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1705072 will verify my answer.

- **21.** For each of these sentences, state what the sentence means if the logical connective or is an inclusive or (that is, a disjunction) versus an exclusive or. Which of these meanings of or do you think is intended?
- a) To take discrete mathematics, you must have taken calculus or a course in computer science.
- **b**) When you buy a newcar from Acme Motor Company, you get \$2000 back in cash or a 2% car loan.
- c) Dinner for two includes two items from column A or three items from column B.
- d) School is closed if more than 2 feet of snow falls or if the wind chill is below -100.

<u>Answer:</u> The main difference between inclusive or and exclusive or is if both the propositions are true inclusive or is true, on the other hand exclusive or is false. Now let's discuss the sentences.

- a) If you take both the courses, there is no way the proposition is false. So it is an inclusive or.
- b) The company will not give you \$2000 back in cash and a 2% car loan at the same time. So it is an exclusive or.
- c) This offer will not allow you to take from both columns. So, it is an exclusive or.
- d) The school will remain closed if both of the calamities occur at the same time. So, it is an inclusive or.