0478 and 0984(9-1) COMPUTER SCIENCE TOPIC MARK SCHEMES SET-4 SMART EXAM RESOURCES

Unit 1.1 Number Systems

MARKS SCHEME

ANSWER 1(a)

Dne mark per each correct row:			
Denary	Binary Conversion	Correct (✓)	Incorrect (√)
145	10010001	~	
179	10110101		~
11	00010011		~
100	01100010		~

ANSWER 1(b)

- C
- 4
- 0

ANSWER 2 (i)

- 000000100111 1 mark 1 mark	2	

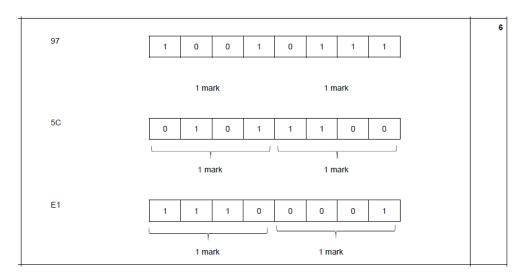
ANSWER 2 (ii)

<u>.</u>	
- 000101011110 1 mark 1 mark	2

ANSWER 2 (iii)

1 mark for working, 1 mark for correct answer - 1024 + 512 + 128 + 64 + 4 + 2 + 1	2	
- 1735		

ANSWER 3 (a)



3

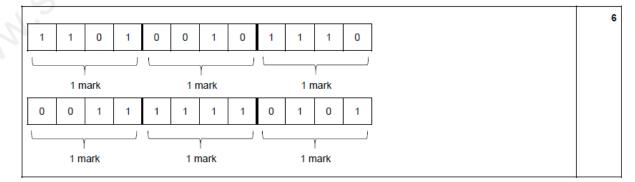
Unit 1.1 Number Systems

ANSWER 3 (b)

Two from e.g.:	Two	from	e.g.:
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- Colour codes // Colour in HTML / CSS
- Error messages
- Locations in memory
- Memory dump // debugging
- IP address
 ASCII // Unicode
- Assembly language
- URL
- 014

ANSWER 4



ANSWER 5 (a)

One mark for each correct denary value		
Binary	Denary	
0001001110	78	
0110110111	439	
100000001	513	

ANSWER 5 (b)

Two from:		2
	Uses fewer characters // shorter	
	Easier to read / write / understand	
	Less likely to make mistakes // less error prone	
	Easier to debug	
+		

ANSWER 5 (c)

One mark for each correct hexadecimal value in correct order 2 B 5	3		
ANSWER 6 (a) 52	1		
ANSWER 6 (b)			
	1		
ANSWER 6 (c) It is multiplied by 4			

2