RV COLLEGE OF ENGINEERING®, BENGALURU-560059

(Autonomous institution affiliated to VTU, Belagavi)

Department of Electronics and Communication Engineering

Semester: III

Tutorials – Unit 3 - Answers

Course: NACS **Course Code: 21EC35**

Sl.No	QUESTION
1.	$\frac{V_o(s)}{V_i(s)} = \frac{1}{1+sCR}$
2.	$T.F. = \frac{R_2}{\frac{R_1}{1+sR_1C}+R_2} = \frac{R_2(1+sR_1C)}{R_1+R_2(1+sR_1C)}$
3.	$\frac{C(s)}{R(s)} = \frac{G_1G_2(G_3+G_4)}{1+G_1G_2H_1-G_1G_2(G_3+G_4)H_2}$
4.	$\frac{C(s)}{R(s)} = \frac{G_1G_2G_3}{1+G_1H_1+G_1G_2H_2+G_1G_2G_3H_3}$
5.	$\frac{C(s)}{R(s)} = \frac{G_1G_4(G_2+G_3)}{1+G_1G_2H_2+G_4H_1+G_1G_2G_4H_1H_2+G_1G_4(G_2+G_3)}$
6.	$\frac{C(s)}{R(s)} = \frac{G_1G_2G_3}{1+G_3H_1H_2+G_2G_3H_1+G_1G_2G_3H_1H_2H_3}$
7.	$C(s) = R(s)\left[\frac{G_1G_2}{1+G_1G_2H_1}\right]$ $C(s) = Y(s)\left[\frac{G_2}{1+G_1G_2H_1}\right]$
8.	$\frac{C_1(s)}{R_1(s)} = \frac{G_1G_2G_3}{1+G_3H_2+G_2H_3+G_1G_2G_3H_1}$ ..... Station 1 $\frac{C_2}{R} = \frac{G_3(1+G_2H_3)}{1+G_2H_3+G_3(G_1G_2H_1+H_2)}$ .....Station 2

9.	$\frac{C(s)}{R(s)} = \frac{G_1 G_2 G_4 + G_1 G_3 G_4}{1 + G_1 H_1 + G_1 G_2 G_4 H_2 + G_1 G_3 G_4 H_2}$
10.	$M = \frac{G_1 G_2 G_3 G_4 (1 + G_6 H_3 + G_7 H_4) + G_2 G_6 G_7 G_8 (1 + G_2 H_1 + G_3 H_2)}{1 + G_2 H_1 + G_3 H_2 + G_6 H_3 + G_7 H_4 + G_2 G_6 H_1 H_3 + G_2 G_7 H_1 H_4 + G_3 G_6 H_2 H_3 + G_3 G_7 H_2 H_4}$

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