

IMT 2017509

JURAIK

HAMID BHAT.

ASH

Answer 1:→

In IEEE 754, the numbers are represented as follows:→

- 1) Single Precision - 32 bits.
- 2) Double Precision → 64 bits

Single Precision - 32 bit

Sign(s)
1 bit

Exponent(E)
8 bits

Mantissa(M)
23 bits

Double Precision - 64 bit

Sign(s)
1 bit

Exponent(E)
11 bits

Mantissa(M)
52 bits

Conversion:→ To convert SP or DP floating point to decimal

2) For single Precision:→

$$(-1)^s \times (1.M) \times 2^{E - \text{bias}}$$

$$\text{bias} = 127$$

b) For Double Precision:→