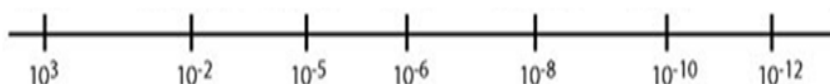|	**ADAMAS UNIVERSITY**		
	END (EVEN) SEMESTER EXAMINATION : MAY 2021		
	(Academic Session: 2020 – 21)		
Name of the Program:	B. Tech.	**Semester:**	VIII
Paper Title :	RS & GIS	**Paper Code:**	ECE44118
Maximum Marks :	40	**Time duration:**	3 hrs.
Total No of questions:	08	**Total No of Pages:**	02
(Any other information for the student may be mentioned here)	1. At top sheet, clearly mention Name, Univ. Roll No., Enrolment No., Paper Name & Code, Date of Exam. 2. All parts of a Question should be answered consecutively. Each Answer should start from a fresh page. 3. Assumptions made if any, should be stated clearly at the beginning of your answer.		

Answer all the Groups

Group A

Answer all the questions of the following   5×1=5

1.
   A) In electromagnetic radiation, electrical and magnetic fields travel at
      (a) Right angles to each other
      (b) Parallel to each other
      (c) Ahead of other
      (d) Behind of other

   B) The ultraviolet part of the spectrum has the
      (a) Longest wavelength
      (b) Both longest and shortest wavelengths
      (c) Shortest wavelength
      (d) None of the above

   C) Blue shift in red-edge of vegetation spectra is indicator of
      (a) Healthy vegetation
      (b) Stressed vegetation
      (c) Green vegetation
      (d) All of the above

   D) In the below given Electromagnetic Spectrum scale of Wave length (in meters), which is the shortest and longest waveband?

   E) Deforestation occurs in many countries around the world at different times therefore it is difficult to detect the ongoing damage. Which of the following remote sensing instruments would be best suited to monitor the deforestation?
      Choose one of these instruments
      (a)   Thermal infrared   (b)   Microwave   (c)   Radar
      (d)   Sona   (e)   Colour infrared

1

Group –B
Answer **any three** of the following   3×5=15

2. Discuss the advantages of vector GIS data compared to raster GIS data.

3. In its broadest sense, how would you describe remote sensing?

4. (a) What is the difference between GIS commands and GIS tools?
   (b) What is the digitizing process?

5. State briefly the difference between a geostationary satellite and a satellite having a Sun synchronous orbit.

Group –C
Answer **any two** of the following   2×10=20

6. (a) What is black body radiation?
   (b) A Green light has a wavelength of 525 nm. Determine the energy for the green light in joules.
   [Given speed of wave (v) = 3 x 10^8 /s and h = 6.626 x 10^{-34}].

7. (a) What is attribute data?
   (b) Describe how raster and vector data models are handled in GIS. State their pros and cons.

8. Write short notes on (**any two**):
   (i)   Spatial & attribute data
   (ii) Geographic scales
   (iii) Requirements of GIS
   (iv) land information system (LIS)

_____ END _____