Number System – Questions and Answers

A. Tick (✓) the correct answer

1. Which of the following is not a popular number system?
Answer: (b) Septadecimal

2. The value of each digit in a number can be determined using _____.
Answer: (d) All of these

3. The base of the decimal number system is _____.
Answer: (c) 10

4. An 'x' base number system will have x digits ranging from 0 to _____.
Answer: (c) $x - 1$

5. _____ number system has only two digits, 0 and 1.
Answer: (a) Binary

6. Octal number system has digits _____.
Answer: (b) 0–7

7. The value of 6 in $(1634)_8$ is _____.
Answer: (d) 384

8. The value of 6 in $(364)_{16}$ is _____.
Answer: (d) 96

9. The value of 6 in $(1634)_{10}$ is _____.
Answer: (c) 600

10. 8^0 = _____.
Answer: (b) 1

B. Fill in the blanks

1. The base of the binary number system is _____.
Answer: 2

2. If the base of a number system is 10, then it has digits from _____ to _____.
Answer: 0 to 9

3. To convert a decimal number into its octal equivalent, repeatedly divide the decimal number by _____.
Answer: 8

4. In _____ number system, each digit's position represents a specific power of 16.
Answer: Hexadecimal

5. A digit in octal number is equivalent to _____ bits in binary.
Answer: 3

C. Write T for True and F for False

1. The leftmost digit of a number has the lowest weight.
Answer: F

2. To convert a decimal number into its hexadecimal equivalent, repeatedly divide the decimal number by 16.
Answer: T

3. To convert a binary number into its equivalent decimal number, multiply the weight of each position by the digit at that position.
Answer: T

4. In the binary number system, each position represents a specific power of 2.

Answer: T

5. There are 16 digits in the hexadecimal number system.

Answer: T

D. Match the following

Column A	Column B
1. Decimal Number System	(a) 10
2. Binary Number System	(b) 2
3. Octal Number System	(c) 8
4. Hexadecimal Number System	(d) 16

Answers: 1–(a), 2–(b), 3–(c), 4–(d)