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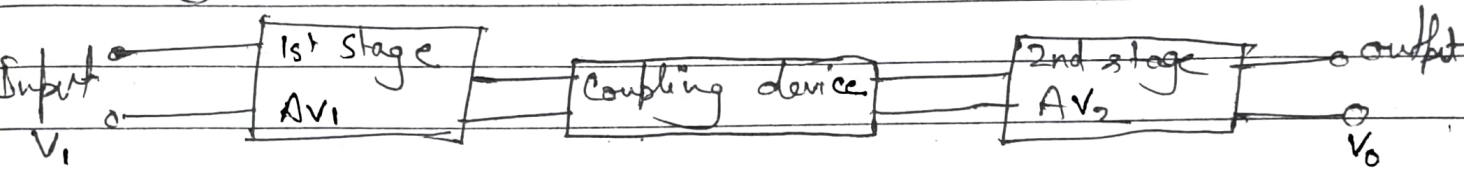
In Multi stage amplifiers the output of first stage is coupled

Answer:- In Multi-Stage amplifier the output of first stage is coupled to the output input stage using a coupling device. These device can usually be a capacitor or a transformer. This process of joining two amplifier stages using a coupling device can be called as cascading.

The following figure shows a two stage amplifier connected in cascade.



The overall gain is the product of voltage gain of individual stages.

$$A_V = A_{V1} \times A_{V2} = \frac{V_2}{V_1} \times \frac{V_0}{V_2} = \frac{V_0}{V_1}$$

Where A_V = overall gain, A_{V1} = Voltage gain 1st
A_{V2} = Voltage gain of 2nd stage

Purpose of Coupling device.

The basic purposes of a Coupling devices are.

- To transfer the AC from the output of one stage to the input of next stage.

- To block the DC to pass from the output of one stage to the input of next stage, which means to isolate the DC condition.

Types of Coupling:-

Joining one amplifier stage with the other in cascade, using coupling devices from a Multi-stage amplifier circuit. There are four basic methods of Coupling. using these coupling devices such as resistors, capacitors, transformers, etc.