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| <b>IMS ENGINEERING COLLEGE</b>         | IMSEC/QF/48                  |
| <b>FORMATS</b>                         | Page 1 of 2                  |
|                                        | Issue No. : 2                |
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### **Assignment 4**

Q1. Write Sutherland-Hodgeman polygon clipping algorithm. Explain the modification given by Weiler and Atherton for concave polygon.

Q2. Explain the parallel version of line algorithm by two methods.

Q3. Apply the Liang Barsky algorithm to clip the line segment from A(3, 7) to B(8,10) against the regular rectangular window P(1, 2), Q(9, 2), R(9, 8), and S(1, 8).

Q4. What do you understand by the term concatenation of transformation? If A and B are two different transformations, illustrate with suitable example that  $A.B \neq B.A$ .

|     | Q1     | Q2       | Q3     | Q4     |
|-----|--------|----------|--------|--------|
| CO  | 2,3    | 1,2      | 2,3    | 2,3    |
| PO  | 1,2,12 | 1,2,3,12 | 1,2,12 | 1,2,12 |
| PSO | 1,4    | 1,4      | 1,4    | 1,4    |