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Answer to the Question no (3)(a)

Comparison between voltage and power amplifier.

Particular	voltage	Power
β	High (5 to 100)	Low (5 to 20)
R_e	High ($4 - 10 \text{ k}\Omega$)	Low (5 to 20 Ω)
Coupling	usually R-coupling	Invariable transformer coupling
Input voltage	Low (a few mV)	High (2-4 V)
Collector current	Low ($\sim 1 \text{ mA}$)	High (500 mA)
Power output	Low	High



Answer to the Question no. (2b)

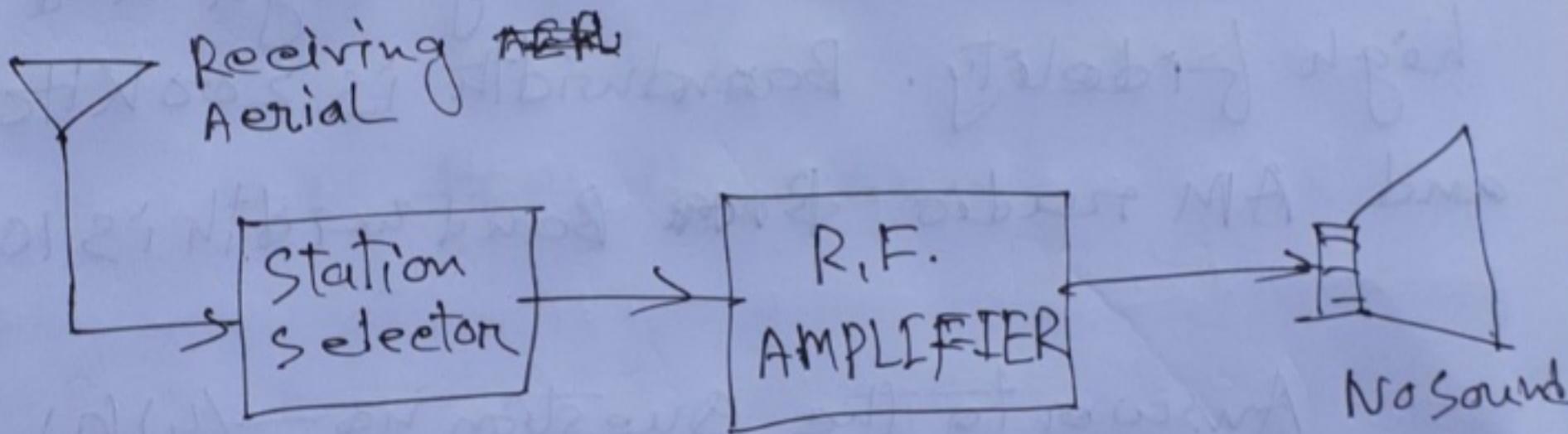
Difference between class A B and C power amplifier.

Class A	Class B	Class C
in this P.A. the operating point of BJT is at centre of load line	in this PA operating Point of BJT is in cut off region	in this P.A. the operating point of BJT is below the cut off region
under no signal condition Tx is on	Under no Signal Condition Tx is OFF	under no signal condition Tx is OFF
conduction angle $\theta = 0^\circ$ to 180°	conduction angle $\theta = 0^\circ$ to 180°	conduction angle $\theta = 68^\circ$ to 20°
$\eta = 50\%$	$\eta = 78.5\%$	$\eta \geq 95\%$

Answer to the Question no - (6)(a)

Circuit diagram of the demodulation process:

Recovering the audio signal from the modulation wave is known as demodulation.



Answer to the Question no - (6)(b)

one's performance is better than the others between AM and FM.

FM is better than AM . FM has better

Sound quality due to higher bandwidth

AM radio rang from 595 to 1705 kHz
but other hand FM radio rang from
88 to 108 MHz.

* FM Range is quite large and
AM Transmition is very high and
high fidelity. Bandwidth is 200 kHz
and AM radio ~~Band~~ Band width is 10 kHz

Answer to the question no-(4)(a)

Main purpose of a sinusoidal oscillator
Sinusoidal oscillator is known as An
electronic device that generates
sinusoidal oscillator of desired frequency.
They are damped and undamped oscillators.

