Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2020

Course: *SPACE SCIENCE AND SPACE ENVIRONEMNT* **Semester:** *VIII*
Program: *B.TECH (AEROSPACE ENGINEERING)* **Time** *03 hrs*
Course Code: *ASEG 485* **Max. Marks:** *100*

Instructions:

SECTION A

S. No.	State if the following statements are '**True**' or '**False**'.	**Marks**	**CO**
Q 1	TNOs are found in our galaxy, but out of our solar system.	**3**	**CO1**
Q 2	Earth has an intrinsic Magnetosphere.	**3**	**CO2**
Q 3	Cosmic rays are EM waves stronger than even the UV and Gamma rays.	**3**	**CO3**
Q 4	Solar wind is created on Earth in regions which receive intense solar radiation.	**3**	**CO4**
Q 5	The Heliopause lies between the Tropopause and the Stratopause.	**3**	**CO1**
Q 6	The number of Van Allen Belts around the Earth can change.	**3**	**CO3**
Q 7	Energetic electrons are part of solar wind.	**3**	**CO4**
Q 8	The solar corona lies between the chromosphere and the photosphere of the sun.	**3**	**CO1**
Q 9	Energetic charged particles find it easy to enter the Earth's atmosphere around its poles.	**3**	**CO3**
Q 10	Some Cosmic rays can come from the sun too.	**3**	**CO3**

SECTION B

Q 11	Discuss and analyze the Van Allen Belt(s) created in the Earth's atmosphere.	**10**	**CO3**
Q 12	Differentiate between the inner planets and the outer planets. In which group does Pluto lie?	**8+2**	**CO1**
Q 13	Analyze the Earth's atmosphere in terms of pressure and temperature, and accordingly stratify it into different zones. **OR** What is the phenomenon of temperature inversion in the Earth's atmosphere? How many times does it manifest itself?	**10**	**CO2**
Q 14	Analyze the interaction of the solar wind with the Earth's magnetic field.	**10**	**CO4**

Q 15	Discuss the Earth's magnetic field in terms of its origin, distribution and orientation.	**10**	**CO2**
	SECTION-C		
Q 16	Beginning with the Proto-star stage explain the probable life cycle of our Sun till its supposed end.	**20**	**CO1**
	OR Give the most popular theories on the formation of solar system. Discuss in detail the most accepted one.	**20**	**CO1**