             [Ans. (c) D]

7. What is the 1's complement of 00100110?

   (a) 00100110   (b) 11011001

   (c) 11010001   (d) 00101001

         [Ans. (b) 11011001]

8. Which amongst this is not an Octal number?

   (a) 645   (b) 234   *[QY. 2019]*

   (c) 876   (d) 123   **[Ans. (c) 876]**

PART - II

VERY SHORT ANSWERS.

1. What is data?

Ans. The term data comes from the word datum, which means a raw fact. The data is a fact about people, places or some objects.

2. Write the 1's complement procedure.

Ans. **Step 1:** Convert given Decimal number into Binary

    Step 2: Check if the binary number contains 8 bits, if less add 0 at the left most bit, to make it as 8 bits.

    Step 3: Invert all bits (i.e. Change 1 as 0 and 0 as 1).

3. Convert $(46)_{10}$ into Binary number.

Ans.

2	46	
2	23	– 0
2	11	– 1
2	5	– 1
2	2	– 1
2	1	– 0

Answer - $46_{10} = (101110)_2$

4. We cannot find 1's complement for $(28)_{10}$. State reason.

Ans. $(28)_{10}$ is positive number. 1's Complement represent signed numbers (Negative numbers) only. So, $(28)_{10}$ cannot find 1's complement.

5. List the encoding systems that represents characters in memory.

Ans. **(i)** BCD – Binary Coded Decimal.

    (ii) EBCDIC – Extended Binary Coded Decimal Interchange Code.

    (iii) ASCII – American Standard Code for Information Interchange.

    (iv) Unicode.

    (v) ISCII - Indian Standard Code for Information Interchange.

PART - III

SHORT ANSWERS.

1. What is radix of a number system? Give example

Ans. A numbering system is a way of representing numbers. Each number system is uniquely identified by its base value or radix. Radix or base is the count of number of digits in each number system. Radix or base is the general idea behind positional numbering system.

Example :

Binary Number System - Radix 2

Octal Number System - Radix 8

Decimal Number System - Radix 10

Hexadecimal Number System - Radix 16.

2. Write note on binary number system.   [HY. 2019]

Ans. **(i)** There are only two digits in the Binary system, namely, 0 and 1. The numbers in the binary system are represented to the base 2 and the positional multipliers are the powers of 2.

(ii) The left most bit in the binary number is called as the Most Significant Bit (MSB) and it has the largest positional weight.

(iii) The right most bit is the Least Significant Bit (LSB) and has the smallest positional weight.

3. Convert $(150)_{10}$ into Binary, then convert that Binary number to Octal.   [Sep. 2020]

Ans. 150_{10} = ?

```
2 | 150
2 | 75  – 0
2 | 37  – 1
2 | 18  – 1
2 | 9   – 0
2 | 4   – 1
2 | 2   – 0
    1   – 0
```

$150_{10} = (10010110)_2$

10010110_2 = ?

$$\overline{10}\ \overline{010}\ \overline{110}$$
$$2\quad 2\quad 6$$

$10010110_2 = 226_8$.

4. Write short note on ISCII.

Ans. **(i)** ISCII is the system of handling the character of Indian local languages. This as a 8-bit coding system.

(ii) Therefore it can handle 256 (2^8) characters. This system is formulated by the department of Electronics in India in the year 1986-88 and recognized by Bureau of Indian Standards (BIS).

(iii) Now this coding system is integrated with Unicode.

5. Add a) $-22_{10}+15_{10}$ b) $20_{10}+25_{10}$ [QY. 2019; HY. 2019]

Ans. **(a)** $-22_{10}+15_{10}$

```
2 | 22           2 | 15
2 | 11 – 0       2 | 7  – 1
2 | 5  – 1       2 | 3  – 1
2 | 2  – 1       2 | 1  – 1
    1  – 0
```

$(1111)_2 \Rightarrow (00001111)_2$

$(10110)_2 \Rightarrow (00010110)_2$

1's complement   = 11101001

2's complement   = 11101010

$(-22)_{10} + (15)_{10}$ = 11101001

= 00001111

$\overline{11111001}$

(b) $20_{10}+25_{10}$

```
2 | 20           2 | 25
2 | 10 – 0       2 | 12 – 1
2 | 5  – 0       2 | 6  – 0
2 | 2  – 1       2 | 3  – 0
    1  – 0           1  – 1
```

$(10100)_2$ = $(11001)_2$

8 bit format of 20_{10} = 00010100

8 bit format of 25_{10} = 00011001

$20_{10} + 25_{10}$ = $\overline{00101101}$

$20_{10} + 25_{10} = 00101101_2$

PART - IV

EXPLAIN IN DETAIL.

1. **a)** Write the procedure to convert fractional Decimal to Binary **[March 2020]**

b) Convert $(98.46)_{10}$ to Binary **[QY. 2019]**

Ans. **a)** The method of repeated multiplication by 2 has to be used to convert such kind of decimal fractions.

The steps involved in the method of repeated multiplication by 2:

Step 1: Multiply the decimal fraction by 2 and note the integer part. The integer part is either 0 or 1.

Step 2: Discard the integer part of the previous product. Multiply the fractional part of the previous product by 2. Repeat Step 1 until the same fraction repeats or terminates (0).

Step 3: The resulting integer part forms a sequence of 0s and 1s that become the binary equivalent of decimal fraction.

Step 4: The final answer is to be written from first integer part obtained till the last integer part obtained.

b) 98.46_{10}

1. Integer part

```
2 | 98
2 | 49  – 0
2 | 24  – 1
2 | 12  – 0
2 | 6   – 0
2 | 3   – 0
  | 1   – 1
```

2. Fractional part

$0.46 \times 2 = 0.92 = 0$

$0.92 \times 2 = 1.84 = 1$

$0.84 \times 2 = 1.68 = 1$

$0.68 \times 2 = 1.36 = 1$

$0.36 \times 2 = 0.72 = 0$

$0.72 \times 2 = 1.44 = 1$

$98.46_{10} = (1100010.011101....)_2$

2. Find 1's Complement and 2's Complement for the following Decimal number. **a)** -98 **b)** -135

Ans. **a)** -98

```
2 | 98
2 | 49  – 0
2 | 24  – 1
2 | 12  – 0
2 | 6   – 0
2 | 3   – 0
  | 1   – 1
```

$= 98_{10} = 1100010$

8 bit format of 98_{10} $= 01100010$

1's complement	=	10011101
Add 1 bit	=	+1
2's complement	=	10011110

b) -135

```
2 | 135
2 | 67  – 1
2 | 33  – 1
2 | 16  – 1
2 | 8   – 0
2 | 4   – 0
2 | 2   – 0
  | 1   – 0
```

$135_{10} = 10000111$

1's complement	=	01111000
Add 1 bit	=	+1
2's complement	=	01111001

3. **a)** Add $1101010_2 + 101101_2$

b) Subtract $1101011_2 - 111010_2$ **[Sep. 2020]**

Ans. **a)** $1101010_2 + 101101_2$

```
  1101010
 +101101
 _____
 10010111
```

$= 10010111_2$

b) $1101011_2 - 111010_2$

```
  1101011
 +111010
 _____
  110001
```

$= 110001_2$

WORKSHOP

1. **Identify the number system for the following numbers.**

Ans.