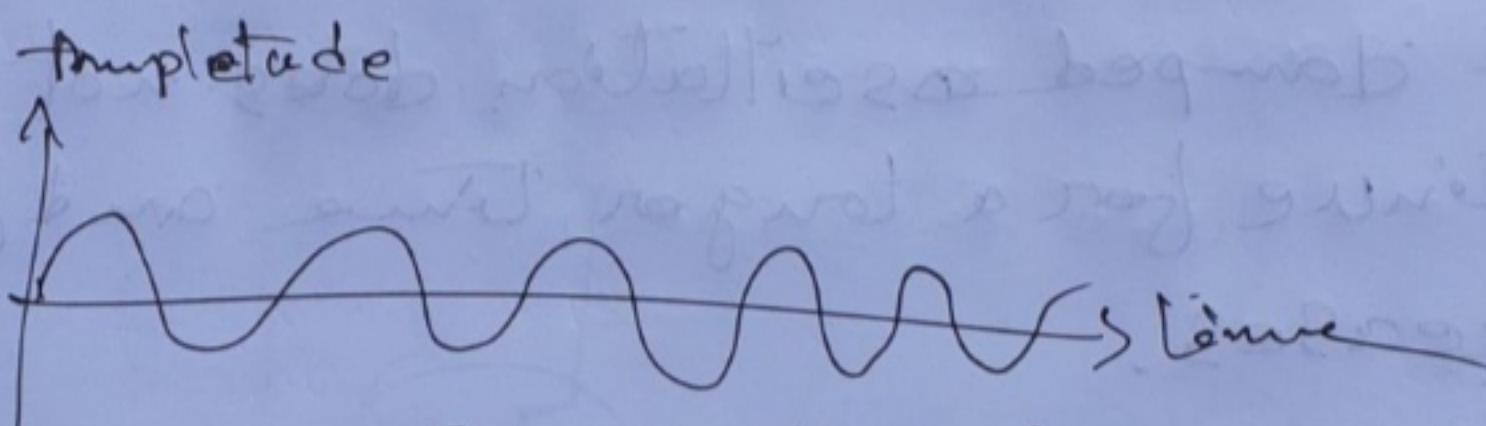
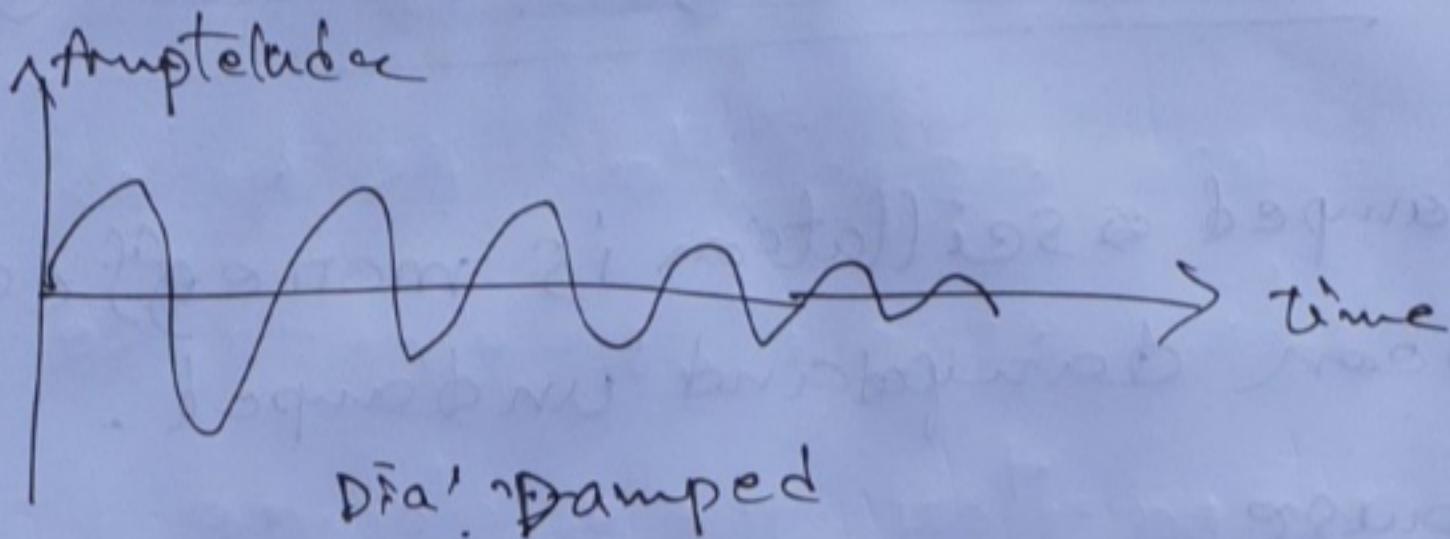


Fig: Undamped

Sinusoidal oscillation use for radio wave frequency. its Frequency ranges from 20Hz to 1 GHz, its use for ~~for~~ many purposes, for the wave signal frequency, for good quality.

