ASSIGNMENT 2

1. What is the condition for correct steering? Sketch and explain any one type of steering gear mechanism with its advantages.
2. Explain instantaneous Centre method for finding out the velocity of a point on link.
3. Describe different types of steering gear mechanism.
4. Derive the equation for finding out the ratio of angular velocities of two shaft of Hooke's joint.
5. Sketch and describe the working of whit-worth Quick return motion mechanism
6. Explain the following : 1. Rubbing Velocity 2. Instantaneous center 3. Kennedy's theorem
7. Derive the equation of displacement, velocity and acceleration of slider in a slider crank mechanism by analytical method
8. Explain inversion method of synthesis for four bar mechanism using Two point and Three Point.
9. What is steering gear mechanism? Derive the relation for correct steering for Devi's steering gear mechanism
10. Derive analytical expression for the displacement and velocity analysis of a slider crank mechanism.
11. With neat sketch, Explain: (i) Peaucellier Mechanism (ii) Hart's Mechanism (iii) Scott Russell's Mechanism.
12. What are Straight line motion mechanisms? Explain any three different engine indicators working on this mechanism.
13. Explain Ackerman steering gear mechanism with neat sketch
14. Explain Types of Instantaneous Centre and also state Aronhold Kennedy (or Three Centre in Line) Theorem.