

1. Give an example and briefly explain the advantage and disadvantage of using each of the following fault tolerant techniques.

- a) Graceful degradation
- b) Algorithmic-based fault tolerance
- c) Utilizing spares

2. Consider a 5-dimensional hypercube.

- a) How many 4 dimensional subcubes are available in such a hypercube. List them.
- b) How many fault-free 4-dimensional subcubes are available if the link connecting node 11011 and node 10011 is broken? List them.
- c) How many fault-free 4-dimensional subcubes are available if in addition to the above link, nodes 11010 and 01000 are faulty. List them.