Answer to the Question no—(4)(b)

~~damped~~ oscillation is more efficient
between damped and undamped.
because

The damped oscillation does not
continue for a longer time and finally
it ceases.

but the undamped oscillation has no
power losses or provisions to compensate
for the power losses.

Damped oscillators will die out eventually
undamped oscillators will oscillate
indefinitely.

Answer to the Question no - (2) b)

Re coupling transistor amplifier.

Diagram:

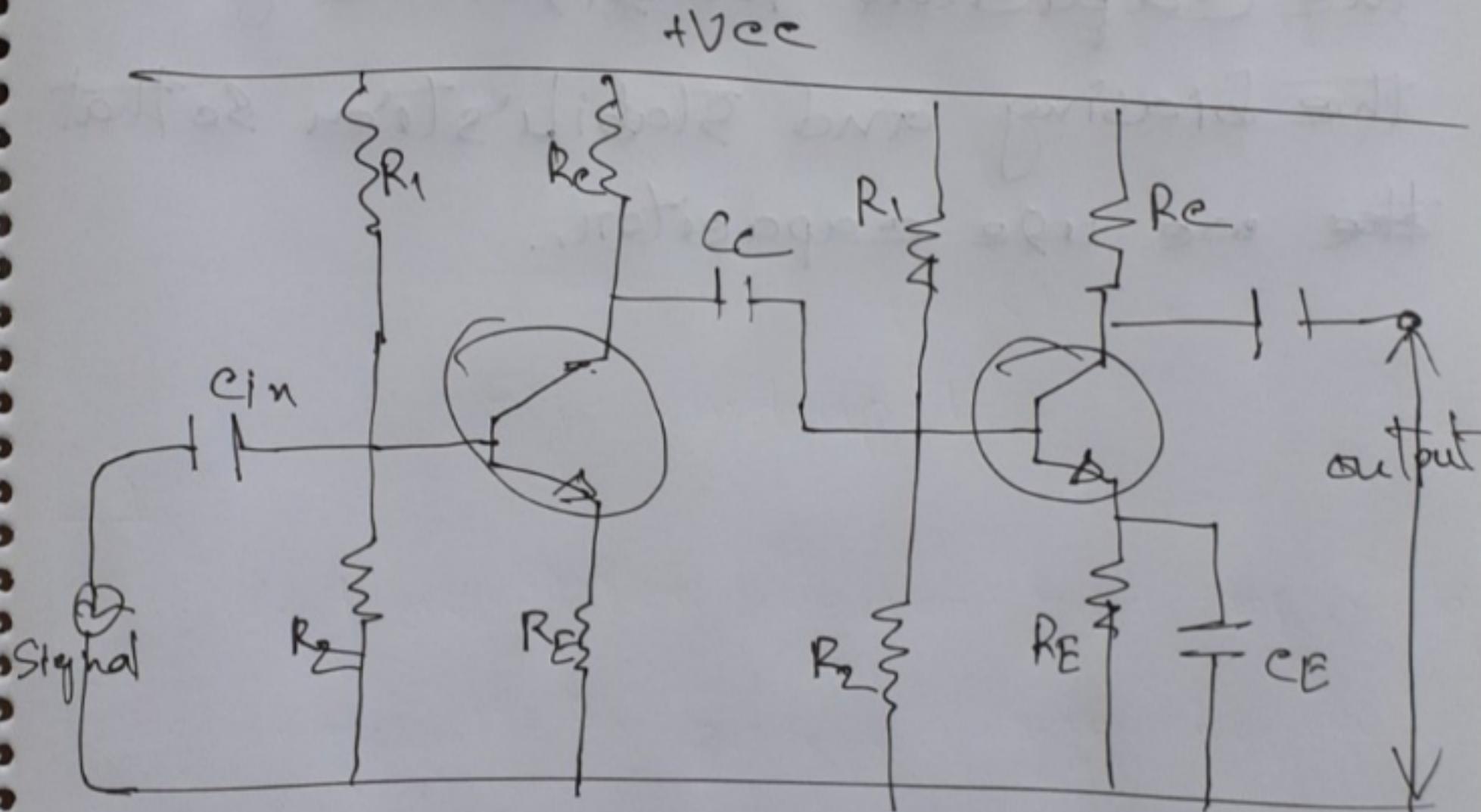


Fig: Re coupled Transistor amplifier

Answer to the Question no - ①(a)

~~we use capacitory~~ we use capacitory & transistor amplifier circuit, because,

The capacitor ~~resistance~~ ^{voltage} from the biasing and, stabilization so that ~~we use~~ we use capacitor.

①(b)

If we don't attach resistor the biasing and voltage stabilization will be less.