Code No.: EC863PE | R20 | H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV–B.TECH–II–Semester End Examinations (Regular) – April - 2024
GLOBAL POSITIONING SYSTEM
(ECE)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A **(20 Marks)**

1. a)	Explain control segment in GPS.	[2M]
b)	Define satellite navigation.	[2M]
c)	Explain anti spoofing.	[2M]
d)	List the signal components of the GPS.	[2M]
e)	Define the multipath error.	[2M]
f)	List the different types of antennas in GPS.	[2M]
g)	Define LADGPS.	[2M]
h)	Explain INS integration.	[2M]
i)	What are the orbital parameters in GPS?	[2M]
j)	What are the applications of GPS in Military?	[2M]

PART-B **(50 Marks)**

2. Explain the architecture of GAGAN. [10M]

OR

3. Draw the functional block diagram of the Master Control Station. Also explain the functions of each block. [10M]

4. Explain C/A code generator &its properties. [10M]

OR

5. Compare GPS and GALILEO system with respect to satellite construction. [10M]

6. Explain the following errors in GPS receivers:
   a) Ionospheric errors. [5M]
   b) Tropospheric errors. [5M]

OR

7. Draw the architecture of GPS receiver. List the signal processing functions of the GPS receiver. [10M]

8. With the help of a neat diagram explain Wide Area DGPS. [10M]

OR

9. Explain the geo orbit determination by using geometric analysis. [10M]

10. Explain the RINEX format of observation and navigation data files. [10M]

OR

11. Explain the intelligent transportation in system. [10M]

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