Class VII

Answer key for Class VII Ch-1 Practice zone (HW-3)

Operating System	Utility Software	General Purpose Application Software	Specific Purpose Application Software	Language Processor
Android	Disk Cleanup	PowerPoint 2013	Billing system	Assembler
Mac OS	Antivirus Software	Adobe Photoshop	Library Management System	Compiler
Linux	Data Compression Software	QuarkXPress	Ticket Management System	Interpreter
		Access 2013		

Answer key for Class VII Ch-1 Assessment zone (HW-4)

A. 1 -> b 2 -> b 3 -> d 4 -> c

B. 1. Operating system 2. Proprietary 3. Petabyte, zettabyte 4. Utility 5. Open-Source

C. 1. Disk Cleanup 2. Access 3. IOS 4. Antivirus 5. Adobe InDesign 6. PowerPoint

D. 1. False 2. False 3. True 4. True 5. False

E. Convert the following Decimal numbers to their equivalent binary form.

1) 126 ⟶

2	126	
2	63	**0**
2	31	**1**
2	15	**1**
2	7	**1**
2	3	**1**
2	1	**1**
	0	**1**

LSB ↑ **MSB**

$\therefore (126)_{10} \Rightarrow (1111110)_2$

2) 76 ⟶

2	76	
2	38	**0**
2	19	**0**
2	9	**1**
2	4	**1**
2	2	**0**
2	1	**1**
	0	**1**

LSB ↑ **MSB**

$\therefore (76)_{10} \Rightarrow (1101111)_2$

3) 172 ⟶

2	172	
2	86	**0**
2	43	**0**
2	21	**1**
2	10	**1**
2	5	**0**
2	2	**1**
2	1	**0**
	0	**1**

LSB ↑ **MSB**

$\therefore (172)_{10} \Rightarrow (10101100)_2$

4) 512 ⟶

2	512		
2	256	**0**	**LSB**
2	128	**0**	
2	64	**0**	
2	32	**0**	
2	16	**0**	
2	8	**0**	
2	4	**0**	
2	2	**0**	
2	1	**0**	
	0	**1**	**MSB**

$\therefore$ **$(512)_{10} \Rightarrow (1000000000)_2$**

F. Convert the following Binary numbers to their equivalent Decimal form.

1) $(111110)_2$
$\Rightarrow 1^5\ 1^4\ 1^3\ 1^2\ 1^1\ 0^0$
$\Rightarrow 1X2^5 + 1X2^4 + 1X2^3 + 1X2^2 + 1X2^1 + 0X2^0$
$\Rightarrow (1X2X2X2X2X2) + (1X2X2X2X2) + (1X2X2X2) + (1X2X2) + (1X2) + (0X1)$
$\Rightarrow 32 + 16 + 8 + 4 + 2 + 0$
$\Rightarrow 62$
$\therefore$ **$(111110)_2 \Rightarrow (62)_{10}$**

2) $(110001)_2$
$\Rightarrow 1^5\ 1^4\ 0^3\ 0^2\ 0^1\ 1^0$
$\Rightarrow 1X2^5 + 1X2^4 + 0X2^3 + 0X2^2 + 0X2^1 + 1X2^0$
$\Rightarrow (1X2X2X2X2X2) + (1X2X2X2X2) + (0X2X2X2) + (0X2X2) + (0X2) + (1X1)$
$\Rightarrow 32 + 16 + 0 + 0 + 0 + 1$
$\Rightarrow 49$
$\therefore$ **$(110001)_2 \Rightarrow (49)_{10}$**

3) $(1010011)_2$
$\Rightarrow 1^6\ 0^5\ 1^4\ 0^3\ 0^2\ 1^1\ 1^0$
$\Rightarrow (1X2X2X2X2X2X2) + (0X2X2X2X2X2) + (1X2X2X2X2) + (0X2X2X2) + (0X2X2) + (1X2) + (1X1)$
$\Rightarrow 64 + 0 + 16 + 0 + 0 + 2 + 1$
$\Rightarrow 83$
$\therefore$ **$(1010011)_2 \Rightarrow (83)_{10}$**

4) $(11101011)_2$
$\Rightarrow 1^7\ 1^6\ 1^5\ 0^4\ 1^3\ 0^2\ 1^1\ 1^0$
$\Rightarrow (1X2X2X2X2X2X2X2) + (1X2X2X2X2X2X2) + (1X2X2X2X2X2) + (0X2X2X2X2) + (1X2X2X2) + (0X2X2) + (1X2) + (1X1)$
$\Rightarrow 128 + 64 + 32 + 0 + 8 + 0 + 2 + 1$
$\Rightarrow 235$
$\therefore$ **$(11101011)_2 \Rightarrow (235)_{10}$**

- **MATCH THE ANSWERS WITH YOURS AND CORRECT IN YOUR COPY**.