
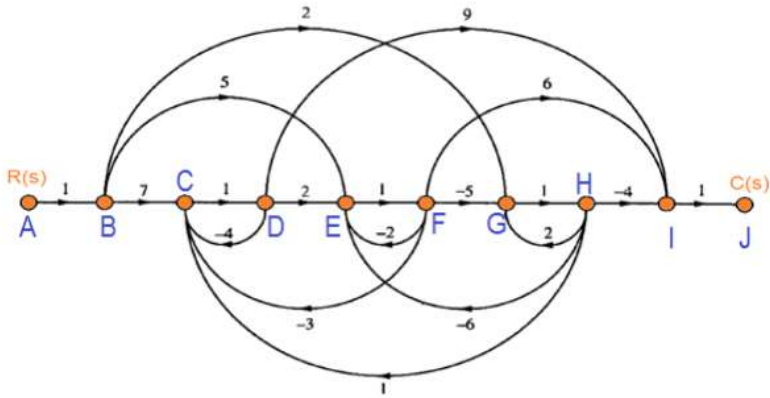
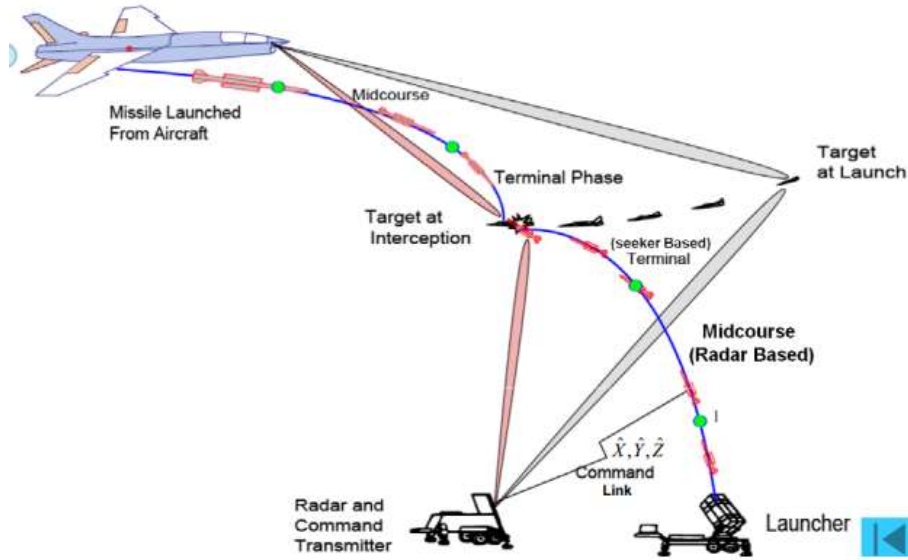


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2023			
Programme Name: B Tech (Aerospace Engineering with Spz. In Avionics)		Semester : VIII	
Course Name : Avionics System Design		Time : 03 hrs	
Course Code : AVEG 4007		Max. Marks: 100	
Nos. of page(s) : 02			
Schematic diagrams are must in each answers			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	What are the differences in Laplace and Fourier transformations?	4	CO1
Q 2	What are the various tests signals to analyze the system responses?	4	CO2
Q 3	What are the parameters needed to design the Avionics systems	4	CO3
Q 4	List out the challenges faced during the design of Missile Auto-pilot designs	4	CO 4
Q 5	Discuss the Avionics parameters in system designs	4	CO 4
SECTION B (4Qx10M= 40 Marks)			
Q 6	Draw the closed loop system for Missile Guidance & network systems and explain various sub-system parameters.	10	CO4
Q 7	What are the principles of missile operations? Discuss its operation with the schematic diagram	10	CO 3
Q 8	How to derive the GAIN scheduling while missile fire and in space?	10	CO 2
Q 9	Derive the transfer function model for “+” and “-” feedback system with schematic diagram under <i>ufb</i> and with the function H(s).	10	CO 1
SECTION-C (2Qx20M=40 Marks)			
Q 10	Derive the transfer function model for the SFG as shown below	20	CO2



Q 11

Discuss the missile launch system as shown below.



20

CO 4