**137184 Luwate Inda**

**Question 1**

**a)**

Decimal Binary Hexadecimal

0 0000 0

1 0001 1

2 0010 2

3 0011 3

4 0100 4

5 0101 5

6 0110 6

7 0111 7

8 1000 8

9 1001 9

10 1010 A

11 1011 B

12 1100 C

13 1101 D

14 1110 E

15 1111 F

16 0001 0000 10

17 0001 0001 11

18 0001 0010 12

31 0001 1111 1F

100 0110 0100 64

255 1111 1111 FF

256 0001 0000 0000 100

**b)**

Decimal Number Binary Conversion Remarks

12.991 1100.1111 Approximate

52.43 110100.0110 Approximate

45.054 101101.0000 Approximate

67.403 1000011.0110 Approximate

51.207 110011.0011 Approximate

25.29 11001.0100 Approximate

48.343 110000.0101 Approximate

57.75 111001.11 Exactly

1.575 1.1001 Approximate

48.5 110000.1 Exactly

45.692 101101.1011 Approximate

59.253 111011.0100 Approximate

60.007 111100.0000 Approximate

63.687 111111.1010 Approximate

30.574 11110.1001 Approximate

86.533 1010110.1000 Approximate

51.887 110011.1110 Approximate

55.47 110111.0111 Approximate

96.981 1100000.1111 Approximate

13.098 1101.0001 Approximate

82.988 1010010.1111 Approximate

27.321 11011.0101 Approximate

17.779 10001.1100 Approximate

43.089 101011.0001 Approximate

73.058 1001001.0000 Approximate

62.277 111110.0100 Approximate

57.524 111001.1000 Approximate

36.652 100100.1010 Approximate

79.209 1001111.0011 Approximate

40.233 101000.0011 Approximate

84.371 1010100.0101 Approximate

20.075 10100.0001 Approximate

38.26 100110.0100 Approximate

40.684 101000.1010 Approximate

94.241 1011110.0011 Approximate

58.049 111010.0000 Approximate

57.25 111001.01 Exactly

20.027 10100.0000 Approximate

37.068 100101.0001 Approximate

64.708 1000000.1011 Approximate

59.559 111011.1000 Approximate

15.915 1111.1110 Approximate

39.725 100111.1011 Approximate

82.563 1010010.1001 Approximate

50.461 110010.0111 Approximate

97.662 1100001.1010 Approximate

53.163 110101.0010 Approximate

63.985 111111.1111 Approximate

0.359 0000.0101 Approximate

51.322 110011.0101 Approximate