S.No	NUMBER	NUMBER SYSTEM
1.	$(1010)_{10}$	Decimal Number system
2.	$(1010)_2$	Binary Number System
3.	$(989)_{16}$	Hexadecimal Number System
4.	$(750)_8$	Octal Number System
5.	$(926)_{10}$	Decimal Number System

2. **State whether the following numbers are valid or not. If invalid, give reason.**

Ans.

S.No	STATEMENT	YES / NO	REASON (IF INVALID)
1.	786 is an Octal number	No	In. octal number, the allowable digits is between 0 and 7
2.	101 is a Binary number	No	No Radix is mentional
3.	Radix of Octal number is 7	No	Radix of octal number is 8

3. **Convert the following Decimal numbers to its equivalent Binary, Octal, Hexadecimal.**

1) 1920 2) 255 3) 126

Ans. 1) $1920_{10} = ?_2$

```
2 │ 1920
2 │ 960  – 0
2 │ 480  – 0
2 │ 240  – 0
2 │ 120  – 0
2 │ 60   – 0
2 │ 30   – 0
2 │ 15   – 0
2 │ 7    – 1
2 │ 3    – 1
    1    – 1
```

$1920_{10} = 11110000000_2$

$1920_{10} = ?_8$

```
8 │ 1920
8 │ 240 – 0
8 │ 30  – 0
    3   – 6
```

$1920 = 3600_8$

```
16 │ 1920
16 │ 120 – 0
     7   – 8
```

$= 1920_{10} = 780_{16}$

2) 255_{10}

```
2 │ 255
2 │ 127 – 1
2 │ 63  – 1
2 │ 31  – 1
2 │ 15  – 1
2 │ 7   – 1
2 │ 3   – 1
2 │ 1   – 1
```

$255_{10} = 11111111_2$

$255_{10} = ?_8$

```
8 │ 255
8 │ 31 – 7
    3  – 7
```

$255_{10} = 377_8$

$255_{10} = ?_{16}$

```
16 │ 255
     15 – 15     │15 – F│
```

$255_{10} = FF_{16}$

3) 126_{10}

```
2 | 126
2 | 63  – 0
2 | 31  – 1
2 | 15  – 1        126₁₀ = 1111110₂
2 | 7   – 1
2 | 3   – 1
    1   – 1
```

$126_{10} = \text{?}_8$

```
8 | 126
8 | 15 – 6
    1 – 7
```

$126_{10} = 176_8$

$126_{10} = \text{?}_{16}$

```
16 | 126
   | 7 – 14
   | 14 – F
```

$126_{10} = 7E_{16}$

4. **Convert the given Binary number into its equivalent Decimal, Octal and Hexadecimal number.**

   1)   **101110101**   **2)** **1011010**   **3)** **101011111**

Ans. **1)**   **101110101**

Decimal Equivalent :

$$= 1 \times 2^8 + 0 \times 2^7 + 1 \times 2^6 + 1 \times 2^5 + 1 \times 2^4 + 0 \times 2^3 + 1 \times 2^2 + 0 \times 2^1 + 1 \times 2^0$$

$$= 256 + 64 + 32 + 16 + 4 + 1 = 373_{10}$$

Octal Equivalent :

$$= \overline{101} \ \overline{110} \ \overline{101}$$
$$\quad 5 \quad 6 \quad 5$$

$$= 565_8$$

Hexadecimal Equivalent :

$$= \overline{10} \ \overline{1110} \ \overline{101}$$
$$\quad 1 \quad 7 \quad 5$$

$$= 175_{16} \ ;$$

$$10110101_2 = 373_{10} = 565_8 = 175_{16}$$

2) 1011010_2

Decimal Equivalent :

$$= 1 \times 2^6 + 0 \times 2^5 + 1 \times 2^4 + 1 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 0 \times 2^0$$

$$= 64 + 16 + 8 + 2 = 90_{10}$$

Octal Equivalent :

$$= \overline{10} \ \overline{110} \ \overline{110}$$
$$\quad 1 \quad 3 \quad 2$$

$$= 132_8$$

Hexadecimal Equivalent :

$$= \overline{101} \ \overline{1010}$$
$$\quad 5 \quad 10$$
$$\quad 5 \quad A$$

$$= 54_{16}$$

$$1011010_2 = 90_{10} = 132_8 = 5A_{16}$$

3)   **101011111**

Decimal Equivalent :

$$= 1 \times 2^8 + 0 \times 2^7 + 1 \times 2^6 + 0 \times 2^5 + 1 \times 2^4 + 1 \times 2^3 + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^0$$

$$= 256 + 64 + 16 + 8 + 4 + 2 + 1 = 351_{10}$$

Octal Equivalent :

$$= \overline{101} \ \overline{011} \ \overline{111}$$
$$\quad 5 \quad 3 \quad 7$$

$$= 537_8$$

Hexadecimal Equivalent :

$$= \overline{10} \ \overline{101} \ \overline{1111}$$
$$\quad 1 \quad 5 \quad 15$$
$$\quad 1 \quad 5 \quad F$$

$$= 15F_{16}$$

$$101011111_2 = 351_{10} = 537_8 = 15F_{16}$$

5. **Convert the following Octal numbers into Binary numbers. (A) 472 (B) 145 (C) 347 (D) 6247 (E) 645**

