

1(b)

Three types of line coding:

1. Unipolar.
2. Polar.
3. Bi-polar.

Unipolar seems better to me. There are two types in unipolar line coding or signalling.

- 1) Non return to zero \rightarrow NRZ.
- 2) Return to zero \rightarrow RZ.

Unipolar NRZ:

- a) It is simple.
- b) A lesser bandwidth is required.

Unipolar RZ:

- a) The spectral line present at the symbol rate can be used as a clock.

18101027

Ans 1 (a)

$$D = 19$$

$$m = 11$$

$$y = 1997$$

$$(1911)_{10} = (011101110111)_2$$

2B1Q°.

