S.No.	Group Numbers	Case Study Topics
01	**1A**	**Analytical approach of the inverse kinematic solutions of 6-DOF Industrial Robots** – A detailed case study.
02	**2A**	**Structural description & functioning of NAO humanoid Robot** – A detailed case study.
03	**3A**	**Structural description & functioning of a 4-DOF SCARA Robot** – A detailed case study.
04	**4A**	**Estimation of inverse kinematics of NAO humanoid robot** – A detailed case study.
05	**5A**	**Estimation of forward kinematics of KUKA KR5-arc robot** – A detailed case study.
06	**6A**	**Structural description & functioning of a BAXTAR Robot** – A detailed case study.
07	**7A**	**Study of 2D forward kinematics for an nR serial robot.**
08	**8A**	**Estimation of forward kinematics of BAXTAR robot** – A detailed case study.
09	**9A**	**Mathematical modeling of 4-DOF SCARA Robot** – A detailed case study.

10	10A	**Estimation of inverse kinematics of BAXTAR robot** – A detailed case study.
11	11A	**Structural description & functioning of a 6-DOF PUMA_560 Robot** – A detailed case study.
12	12A	**Anatomy study of humanoid robots.**
13	13A	**Study of Quaternion algebra kinematics & its Matlab implementation.**
14	1B	**Study of inverse kinematic solutions for 'n'-joint Planar Robot.**
15	2B	**Estimation of forward kinematics of NAO humanoid robot** – A detailed case study.
16	3B	**Structural description & functioning of a 6-DOF IRB_140 Robot** – A detailed case study.
17	4B	**Estimation of inverse kinematics of KUKA KR5-arc robot** – A detailed case study.
18	5B	**Qualitative study of the different types of Robot Arms and their specific applications.**
19	6B	**Mathematical modeling of 16-DOF Robot** – A detailed case study.

20	**7B**	**Mathematical modeling of 3-DOF Articulated Manipulator** – A detailed case study.
21	**8B**	**Mathematical modeling of 6-DOF PUMA_560 Robot** – A detailed case study.
22	**9B**	**Performing the Jacobian approach to find the velocity kinematics in 3D.**
23	**10B**	**Geometric approach of solving the inverse kinematics of PUMA_560 robot** – A detailed case study.
24	**11B**	**Comparative study of relative pose estimation of a random object in 2D & 3D space** – A detailed case study.
25	**12B**	**Analytical approach of the inverse kinematic solutions of 4-DOF SCARA Robot** – A detailed case study.
26	**13B**	**Mathematical modeling of 4-DOF Robot** – A detailed case study.