Ans. **A) 472_8**

4   7   2
↓   ↓   ↓
100 111 010

2	4		2	7		2	2
2	2 – 0		2	3 – 1		2	1 – 0
	1 – 0			1 – 1			

$472_8 = 100111010_2$

(B)   145

1   4   5
↓   ↓   ↓
1   100 101

2	4		2	5
2	2 – 0		2	2 – 1
	1 – 0			1 – 0

$145_8 = 1100101_2$

(C) 347_8

3   4   7
↓   ↓   ↓
11   100 111

2	3		2	4		2	7
2	1 – 1		2	2 – 0		2	3 – 1
	1 – 0			1 – 0			1 – 1
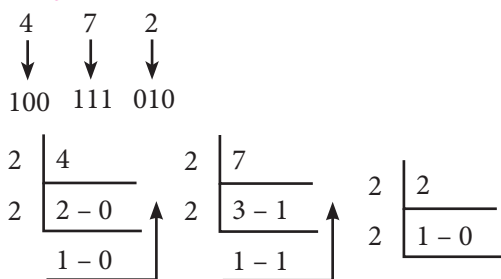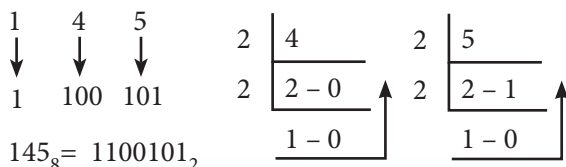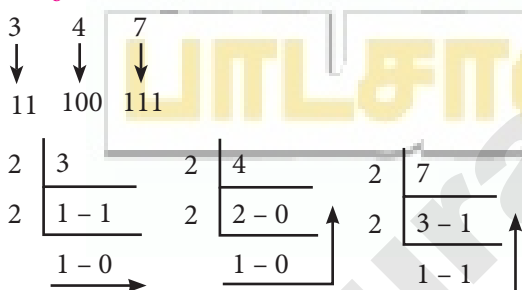
$347_8 = 11100111_2$

(D) 6247_8

6   2   4   7
↓   ↓   ↓   ↓
110 010 100 111

2	6
2	3 – 0
	1 – 1
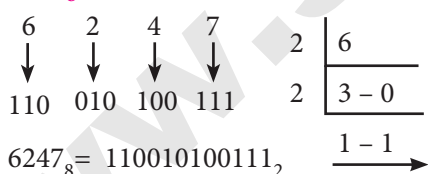
$6247_8 = 110010100111_2$

(E) 645_8

6   4   5
↓   ↓   ↓
110 100 101

$645_8 = 110100101_2$
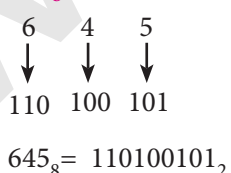
6. **Convert the following Hexadecimal numbers to Binary numbers (A) A6 (B) BE (C) 9BC8 (D) BC9**

Ans. **(A) $A6_{16}$**

A   6
↓   ↓
10   6
↓   ↓
1010   0110

A= 10

$A6_{16} = 10100110_2$

(B) BE_{16}

B   E
↓   ↓
11   14
↓   ↓
1010   1110

B = 11 ; E = 14

$BE_{16} = 10111110_2$

(C) $9BC8_{16}$

9   B   C   8
↓   ↓   ↓   ↓
9   11   12   8
↓   ↓   ↓   ↓
1001   1011   1100   1000

$9BC8_{16} = 1001101111001000_2$

D) $BC9_{16}$

B   C   9
↓   ↓   ↓
11   12   9
↓   ↓   ↓
1011   1100   1001

$BC9_{16} = 101111001001_2$
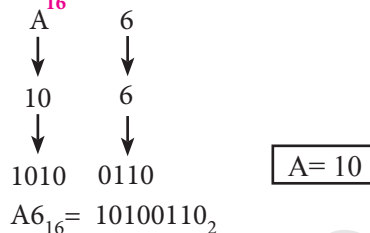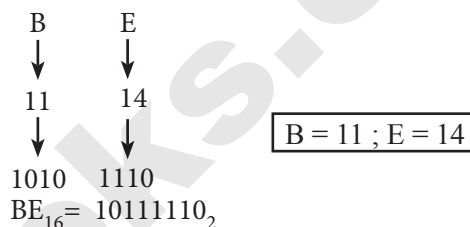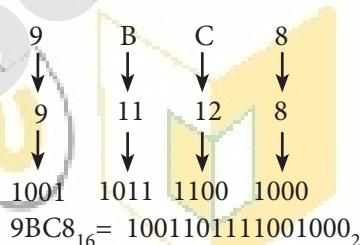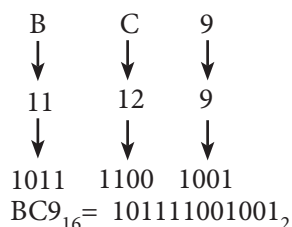
7. **Write the 1's complement number and 2's complement number for the following decimal numbers: (A) 22 (B) −13 (C) −65 (D) − 46**

Ans. **(A)   22**

2	22
2	11 – 0
2	5 – 1
2	2 – 1
	1 – 0
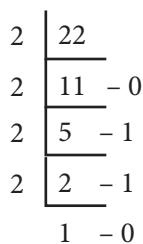
Binary equivalent of + 22   = 10110
8 bit format   = 00010110

(B) -13

$$
\begin{array}{r|l}
2 & 13 \\
\hline
2 & 6 \quad -1 \\
\hline
2 & 3 \quad -0 \\
\hline
& 1 \quad -1
\end{array}
$$

Binary equivalent of + 13	= 1101
8 bit format	= 00001101
1's complement	= 11110010
Add 1 to LSB =	+1
2's complement of −13	= 11110011

(C) -65

$$
\begin{array}{r|l}
2 & 65 \\
\hline
2 & 32 \quad -1 \\
\hline
2 & 16 \quad -1 \\
\hline
2 & 8 \quad -1 \\
\hline
2 & 4 \quad -1 \\
\hline
2 & 2 \quad -0 \\
\hline
2 & 1 \quad -0
\end{array}
$$

Binary equivalent of + 65	= 1000001
8 bit format	= 01000001
1's complement	= 10111110
Add 1 to LSB =	+1
2's complement of −65	= 10111111

(D) -46

$$
\begin{array}{r|l}
2 & 46 \\
\hline
2 & 23 \quad -0 \\
\hline
2 & 11 \quad -1 \\
\hline
2 & 5 \quad -1 \\
\hline
2 & 2 \quad -1 \\
\hline
& 1 \quad -0
\end{array}
$$

Binary equivalent of + 46	= 101110
8 bit format	= 00101110
1's complement	= 1101000
Add 1 to LSB =	+1
2's complement of −46	= 11010010

8. **Perform the following binary computations:**

(A) $10_{10} + 15_{10}$ (B) $-12_{10} + 5_{10}$

(C) $14_{10} - 12_{10}$ (D) $(-2_{10}) - (- 6_{10})$.

