Q1. Identify the propositions, and show their relations using appropriate logical operators.

a) If you are happy and watch movies, then your parents ask you to study.

b) You are a Bangladeshi or if you are not a Bangladeshi, then your friend is European

Q2. Use a series of logical equivalence to shat

$$(p \land (p \rightarrow q)) \rightarrow q$$

is a Tautology/contradiction/contingency

Q3. Construct the Truth Table for the compound proposition defined as

$$(\neg q) \rightarrow (p \lor \neg r)$$

Q4. Identify the propositions and show their relations

" For you to get a good job in Pathao, it is sufficient for you to learn CSE 173.