[6181]-366

B.E. (Artificial Intelligence and Machine Learning)
AI IN DRONES
(2019 Pattern) (Semester-VII) (418544 C) (Elective-III)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:
1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right side indicate full marks.*
4) *Assume suitable data if necessary.*

Q1) a) What is Payload? Describe its types and their importance in drone. **[9]**

     b) What are the communication methods used by drones? **[9]**

OR

Q2) a) What are the concepts of kinematics and dynamics in drone? **[9]**

     b) Illustrate the different categories of antenna. **[9]**

Q3) a) What is Global Positioning System? Describe with appropriate example.**[9]**

     b) Explain inertial navigation in detail. **[8]**

OR

Q4) a) Describe the waypoint navigation with appropriate example. **[8]**

     b) What is path planning in drone? How does path planning work? **[9]**

Q5) a) What is flight control in drone? Explain in detail. **[9]**

     b) Describe the use of transmitter and receiver in a drone? **[9]**

OR

Q6) a) Describe the different types of electronic speed controllers? **[9]**

b) Describe the different types of flight controllers? **[9]**

Q7) a) What do you mean by aerial photography? Explain with example. **[9]**

b) Describe survey and mapping using drone. **[8]**

<div align="center">OR</div>

Q8) a) What are the applications of drones in precision agriculture? **[9]**

b) Illustrate the use of drone for building inspection? **[8]**

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