

HINTS

Question 1 : observe the pattern.

Question 2 : As you know the circuitry is of two part, one to get the logic done and the other for the display, here goes the hint for the latter:
Surf the net for IC 7447, and quick set up your circuitry..!!

Question 3 : A sine wave can be generated using square waves having varying pulse width.

Question 4 : Generate individual waveforms and then multiplex them using IC 4051.