INTRODUCTION

Roughly speaking, a graph consists of points and lines joining some pairs of points. In case all pairs of points are joined by lines the graph is said to be a complete graph.

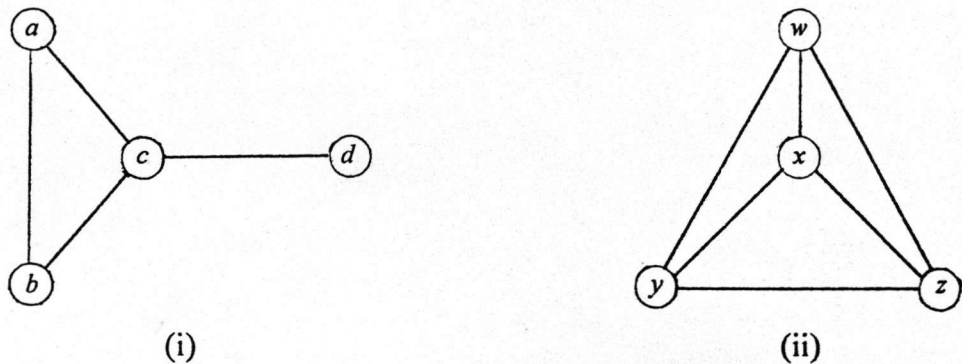(i)   (ii)

Figure 0.1

Figure 0.1 displays two graphs of order 4. The graph displayed in figure 0.1(ii) is complete, but the one in figure 0.1(i) is not.

Turán[4] considered the following problem: Given a number of points, at most how many lines can be joined among them so that. The graph obtained contains no complete subgraph of a given order? He found a formula for the maximum number of lines of graphs with p points that do not contain any complete subgraph of order r.

In this study we consider a more general question: Given p points, at most how many lines can be joined among them so that the graph obtained contains exactly n disjoint complete subgraphs of order r?