Ans. **(A)** $10_{10} + 15_{10}$

Binary equivalent of 10 and 15

10_{10} = 00001010

15_{10} = 00001111

25_{10} = 00011001

(B) $-12_{10} + 5_{10}$

Binary addition of −12 and 5

12_{10}	= 00001100
1's complement	= 11110011
Add 1 to LSB =	+1
2's complement	= 11110100
-12_{10}	= 11110100
5_{10}	= 00000101
-7_{10}	= 11111001

(C) $- 14_{10} + 12_{10} = 14_{10} + (-12)_{10}$

12_{10}	= 00001100
1's complement	= 11110011
2's complement	= 11110100

Binary addition of $14 - 12_{10}$

14_{10}	= 00001110
-12_{10}	= 00001100
2_{10}	= 00000010

(D) $- (2_{10}) - (-6_{10}) = - 2_{10} + 6_{10}$

(-2_{10}) :

8 bits	= 00000010
1's complement	= 11111101
	= +1
2's complement	= 11111110
-2	= 11111110
$+ 6$	= 00000110
$+ 4$	= 100000100

CHAPTER **5**

WORKING WITH WINDOWS OPERATING SYSTEM

CHAPTER SNAPSHOT

EVALUATION

PART - I

CHOOSE THE CORRECT ANSWER.

1. From the options given below, choose the operations managed by the operating system.   *[Sep. 2021]*

   (a) Memory

   (b) Processes

   (c) Disks and I/O devices

   (d) All of the above

   [Ans. (d) All of the above]

2. Which is the default folder for many Windows Applications to save your file?   *[March 2020]*

   (a) My Document

   (b) My Pictures

   (c) Documents and Settings

   (d) My Computer   **[Ans. (a) My Document]**

3. Under which of the following OS, the option Shift + Delete – permanently deletes a file or folder?

   (a) Windows 7   (b) MS-DOS

   (c) Linux   (d) Android OS

   [Ans. (a) Windows 7]

[66]

4. **What is the meaning of "Hibernate" in Windows XP/Windows 7?**

(a) Restart the Computer in safe mode

(b) Restart the Computer in hibernate mode

(c) Shutdown the Computer terminating all the running applications

(d) Shutdown the Computer without closing the running applications

[Ans. (d) Shutdown the Computer without closing the running applications]

5. **The shortcut key used to rename a file in windows.**
[Sep. 2021]

(a) F2   (b) F4   (c) F5   (d) F6

[Ans. (a) F2]

PART - II

VERY SHORT ANSWERS.

1. **What is known as Multitasking?**

Ans. Microsoft windows is one of the most popular graphical user Interface. Multiple applications can execute simultaneously in windows, and this is known as 'Multitasking'.

2. **What are called standard icons?**

Ans. The icons which are available on desktop by default while installing Windows OS are called standard icons. The standard icons available in all Windows OS are My Computer, Documents and Recycle Bin.

3. **Differentiate Files and Folders.**

Ans.

Files	Folders
File is the collection of records.	Folder is a collections of files.
Create a file : Start → All Programs → select application → ok	**Create a folders :** Right click → New → folder → ok

4. **Differentiate Save and save As option.**

Ans. "Save" option save a document in first time. "Save As" option save an already saved the document with a new name and also create a copy of already saved document with a new name obviously.

5. **How will you Rename a File?**

Ans. There are number of ways to rename files or folders. You can rename using the File menu, left mouse button or right mouse button.

PART - III

SHORT ANSWERS.

1. **What are the functions of Windows Operating system?**

Ans. Some of the functions of Windows Operating System are:

(i) Access applications (programs) on the computer (word processing, games, spread sheets, calculators and so on).

(ii) Load any new program on the computer.

(iii) Manage hardware such as printers, scanners, mouse, digital cameras etc.,

(iv) File management activities (For example creating, modifying, saving, deleting files and folders).

(iv) Change computer settings such as colour scheme, screen savers and the resolution of monitor.

2. **Write a note on Recycle bin.** *[Govt. MQP-2018]*

Ans. Recycle bin is a special folder to keep the files or folders deleted by the user, which means you still have an opportunity to recover them. The user cannot access the files or folders available in the Recycle bin without restoring it. To restore file or folder from the Recycle Bin

(i) Open Recycle bin.

(ii) Right click on a file or folder to be restored and select Restore option from the pop-up menu.

(iii) To restore multiple files or folders, select Restore all items.

(iv) To delete all files in the Recycle bin, select Empty the Recycle Bin.

3. **Write a note on the elements of a window.**
[Sep . 2021]

Ans. Elements of a window :

(i) **Title Bar :** The title bar will display the name of the application and the name of the document opened. It will also contain minimize, maximize and close button.

(ii) **Menu Bar :** The menu bar is seen under the title bar. Menus in the menu bar can be accessed by pressing Alt key and the letter that appears underlined in the menu title. Additionally, pressing Alt or F10 brings the focus on the first menu of the menu bar.

(iii) **The Workspace :** The workspace is the area in the document window to enter or type the text of your document.

(iv) **Scroll bars :** The scroll bars are used to scroll the workspace horizontally or vertically.

(v) **Corners and borders :** The corners and borders of the window helps to drag and resize the windows. The mouse pointer changes to a double headed arrow when positioned over a border or a corner. Drag the border or corner in the direction indicated by the double headed arrow to the desired size. The window can be resized by dragging the corners diagonally across the screen.

4. Write the two ways to create a new folder.

Ans. There are two ways in which you can create a new folder :

Method I :

Step 1 : Open Computer Icon.

Step 2 : Open any drive where you want to create a new folder. (For example select D:)

Step 3 : Click on File → New → Folder.

Step 4 : A new folder is created with the default name "New folder".

Step 5 : Type in the folder name and press Enter key.

Method II :

In order to create a folder in the desktop :

Step 1 : In the Desktop, right click → New → Folder.

Step 2 : A Folder appears with the default name "New folder" and it will be highlighted as shown.

