[redacted]

Started on
State
Completed on
Time taken
Marks
Grade
Feedback

You are a highly motivated student, who takes full responsibility for your learning. A reflective learner, who recognises areas for development and is committed to personal improvement. An organised learner who always completes class work and homework to a very high standard.

Question **1**

Correct

Mark 2.00 out of 2.00

Compute the following octal addition: 746.12+134.25

Answer: 1102.37 ✔

The correct answer is: 1102.37

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:27	Saved: 1102.37	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**2.00**

Question **2**

Complete

Not graded

What is the minimum number of bits required to represent the hexadecimal number **7E6** (write your answer in binary)? (Enter **only the number** as your answer i.e. don't add units)

Answer: 4

The correct answer is: 1011

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:29	Saved: 16 bits	Incomplete answer	
3	20/03/23, 15:29	Saved: 16	Answer saved	
4	20/03/23, 15:55	Saved: 4	Answer saved	
5	**20/03/23, 15:56**	**Attempt finished**	**Complete**	**0.00**

Question **3**

Correct

Mark 1.00 out of 1.00

Which number system makes use of digits 0-9 and letters A-R to represent a number?

a. Base-26

b. Base-27

c. Such number system does not exist.

d. Base-28 ✔

Your answer is correct.

The correct answer is:
Base-28

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:31	Saved: Base-28	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**1.00**

Question **4**

Correct

Mark 2.00 out of 2.00

Compute the following binary subtraction:

110010.1011 - 101.1

Answer: 101101.0011 ✔

The correct answer is: 101101.0011

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:32	Saved: 101101.0011	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**2.00**

Question **5**

Correct

Mark 3.00 out of 3.00

Convert the hexadecimal number **12B.A** to binary.

Answer: 100101011.101 ✔

The correct answer is: 100101011.101

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:39	Saved: 101111011.100111001	Answer saved	
3	20/03/23, 15:46	Saved: 100101011.101	Answer saved	
4	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**3.00**

Question **6**

Correct

Mark 1.00 out of 1.00

How are bases 8 and 2 related, and what does that tell us about the conversion between either bases?

Select one:

- A. 8 is a power of 2. And so base 8 digits can be read off in binary but base 2 digits can't be read off in octal.
- B. 2 is a power of 8. And so three base 2 digits can be read off in octal and base 8 digits can be read off in binary.
- C. 8 is a power of 2. And so base 8 digits can be read off in binary and three base 2 digits can be read off in octal. ✔
- D. 2 is a power of 8. And so base 2 digits cannot be read off in octal nor can base 8 digits be read off in binary.
- E. 2 is a power of 8. And so base 2 digits can be read off in octal but base 8 digits cannot be read off in binary

Your answer is correct.

The correct answer is:
8 is a power of 2. And so base 8 digits can be read off in binary and three base 2 digits can be read off in octal.

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:40	Saved: 8 is a power of 2. And so base 8 digits can be read off in binary and three base 2 digits can be read off in octal.	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**1.00**

Question **7**

Correct

Mark 3.00 out of 3.00

Convert the following Base-30 number to its Hexadecimal equivalent:

$(RB18.F)_{30}$

Answer: B467A.8 ✔

The correct answer is: B467A.8

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:44	Saved: B467A.8	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**3.00**

Question **8**

Correct

Mark 3.00 out of 3.00

Express the base-3 fraction 211.211 as a fraction in base-10.

Provide your answer in radix point form (e.g. 6.32).

Round off two decimal places.

Answer: 22.81 ✔

The correct answer is: 22.81

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:48	Saved: 22.81	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**3.00**

Question **9**

Correct

Mark 3.00 out of 3.00

Convert the octal number 135 to hexadecimal.

Answer: 5D ✔

The correct answer is: 5D

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:50	Saved: 5D	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**3.00**

Question **10**

Correct

Mark 2.00 out of 2.00

Convert the base-4 number 1232 to binary.

Answer: 1101110 ✔

The correct answer is: 1101110

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:53	Saved: 1101110	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**2.00**

Question **11**

Correct

Mark 2.00 out of 2.00

How many different objects can be represented in computer memory using 8 bits?

Answer: 256 ✔

The correct answer is: 256

Response history

Step	Time	Action	State	Marks
1	20/03/23, 15:25	Started	Not yet answered	
2	20/03/23, 15:54	Saved: 256	Answer saved	
3	**20/03/23, 15:56**	**Attempt finished**	**Correct**	**2.00**

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