Binary Numbers : Tutorial Sheet C

1. Express the following decimal numbers as binary numbers.

   a) $(73)_{10}$ b) $(15)_{10}$ c) $(22)_{10}$

2. Perform the following binary multiplications.

   a) $(1001)_2 \times (1000)_2$
   b) $(101)_2 \times (1101)_2$
   c) $(111)_2 \times (1111)_2$
   d) $(10000)_2 \times (11001)_2$

3. Perform the following binary multiplications.

   a) $(1001000)_2 \div (1000)_2$
   b) $(101101)_2 \div (1001)_2$
   c) $(1001011000)_2 \div (101000)_2$
   d) $(1100000)_2 \div (10000)_2$

4. Perform the following binary multiplications.

   a) $(1001000)_2 \div (1000)_2$
   b) $(101101)_2 \div (1001)_2$
   c) $(1001011000)_2 \div (101000)_2$
   d) $(1100000)_2 \div (10000)_2$

5. Which of the following binary numbers is the result of this binary division: $(1001110)_2 \times (1101)_2$.

   a) $(11000)_2$
   b) $(11001)_2$
   c) $(10101)_2$
   d) $(11011)_2$

6. Perform the following binary multiplications.

   a) $(1001000)_2 \div (1000)_2$
   b) $(101101)_2 \div (1001)_2$
   c) $(1001011000)_2 \div (101000)_2$
   d) $(1100000)_2 \div (10000)_2$

7. Which of the following binary numbers is the result of this binary division: $(1001110)_2 \times (1101)_2$.

   a) $(11000)_2$
   b) $(11001)_2$
   c) $(10101)_2$
   d) $(11011)_2$

8. Perform the following binary divisions.

   a) $(1001000)_2 \div (1000)_2$
   b) $(101101)_2 \div (1001)_2$
   c) $(1001011000)_2 \div (101000)_2$
   d) $(1100000)_2 \div (10000)_2$

9. Which of the following binary numbers is the result of this binary division: $(101010)_2 \div (111)_2$.

a) $(11)_2$
b) $(100)_2$
c) $(101)_2$
d) $(110)_2$

10. Which of the following binary numbers is the result of this binary division: $(1001110)_2 \div (1101)_2$.

a) $(100)_2$
b) $(110)_2$
c) $(111)_2$
d) $(1001)_2$

11. Perform the following binary divisions.

a) $(1001000)_2 \div (1000)_2$
b) $(101101)_2 \div (1001)_2$
c) $(1001011000)_2 \div (101000)_2$
d) $(1100000)_2 \div (10000)_2$

12. Which of the following binary numbers is the result of this binary division: $(111001)_2 \div (10011)_2$.

a) $(10)_2$
b) $(11)_2$
c) $(100)_2$
d) $(101)_2$

13. Which of the following binary numbers is the result of this binary division: $(10)_2 \times (1101)_2$.

a) $(11010)_2$
b) $(11100)_2$
c) $(10101)_2$
d) $(11011)_2$

14. Which of the following binary numbers is the result of this binary division: $(101010)_2 \times (111)_2$.

a) $(11000)_2$
b) $(11001)_2$
c) $(10101)_2$
d) $(11011)_2$

15. Which of the following binary numbers is the result of this binary division: $(10)_2 \times (1101)_2$.

a) $(11010)_2$
b) $(11100)_2$
c) $(10101)_2$
d) $(11011)_2$

16. Which of the following binary numbers is the result of this binary division: $(101010)_2 \times (111)_2$.

a) $(11000)_2$
b) $(11001)_2$
c) $(10101)_2$
d) $(11011)_2$

17. Which of the following binary numbers is the result of this binary division: $(1001110)_2 \times (1101)_2$.

a) $(11000)_2$

b) $(11001)_2$

c) $(10101)_2$

d) $(11011)_2$