C) 1928

Binary:

$$1928 \div 2 = 964 \ R0 \longrightarrow 0$$
$$964 \div 2 = 482 \ R0 \longrightarrow 00$$
$$482 \div 2 = 241 \ R0 \longrightarrow 000$$
$$241 \div 2 = 120 \ R1 \longrightarrow 1000$$
$$120 \div 2 = 60 \ R0 \longrightarrow 01000$$
$$60 \div 2 = 30 \ R0 \longrightarrow 001000$$
$$30 \div 2 = 15 \ R0 \longrightarrow 0001000$$
$$15 \div 2 = 7 \ R1 \longrightarrow 10001000$$
$$7 \div 2 = 3 \ R1 \longrightarrow 110001000$$
$$3 \div 2 = 1 \ R1 \longrightarrow 1110001000$$
$$1 \div 2 = 0 \ R1 \longrightarrow 11110001000$$

$$(11110001000)_2 \ *$$

Octal:

$$1928 \div 8 = 241 \ R0 \longrightarrow 0$$
$$241 \div 8 = 30 \ R1 \longrightarrow 10$$
$$30 \div 8 = 3 \ R6 \longrightarrow 610$$
$$3 \div 8 = 0 \ R3 \longrightarrow 3610$$

$$(3610)_8 \ ✵$$

Hex:

$$1928 \div 16 = 120 \ R8 \longrightarrow 8$$
$$120 \div 16 = 7 \ R8 \longrightarrow 88$$
$$7 \div 16 = 0 \ R7 \longrightarrow 788$$

$$(788)_{16} \ ✵$$

4. a) Unsigned Integer

↳ range 0 to $\sum_{i=0}^{n-1} 2^i$ where n is

$$↳ = \frac{2^{(n-1)+1}}{2-1} - 1$$

$$= 2^6 - 1$$

$$= 64 - 1$$

$$= 63$$

∴ It has a range of 0 to 63 when 6 bits are used