Step 3 : Type the name you want and press Enter Key.

Step 4 : The name of the folder will change.

5. Differentiate copy and move.

Ans. Copy is to make a copy of the selected file or folder and place the duplicate in another drive or folder, while move is to move the original files from one place to another location. The move command deletes the original files, while copy retains them.

PART - IV

EXPLAIN IN DETAIL.

1. Explain the versions of Windows Operating System.   *[QY. & HY. 2019]*

Ans.

	Versions	Year	Specific features
1.	Windows 1.x	1985	1. Introduction of GUI in 16 - bit. processor 2. Mouse was introduced as an input device.
2.	Windows 2.x	1987	1. Supports to minimize or maximize windows. 2. Control panel feature was introduced with various system settings and customising options.
3.	Windows 3.x	1992	1. Introduced the concept of multitasking. 2. Supported 256 colours which brought a more modern, colourful look to the interface.
4.	Windows 95	1995	1. Introduced Start button, the taskbar, Windows Explorer and Start menu. 2. Introduced 32 - bit processor and focused more on multitasking.
5.	Windows 98	1998	1. Integration of the Web browser (Internet Explorer) with the Operating System. 2. DOS gaming began to disappear as Windows based games improved. 3. Plug and play feature was introduced.
6.	Windows NT		Designed to act as servers in network.
7.	Windows Me	2000	It introduced automated system diagnostics and recovery tools.
8.	Windows 2000	2000	1. Served as an Operating System for business desktop and laptop systems. 2. Four versions of Windows 2000 were released: Professional (for business desktop and laptop systems), Server (both a Web server and an office server), Advanced Server (for line-of-business applications) and Data Centre Server (for high-traffic computer networks).

9.	Windows XP	2001	1. Introduced 64-bit Processor. 2. Improved Windows appearance with themes and offered a stable version.
10.	Windows Vista	2006	Updated the look and feel of Windows.
11.	Windows 7	2009	Booting time was improved, introduced new user interfaces like Aero Peek, pinning programs to taskbar, handwriting recognition etc. and Internet Explorer 8.
12.	Windows 8	2012	1. Windows 8 is faster than previous versions of Windows. 2. Start button was removed. 3. Windows 8 takes better advantage of multi-core processing, solid state drives (SSD), touch screens and other alternate input methods. 4. Served as common platform for mobile and computer.
13.	Windows 10	2015	1. Start Button was added again. 2. Multiple desktop. 3. Central Notification Center for App notification and quick actions. 4. Cortana voice activated personal assistant.

2. Explain the different ways of finding a file or Folder.

Ans. Finding Files and Folders : You can use the search box on the Start menu to quickly search a particular folder or file in the computer or in a specific drive.

To find a file or folder :

(i) Click the Start button, the search box appears at the bottom of the start menu.

(ii) Type the name of the file or the folder you want to search. Even if you give the part of the file or folder name, it will display the list of files or folders starting with the specified name.

(iii) The files or the folders with the specified names will appear, if you click that file, it will directly open that file or the folder.

(iv) There is another option called "See more results" which appears above the search box.

(v) If you click it, it will lead you to a Search Results dialog box where you can click and open that file or the folder.

Searching Files or folders using Computer icon :

(i) Click Computer Icon from desktop or from Start menu.

(ii) The Computer disk drive screen will appear and at the top right corner of that screen, there is a search box option.

(iii) Type the name of the file or the folder you want to search. Even if you give the part of the file or folder name, it will display the list of files or folders starting with the specified name.

(iv) Just click and open that file or the folder.

3. Write the procedure to create shortcut in Windows OS.

Ans. Creating Shortcuts on the Desktop : Shortcuts to your most often used folders and files may be created and placed on the Desktop to help automate your work.

(i) Select the file or folder that you wish to have as a shortcut on the Desktop.

(ii) Right click on the file or folder.

(iii) Select Send to from the shortcut menu, then select Desktop (create shortcut) from the sub-menu.

(iv) A shortcut for the file or folder will now appear on your desktop and you can open it from the desktop in the same way as any other icon.

GOVERNMENT EXAM QUESTIONS AND ANSWERS

1 MARK

1. Plug and play feature was introduced in which version of Windows *[Govt.MQP-2018]*
(a) Windows 98　　(b) Windows 95
(c) Windows NT　　(d) Windows me
[Ans. (a) Windows 98]

2. En, Fr, Ku are *[Govt.MQP-2018]*
(a) Data entry settings
(b) Message entry settings
(c) Keyboard layouts
(d) Desktop settings
[Ans. (c) Keyboard layouts]

CHAPTER **11**

HTML - FORMATTING TEXT, CREATING TABLES, LIST AND LINKS

CHAPTER SNAPSHOT

EVALUATION

PART - I

CHOOSE THE CORRECT ANSWER.

1. Which of the following tags are called as physical style tags? *[March 2020]*
(a) <html>, <b>,
     (b) <b>, <br>, <u>
(c) <A>, <b>, <i>   (d) <b>, <i>, <u>
[Ans. (d) <b>, <i>, <u>]

2. Which feature is used to call attention to the reader? *[March 2019]*
(a) Highlight   (b) Bold
(c) Italics   (d) Underline
[Ans. (a) Highlight]

3. The tags <sub> and <sup> used for : *[Sep. 2020]*
(a) Subject and Super
(b) Subscript and Super
(c) Subject and Superscript
(d) Subscript and Superscript
[Ans. (d) Subscript and Superscript]

4. A named set of certain style of character and number is:
(a) Style   (b) Character
(c) Font   (d) List
[Ans. (c) Font]

5. Pick odd one from the list: *[Sep. 2021]*
(a) <tr>   (b) <th>
(c) <dh>   (d) <td>
[Ans. (c) <dh>]

6. Match the following:
(a) tfoot   -   (1) Order list
(b) start   -   (2) Hyperlink
(c) href   -   (3) Highlight
(d) mark   -   (4) Table

	(a)	(b)	(c)	(d)
(a)	4	1	2	3
(b)	1	4	3	2
(c)	4	3	2	1
(d)	1	2	4	3

[Ans. (a) 4,1,2,3]

7. Definition list has how many parts? *[June 2019]*
(a) 5   (b) 4
(c) 3   (d) 2   **[Ans. (d) 2]**

8. A list block can be defined inside another list is:
(a) Inner List   (b) Nested List
(c) Outer List   (d) Listing List
[Ans. (b) Nested List]

9. Read the following statement and choose the correct statement(s):
I) Link in HTML is used to create hyperlinks to web content.
II) HREF is abbreviated as Hypertext Markup File
(a) I is correct   (b) II is correct
(c) I and II is correct   (d) Both are wrong
[Ans. (a) I is correct]

10. To create internal link, which of the following attribute should be used?
(a) link   (b) name
(c) local   (d) Inter
[Ans. (b) name]

PART - II

VERY SHORT ANSWERS.

