

Question no 4. Attempt the following questions (20)

1. Draw and explain constructional details and transfer characteristics of n-channel depletion type MOSFET.
2. What are the different DC biasing techniques used for MOSFET? Analyze any one methods in detail.

Question no 5. Attempt the following questions (20)

1. Draw and explain op-amp as unity gain inverting adder for the three input voltages V1, V2 and V3.
2. Draw and explain differentiator circuit using op-amp with all waveforms and formulae.

Question no 6. Attempt the following questions (20)

1. Illustrate the working of IC555 as an Mostable multivibrator. list applications of it.
2. Design a voltage regulator using LM 317 to provide output voltage of 9V. Assume LM 317 regulator with load regulation providing minimum load current is greater than 10 mA Refer following fig.

