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| **Syllabus changes** |
| The content identified by ~~strikethrough~~ has been deleted from the syllabus and the content identified in *italic*s has been revised in the syllabus for teaching from 2023  3.1.18 – *Recognise* ~~identify~~ possible non-causal explanations for an association, including coincidence and confounding due to a common response to another variable, and communicate these explanations in a systematic and concise manner  3.3.3 - construct an adjacency matrix from a given graph or digraph and use the matrix to *form multi-stage matrices to* solve associated problems  **Glossary**   |  |  | | --- | --- | | **Degree of a vertex (graph)** | In a graph, the degree of a vertexis the number of edges *that enter or exit from the vertex, thus loops are counted twice* ~~edges incident with the vertex, with loops counted twice. It is denoted deg~~ | | **Cycle** | A cycle is a closed *path* ~~walk~~ which begins and ends at the same vertex and which has no repeated edges or vertices except the first. If a, b, c and d are the vertices of a graph, the closed walk bcdb that starts and ends at vertex b (shown dotted) an example of a cycle. | | **Hamiltonian *graph* ~~cycle~~** | *A connected graph is Hamiltonian if it contains a closed path (starts and ends at the same vertex), that includes every vertex (except the first one) once only. No edge is repeated.*  ~~a connected graph is Hamiltonian if it contains a closed path (starts and ends at the same vertex), that is, includes every edge and every vertex (except the first one) once only~~ | | ***Semi-* Hamiltonian *graph***  ***~~path~~*** | *A semi-Hamiltonian graph contains a path that includes every vertex in a graph once only but is not a cycle.*  ~~A Hamiltonian path is a path that includes every vertex in a graph once only. A Hamilton path that begins and ends at the same vertex is a Hamiltonian cycle.~~  ~~These concepts are useful in solving practical problems, such as: planning a  sight-seeing tourist route around a city, or the travelling-salesman problem.~~ | | **Average percentage**  **method** | In the average percentage method for calculating a seasonal index, the data for each ‘season’ are expressed as percentages of the average for the year. The percentages for the corresponding ‘seasons’ for different years are then averaged using *a mean ~~or media~~n t*o arrive at a seasonal index. | |