Name: **Enrolment No:**	UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2021

Programme Name: B.Tech ASE+AVE **Semester : VIII**
Course Name : Navigation and Guidance **Time : 03 hrs**
Course Code : AVEG 4002 **Max. Marks : 100**
Nos. of page(s) : 02

SECTION A
[5x6=30]

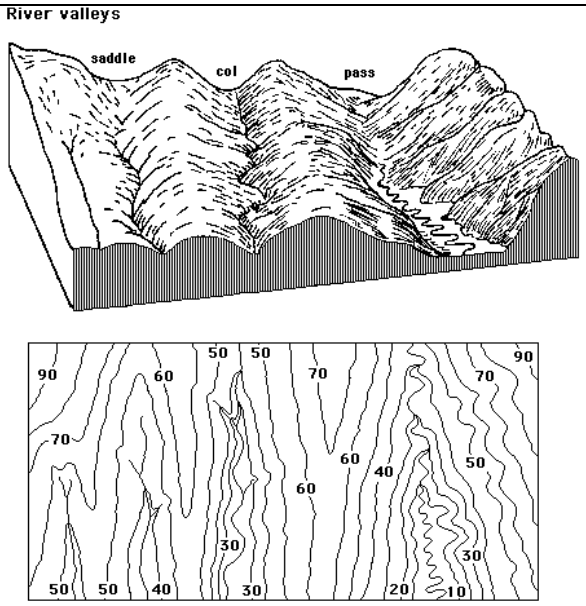
Type the Answers

S. No.		Marks	CO
Q 1	Discuss the various navigational parameters such as Latitude, Longitude and Altitude for guiding the vehicles.	5	CO1
Q 2	What are different AIDS for approaching the landing for aircraft?	5	CO2
Q 3	Discuss Hyperbolic Navigation in brief	5	CO 3
Q 4	Define the terms GPS and DGPS	5	CO 4
Q 5	How safely one could fly with the help of proper navigation and guidance tools	5	CO1
Q 6	How satellite navigation is useful for monitoring the disasters in remote areas.?	5	CO4

SECTION B
[10x5=50]

Scan and upload

Q 7	Describe the Dead-reckoning navigation and airborne radar navigation with schematic diagram.	10	CO2
Q 8	Describe the principle of operation for DECCA Navigation system with schematic diagram.	10	CO 3
Q 9	Derive the model equation for the system as shown below	10	CO 3
Q 10	How many components are connected to guide and aircraft over the runway? Describe the principle and operation of VOR.	10	CO 2
Q 11	How contour maps are useful in preparing the navigation charts useful in radar and sonar mapping. Discuss the chart as shown below	10	CO 1



SECTION-C
[1x20=20]

Scan and Upload

Q 12. The simplified Guidance navigation and control diagram is given below. Describe the each terms involved in it. How the guidance could be possible based on the navigational parameters . CO 4