1. Write a short note on (i) <strong> (ii) <em>
[June 2019; March 2020]

Ans. **(i)** **<strong> Important text :** The <strong> tag is a phrase tag. It is used to define important text. This tag displays the text as bold.

(ii) **<em> Exphasized text :** The <em> tag is used to emphasize the text. That means, when this tag used the text will be in italics.

2. What is the use of <mark> tag? *[HY. 2019]*

Ans. The <mark> tag is used to highlight the text in HTML. This is also a container tag. Highlighting is an important formatting feature is used to call attention to the reader.

3. Write the following equation as HTML notation:
$Pd = 25 - Q^2$

Ans. Pd = 25 − Q²

4. Write about any two attributes of font tag.

Ans. (i) Face : The face is an attribute to set different font style. The name of a font has multiple words it should be specified within double quote.

  (ii) Size : The size attribute is used to set size of the text. The size can have an absolute value from 1 to 7. These predefined sizes are known as virtual size. Each virtual size is successively 20% larger than the previous one.

5. What is thematic break?

Ans. The <hr> (Horizontal Rules) tag, which is known as "Thematic Breaks" separate sections of an HTML document visually. It produces a horizontal line spread across the width of the browser. This is an empty tag, which means the tag has no closing tag.

6. What is pixel?   **[HY. 2019]**

Ans. Thickness of the horizontal line can be changed with size attribute. The size is given in terms of pixels. A pixel is one of the tiny dots that make up the display on computer. General, 72 pixels equal to an inch. Pixel is usually referred as points.

7. What are the types of list in HTML? **[Mar. 2019]**

Ans. HTML supports three types of lists viz. numbered, unnumbered and definition, These lists are called as Ordered List, Unordered List and Definition List respectively.

8. How will you define numbered list?

Ans. Numbered list is defined within the tag pair <OL>...</OL>tag. It is also called ordered list. It display items in a numberical or alphabetical order.

Part - III

Short Answers.

1. Write an HTML code to display the following text in exactly the same way as given below.
  I am studying Computer Science Application.

Ans. <html><head><title> Html</title></head>
  <body>
  I am studying Computer Science Application.
  </body></html>

2. Briefly explain the attributes of <hr>tag.

             [Sep. 2021]

Ans. The <hr>tag having four attributes viz., size, width, noshade and color. These attributes are used to set size, width, 3D appearance and color to the horizontal line respectively.

The general syntax of <hr> tag with attributes:
  <hr size = value width=value noshade, color = color_name/code>

(i) Size: Thickness of the horizontal line can be changed with size attribute.

(ii) Width: The width attribute specifies the horizontal width of the line

(iii) Noshade: The default view of a horizontal rule line is 3D. So, no need to specify the term "noshade" as an attribute with <hr> tag. If you specify the attribute "noshade" turn off 3D view, turns on 2D view.

**(iv) **The color attribute is used to change is default color to desired color.

3. What are the core tags used to create table in HTML?

Ans. There are five core tags are used to create a table in HTML. They are

 (i) <table> tag is used to create a table

 (ii) <tr> tag defines table rows

 (iii) <th> tag defined table columns

 (iv) <td> tag is used to specify the data in a cell

 (v) <caption> tag defines title for the table.

4. Write an HTML code to provide hyperlink to https://www.w3schools.com

Ans. <html><head><title> hyperlink </title></head>
  <body>
   w3schools

  </body></html>

5. Difference between <UL> and <OL> tags.

Ans.

<UL>	<OL>
It is used to create unordered list	It is used to create ordered list
It displays items in a numerical or alphabetical order	It displays items prefixed with a special bullet symbol
It has a type value Standard Arabic numerals, lower case letters, upper case letters, lower case Roman Numerals, Upper case Roman numerals	It has a type value Disc, Square, Circle

CHAPTER 18 — TAMIL COMPUTING

CHAPTER SNAPSHOT

EVALUATION

VERY SHORT ANSWERS.

1. List the search engines supported by Tamil language. *[March 2020]*

Ans. **(i)** Google   **(ii)** Bing
(iii) yahoo.

2. What are the keyboard layouts used in Android?

Ans. Sellinam and Ponmadal – are familiar Tamil keyboard layouts that works on Android operating system in Smart phone using phonetics.

3. Write a short note about Tamil Programming Language.

Ans. Programming languages to develop software to computers and smart phones are available only in English. Now, efforts are taken to develop programming languages in Tamil. Basedon Python programming language,the first Tamil programming language "Ezhil" (எழில்) is designed. With the help of this programming language, you can write simple programs in Tamil.

[223]

4.   What is TSCII?   *[March 2020]*

Ans. TSCII (Tamil Script Code for Information Interchange) is the first coding system to handle our Tamil language in an analysis of an encoding scheme that is easily handled in electronic devices, including non-English computers. This encoding scheme was registered in lANA (Internet Assigned Numbers Authority) unit of ICANN.

5.   Write a short note on Tamil Virtual Academy.

Ans. With the objectives of spreading Tamil to the entire world through internet, Tamil Virtual University was established on 17th February 2001 by the Govt. of Tamilnadu. Now, this organisation functioning with the name "Tamil VIrtual Academy': This organisation offers different courses regarding Tamil language, Culture, heritage etc., from kindergarten to under graduation level.

Government Exam Questions and Answers

1 Mark

1.   Getting Government services through internet is known as _____.   *[HY. 2019]*

(a) e-filling   (b) e-payment

(c) e-governance   (d) e-shopping   **[Ans. (c) e-governance]**

2.   _____ is a Tamil translation application.   *[Sep. 2021]*

(a) Lippikar   (b) Thamizpori

(c) Azhagi   (d) Ezhil   **[Ans. (b) Thamizpori]**

2 Marks

1.   What are the familiar keyboard used for Tamil typing?   *[HY. 2019]*

Ans. **(i)**   NHM Writer, E-Kalappai and Lippikar - are familiar Tamil keyboard interfaces software that is used for Tamil typing which works on Tamil Unicode, using phonetics.

