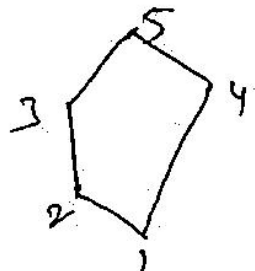
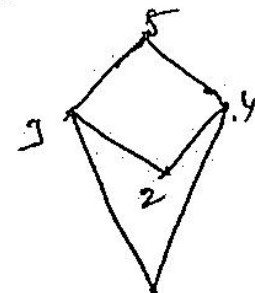
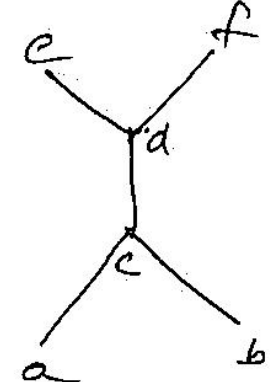
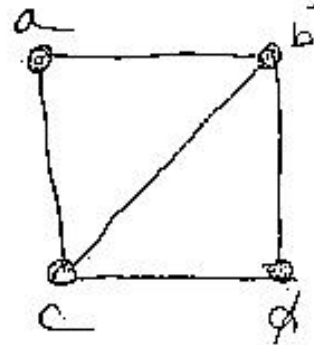


Mid-2 Assignment Questions (DMGT)

- ① Let $f: \mathbb{R} \rightarrow \mathbb{R}$ and $g: \mathbb{R} \rightarrow \mathbb{R}$ where \mathbb{R} is the set of real numbers find $f \circ g$ and $g \circ f$ where $f(x) = x^2 - 2$ and $g(x) = x + 4$. Determine whether these functions are Injective, Surjective and bijective.
- ② Select an example of a relation that is neither reflexive nor irreflexive and example of irreflexive
- ③ Select and Transitive
- ④ Define Lattice. Check the following Hasse diagram which are lattices or not
- ① 
- ② 
- ③ 
- ⑤ In how many ways can a Committee of 5 persons be formed out of 6 men and 4 women when at least one woman has to be necessarily selected?
- ⑥ How many arrangements are there of the words MISSISSIPPI, TALLAHASSEE
- ⑦ Find n if ① $P(n, 4) = 42$
- ⑧ write a short notes on Pigeon Hole Principle and its applications

⑦ Define graph and types of graphs with examples

⑧ Find the chromatic number for the following graph



⑨ Define Isomorphism in Graphs. Check whether the following graphs G_1 and G_2 are Isomorphic?

