Assignment

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Case Studies :

We conclude this chapter with this case studies interval graph and Markov chains.

Interval Graph:

It is used extensively in studies order. In such graph, the corner corresponds pairs of object and overlap in same way. Although interval graph 1st arise in a genetic content they have also been used in area such that archeology.

Archaeology:

At the end of 19th, Archeology was interested in the various types of pattery and and other facts that have been found in egypt.

particularly, Sir Padrie used the later from nine hundred graves in cemetries. This Process is known as squence dating.
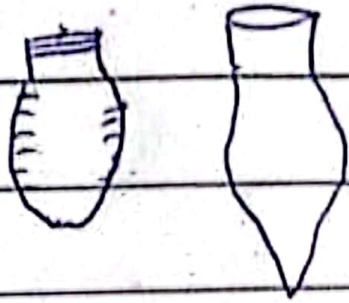
pattery found by Sir Patrie.

In dating the graph, they are assume that if two different aterfacts occured togather in the same grave then Tuir Time period must have overlaped.

Example:

Artefact a and b occurred togather caused tay in the same grave a and f not. we can regard such an matrix as the adjacency matrix of graph.
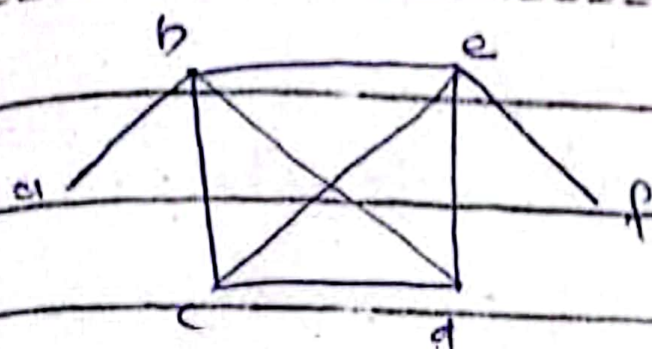
	a	b	c	d	e	f
a	—	v	x	x	x	x
b	v	*	v	v	v	x
c	x	v	—	v	v	x
d	x	—	v	x	v	x
e	v	*	x	v	*	x
f	x	x	x	x	v	—

	a	b	c	d	e	f
a	0	1	0	0	0	0
b	1	0	1	1	1	0
c	0	1	0	0	0	0
d	0	1	0	1	0	0
e	0	1	1	0	1	0
f	0	0	0	0	1	0

Any graph that gives information
in chronoligical from to this we
construct a set of interval on the
real time corresponding to the
priod during any graph.
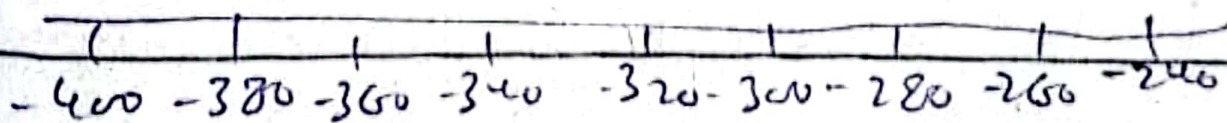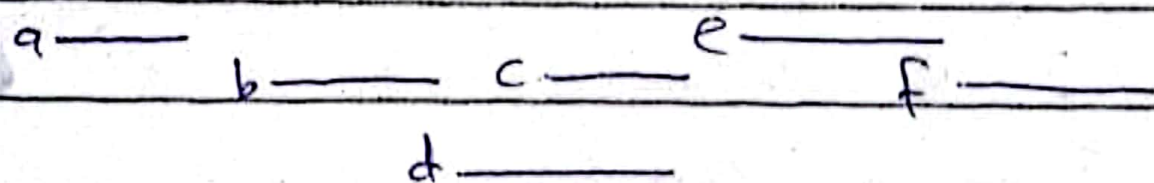
$$a : (-400 , - 360)$$

$$b : (-380 , - 320)$$

$$c : (-360 , -300)$$

$$d : (-340 , - 320)$$

$$e : (-340 , -260)$$

$$f : (-280 , - 240) .$$

Genetic:

For some time genetic have regarded the genetic chromsome as a linear arrangement of genes, and it is netral to ask whether the fine structural inside the genitic problem called Benzer's Problem and so, one to study change in the structure of the whole gene known as imutatiens.

Markov Chains:

The study of markove chain has arrisen in wide varrety of arias from genetizt and statistic to computing and sociology for case of presentation,

Let us suppose P_{ij} he probability that e_i to e_j in one mint of example $P_{37} = 3 - \frac{1}{3}$ and $P_{24} = 0$.

$$P = \begin{pmatrix} 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1/2 & 1/3 & 0 & 0 & 0 \\ 0 & 0 & 1/3 & 1/6 & 1/3 & 0 \\ 0 & 0 & 0 & 0 & 1/6 & 1/3 \\ 0 & 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$