(ii)   Sellinam and Ponmadal - are familiar Tamil Keyboard layouts that works on Android operating system in smart phone using phonetics.

2.   Write a note on Unicode.   *[Sep. 2020]*

Ans. Unicode is an encoding system, designed to handle various world languages, including Tamil. Its first version 1.0.0 was introduced on October 1991. While introduction of this scheme, can be able to handle nearly 23 languages including Tamil. Among the various encoding scheme, Unicode is the suitable to handle Tamil.

Additional questions and Answers

Choose the Correct Answers.   **1 MARK**

I.   Choose the Correct options for the below Questions.

1.   Which of the following plays a vital role in ever man's life?

(a) Mobile   (b) Computer

(c) Internet   (d) Laptop   **[Ans. (c) Internet]**

2. **Which of the following is the best information technological device?**
    (a) Computer   (b) Internet
    (c) Mobile   (d) Notebook Computer
    [Ans. (b) Internet]

3. **How many percentage of people using Internet is Tamil?**
    (a) 40%   (b) 43%
    (c) 50%   (d) 42%   **[Ans. (d) 42%)]**

4. **In India, Which is the most widely language in Internet?**
    (a) Tamil   (b) Hindi
    (c) Kannada   (d) Malayalam
    [Ans. (a) Tamil]

5. **How many percentage of Internet users consider local language digital content to be more reliable than english?**
    (a) 42%   (b) 52%
    (c) 68%   (d) 48%   **[Ans. (c) 68%]**

6. **Which year onwards, 74% if people in India will access Internet using Tamil?**
    (a) 2019   (b) 2021
    (c) 2023   (d) 2030   **[Ans. (b) 2021]**

7. **Which of the following are used to search any information from the cyberspace?**
    (a) Operating System   (b) Compiler
    (c) Search engines   (d) Web clients
    [Ans. (c) Search engines]

8. **Which of the following provide searching facilities in Tamil?**
    (a) Google   (b) Bing
    (c) Safari   (d) Both a and b
    [Ans. (d) Both a and b]

9. **Which of the following is not provide searching facilities in Tamil?**
    (a) Yahoo   (b) Safari   (c) Bing   (d) Google
    [Ans. (b) Safari]

10. **Which of the following search engine gives Tamil virtual keyboard?**
    (a) Bing   (b) Yahoo   (c) Safari   (d) Google
    [Ans. (d) Google]

11. **Which country provides all their services through the official website in Tamil?**
    (a) Srilanka   (b) America
    (c) Singapore   (d) Malaysia
    [Ans. (a) Srilanka]

12. **Which of the following are portal or website of books collection?**
    (a) E-Papers   (b) E-Commere
    (c) E-languages   (d) E-libraries
    [Ans. (d) E-libraries]

13. **Which of the following is not a familiar Tamil keyboard interfaces software?**
    (a) NHM Writer   (b) Ponmadal
    (c) E-Kalappai   (d) Lippikar
    [Ans. (b) Ponmadal]

14. **In white OS, Sellinam Tamil keyboard layout works?**
    (a) windows   (b) linux
    (c) Android   (d) iOS
    [Ans. (c) Android]

15. **Which of the following Tamil keyboard layout not used by Android OS?**
    (a) NHM Wirter   (b) E-Kalappai
    (c) Lippikar   (d) All of these
    [Ans. (d) All of these]

16. **Which of the following application have more than 30000 Tamil words equivalent to English words?**
    (a) Kamban   (b) Thamizpori
    (c) Vani   (d) Ponmozhi
    [Ans. (b) Thamizpori]

17. **Which of the following language used to design "Ezhil"? Tamil programming language?**
    (a) C   (b) C++   (c) Java   (d) Python
    [Ans. (d) Python]

18. **Which of the following coding systems specially designed for Indian languages?**
    (a) ASCII   (b) TSCII
    (c) ISCII   (d) EBCDIC
    [Ans. (c) ISCII]

19. Which encoding scheme is suitable to handle Tamil?

(a) ASCII   (b) ISCII

(c) Unicode   (d) BCD

[Ans. (c) Unicode]

20. In India, 42% of users mostly used language in india?

(a) Tamil   (b) Kannada

(c) Malayalam   (d) Telugu

[Ans. (a) Tamil]

II. Choose and Fill in the Blanks.

1. The first programming language "Ezhil" is designed by _____.

(a) C++   (b) Java

(c) Python   (d) Visual Basic

[Ans. (c) Python]

2. The ASCII encoding system is applicable only for handling the language _____.

(a) English   (b) Hindi

(c) Tamil   (d) All of these

[Ans. (a) English]

3. The first version of Unicode is _____.

(a) 1.0.0   (b) 1.0.1

(c) 0.0.1   (d) 0.1.1   **[Ans. (a) 1.0.0]**

4. The first version of Unicode introduced in the year _____.

(a) 1990   (b) 1998

(c) 1991   (d) 1981   **[Ans. (c) 1991]**

5. The first Tamil programming language is _____.

[Sep. 2020]

(a) Ezhil   (b) Kuzhal

(c) Thamizpori   (d) kamban

[Ans. (a) Ezhil]

Very Short Answers.   2 MARKS

1. What is e-governance?

Ans. Getting Government services through internet is known as e-Governance. Govt. of Tamilnadu has been giving its services through Internet.

2. What is the use of e-libraries?

Ans. E-Libraries are portal or website of collection of e-books. Tamil e-Library services provide thousands of Tamil Books as e-books mostly at free of cost. It is the most useful service to Tamil people who live far away from their home land.

3. What is the use of Tamil interfaces software?

Ans. Tamil interface software .is the familiar one among the different methods of typing. This is the simplest method of typing Tamil in both Computer and Smart phones.

4. List some Tamil Automation softwares.

Ans. Tamil Libra Office, Tamil Open Office, Azhagi Unicode Editor, Ponmozhi, Menthamiz, Kamban, Vani are office automation software working exclusively for Tamil.

5. Write a short note on "Thamizpori".

Ans. Thamizpori (தமிழ்பொறி) is a Tamil translation application having more than 30000 Tamil words equalent to English words. Using this application. we can transalte small English sentences into Tamil.

