

Internal Examination - Mar 2021

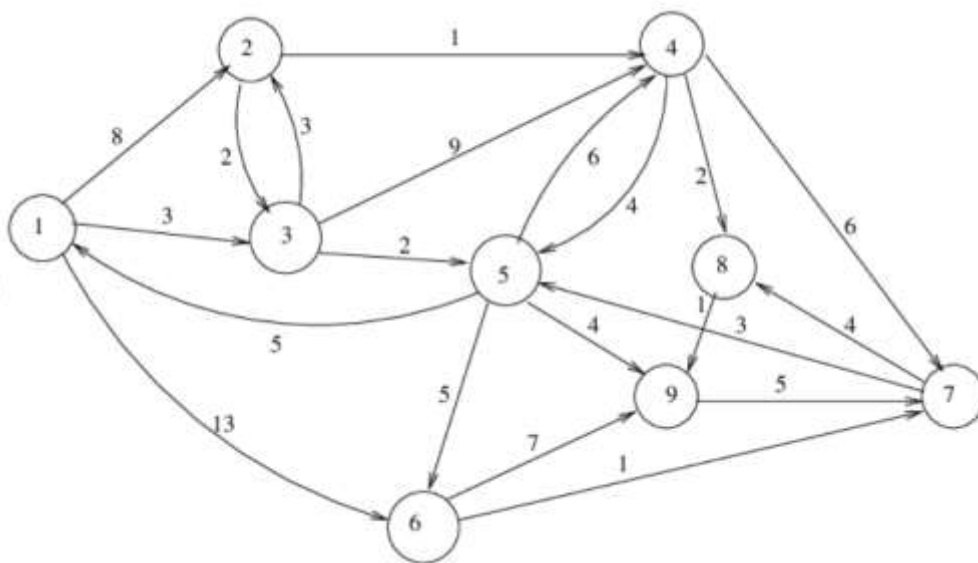
Duration: 1hr 30 Min+ 20 min uploading

Maximum Marks: 30 Marks

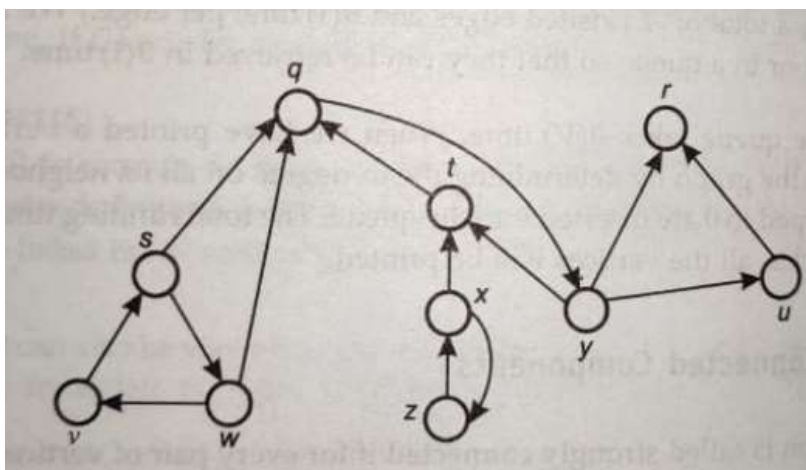
Instructions: This question paper contains Four questions, attempt any 3. All carry 10 marks.

Q1) For the graph shown below find the following:

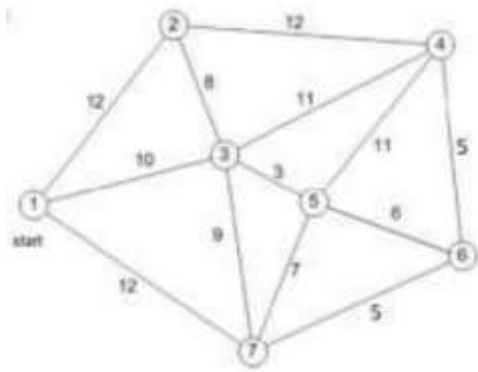
- a) Adjacency list representation
- b) Adjacency matrix representation
- c) IN and OUT degree for each node



Q 2) Write about Kosaraju algo. find the strongly connected components for fig shown below



Q 3) a) Find a minimum cost, a newspaper agent drops the paper to area assigned (v nodes) in such a way that he must cover all area (nodes) with minimum travelling. cost compute the minimum travelling cost using travelling salesperson problem for below image. (Start from 1 node).



b) explain Flynn's Classical Taxonomy

Q4) Show the circuit satisfiability, SAT and 3 CNF SAT problem in NP complete using proper example.