chapter - 1; section - 1

12.Let p, q, and r be the propositions
p :You have the flu.
q :You miss the final examination.
r :You pass the course.
Express each of these propositions as an English sentence.

a) p → q

ans: If you have the flu, then you will miss the final examination.

b) ¬q ↔ r

ans: If you won't miss the final examination, then you'll pass the course, and conversely.

c) q →¬r

ans: If you miss the final examination, then you will not pass the course.

d) p ☐   ☐

ans: You have the flu, or you miss the final examination, or you pass the course.

e) (p →¬r)☐   →¬r)

ans: If you have the flu, then you will not pass the course or if you miss the final examination, you will not pass the course.

f) (p ☐   (¬q ☐

ans: You have the flu and you miss the final examination or you don't miss the final examination and you pass the course.