

Signals & Systems Exam

1.

a) SPI (Serial peripheral Interface)

b) ~~Half duplex~~ full duplex.c) - Serial clock - provides the ~~very~~ clock signal~~- main out / subnode in~~

- main out / subnode in - Data line - transmit data from master to slave

- main in / subnode out - Data line - transmit data from slave to master.

2. A) a) Inverting Amplifier.

b) $\text{Gain} = -\frac{R_F}{R_I}$

c) $\text{Gain} = -\frac{24k}{6k}$

$$= -4$$

d) 0.2V I/P, O/P = ? Gain = -4.

$$0.2 \times -4 = \underline{-0.8V}$$

e) Phase -90° .