6. Expand

(i) TSCII (ii) ISCII   (iii) ASCII

Ans. (i) Tamil Script Code for Information Interchange

(ii) Indian Script Code for Information Interchange

(iii) American Standard Code for Information Interchange.

7. Write a short note on Madurai project.

Ans. Project Madurai is an open and voluntary initiative to collect and publish free electronic editions of ancient tamil literary classics. This means either typing-in or scanning old books and archiving the text in one of the most readily accessible formats for use on all popular computer platforms.

☆ ☆ ☆

11th STD

GOVT. SUPPLEMENTARY EXAM - SEPT. 2021
(With Answers)

PART - III

COMPUTER APPLICATIONS

Time Allowed : 3.00 hours] [Maximum Marks : 70

Instructions: (1) Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.

(2) Use **Blue** or **Black** ink to write and underline and pencil to draw diagrams.

Part- I

Note : (i)   **All questions are compulsory.**

(ii) **Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.**

(15 × 1 = 15)

1. Which generation of computer used ICs?
   (a) Third   (b) First
   (c) Fourth   (d) Second

2. Commercial programs made available to the public illegally are known as :
   (a) free software   (b) freeware
   (c) software   (d) warez

3. From the options given below, choose the operations managed by the operating system.
   (a) Process   (b) I/O Devices
   (c) Memory   (d) All of the above

4. The shortcut key used to rename a file in windows:
   (a) F5   (b) F2   (c) F6   (d) F4

5. Which is displayed at the top part of the window?
   (a) Title bar   (b) Menu bar
   (c) Format bar   (d) Tool bar

6. In which menu the Find and Replace option is available?
   (a) Format (b) File   (c) Tools   (d) Edit

7. Which of the following applications was the parent to OpenOffice Calc?
   (a) Lotus 123   (b) VisiCalc
   (c) StarOffice Calc   (d) LibreCalc

8. Which is the shortcut key to view the slide show?
   (a) F5   (b) F6
   (c) F10   (d) F8

9. HTML is acronym for _____.
   (a) Hyper Transfer Makeup Language
   (b) Hyper Transfer Markup Language
   (c) Hyper Text Makeup Language
   (d) Hyper Text Markup Language

10. Pick odd one from the list:
    (a) <dh>   (b) <tr>   (c) <td>   (d) <th>

11. Inline sound can be inserted using which of the following tag?
    (a) <bgsound>   (b) <inline>
    (c) <sound>   (d) <background sound>

12. The Declaration block of CSS is surrounded by :
    (a) { }   (b) ( )   (c) < >   (d) [ ]

13. Which of the following is not a looping statement?
    (a) Do-while   (b) Switch
    (c) For   (d) While

14. Which of the following operating systems support Mobile Devices?
    (a) BOSS   (b) Windows 7
    (c) iOS   (d) Linux

15. _____ is a Tamil translation application.
    (a) Lippikar   (b) Thamizpori
    (c) Azhagi   (d) Ezhil

Part - II

Note : Answer any 6 questions. Question No. 24 is compulsory.   **(6 × 2 = 12)**

16. Which source is used to erase the content of a EPROM?
17. What is a GUI?
18. How do you insert pictures into your document?
19. What is an auto text in writer?
20. What is a cell pointer?
21. What is the purpose of <input> tag?
22. Write down general format of CSS declaration.
23. Write a note on Library functions.
24. Convert $(65)_{10}$ into its equivalent binary number.

PART - III

Note : Answer any 6 questions. Question No. 33 is compulsory.   **(6 × 3 = 18)**

25. Name the three output devices. Explain any one of them.
26. Write a note on the elements of a window.
27. What is the difference between moving and copying text?
28. What are the different ways to save a document?
29. Differentiate website and webpage.
30. Explain the attributes of <hr> tag.
31. Explain the attributes of <select> and <option> tags.
32. Write note on string operator.
33. Write the syntax for 'if' statement.

PART - IV

Note : Answer all questions.   **(5 × 5 = 25)**

34. (a) Explain the types of ROM.
    (OR)
    (b) Explain the various heading level tags in HTML.
35. (a) Discuss the various generations of computers.
    (OR)
    (b) Explain any five types of internet services.
36. (a) (i) What is an User Interface?
        (ii) List out the points to be noted while creating a user interface for an operating system.
    (OR)
    (b) Explain the types of list with suitable HTML code.
37. (a) Write the steps to Find and Replace a word with another word in OpenOffice Writer.
    (OR)
    (b) 'Explain about the pop up dialog boxes in Javascript.
38. (a) Write the steps to generate the following series 5, 10, 20, ... 2560.
    (OR)
    (b) Explain Switch Case statement with example.

❖❖❖

Answer

PART - I

1. (a) Third
2. (d) warez
3. (d) All of the above
4. (b) F2
5. (a) Title bar
6. (d) Edit
7. (c) StarOffice Calc
8. (a) F5
9. (d) Hyper Text Markup Language
10. (a) <dh>
11. (a) <bgsound>
12. (a) { }
13. (b) Switch
14. (c) iOS15.
    (b) Thamizpori

PART - II

16. Ultra-violet-rays is used to erase the content of a EPROM.

17. The GUI is a window based system with a pointing device to direct I/O, choose from menus, make selections and a keyboard to enter text. Its vibrant colours attract the user very easily.

18. Openoffice writer has the ability to insert and edit images in a more simply way.
    (i) Place the insertion pointer where you want the image to appear
    (ii) Select Insert → Picture → From file
    (iii) The insert picture dialog box appears where the picture gallery opens from which the desired picture can be selected.
    (iv) If the picture is not in the gallery, then browse the pictures from the folder, choose the desired picture.
    (vi) Click on the Open button.
    (vii) The selected picture is inserted into the document.

19. AutoText allows you to assign text, tables, graphics and other items to a key or key combination. For example, rather than typing "TamilNadu" every time you use that phrase, you might just type "tn" and press F3.

20. Cell pointer is a rectangle element which can be moved around the worksheet. The cell in which the cell pointer is currently located is known as "Active cell".

21. The purpose of <input> tag is to form controls, form controls are created by using <input> tag. The <input> is an empty tag used to create different form elements or controls such as text box, radio buttons so on.

22.

Selector	Declaration
HTML Tag	{Properties: Values;}

23. Pre-defined functions are already defined in the JavaScript library which are also called Library functions. For example isNaN(), toUpperCase(), toLowerCase(), length(), alert(), prompt(), write() etc., are pre-defined functions.