LeadSquared Assignment

Name:-K.S.Uttham

RegNum:-17BCE0385

College Name:-VIT,Vellore

1. **Write a query to print the number of employees per department in the organization**

Sol.) SELECT DEPARTMENT, count(*) from Employee group by DEPARTMENT;

2. **Write an SQL query to find the name of the top-level manager of each department.**

Sol.) SELECT EMPLOYEE _ID, FIRST_NAME, DEPARTMENT from Employee where EMPLOYEE _ID in (select EMPLOYEE _ID from Employee where MANAGER not null);

3. **Write a query to find the total incentive received by a given employee in a given month.**

Sol.) SELECT FIRST_NAME, LAST_NAME, MONTH(INCENTIVE_DATE), SUM(INCENTIVE_AMOUNT) FROM Employee JOIN Incentives ON Employee.EMPLOYEE_ID =Incentives.EMPLOYEE_ID GROUPBY(MONTH(Incentives.INCENTIVE_DATE));

4. **Write a query to find the month where employees got maximum incentive.**

Sol.) SELECT INCENTIVE_DATE from Incentives where EMPLOYEE_ID=x and INCENTIVE_AMOUNT=(SELECT max(INCENTIVE_AMOUNT) from Incentives where EMPLOYEE_ID =x);

5. **You have two sand timers, which can show 4 minutes and 7 minutes respectively. Use both the sand timers (at a time or one after other or any other combination) and measure a time of 9 minutes.**

Sol.) 1. Start the 7 minute sand timer and the 4 minute sand timer.
2. Once the 4 minute sand timer ends turn it upside down instantly.
Time Elapsed: 4 minutes. At this moment, 3 minutes of sand is left in the 7 minute sand timer.
3. Once the 7 minute sand timer ends turn it upside down instantly.

Time Elapsed: 7 minutes. At this moment, 1 minutes of sand is left in the 4 minute sand timer.

4. After the 4 minute sand timer ends, only 1 minute is elapsed in 7 minute sand timer, therefore for another minute turn the 7 minute sand timer upside down.

Time Elapsed: 8 minutes.

5. When the 7 minute sand timer ends, total time elapsed is 9 minutes.

So effectively 8 + 1 = 9.

6. **John and Mary are a married couple. They have two kids, one of them is a girl. Assume safely that the probability of each gender is 1/2.What is the probability that the other kid is also a girl?**

Sol.) P(Both girls | At least one girl) = P(both girls) / P(At least one girl)

P(Both girls) = .5 * .5 = .25

P(At least one girl) = 1 - P(No girls)

P(No girls) = P(Both boys) = .5 * .5 = .25

P(AT least one girl) = 1 - .25 = .75

Thus, P(Both Girls | At least one girl) = .25 / .75 = 1/3

7. **The following appeared as part of a campaign to sell advertising time on a local radio station to local businesses.**

Ron's Cafe began advertising on our local radio station this year and was delighted to see its business increase by 10 percent over last year's totals. Their success shows you how you can use radio advertising to make your business more profitable.

Discuss how well reasoned you find this argument. In your discussion be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underline the thinking and what alternative explanations or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in the argument would make it more logically sound and what, if anything, would help you better evaluate in conclusion.

Sol.) According to the argument, radio advertising was a prime factor in boosting Ron's Cafe's business. It suggests that radio advertising would help in making any business successful at any time. However, the argument is weak as it fails in providing enough information to build a strong line of reasoning. Yes, since the advertisement occurred on a radio station local to the business, it could have helped in spreading the word among local radio listeners, especially if the majority of them were coffee consumers or had a significant interest in such establishments. However, in today's day and age, the number of radio listeners has decreased considerably, which leads to the assumption that perhaps there were other factors involved in their success. Other modes of advertising might have proved more rewarding or customer satisfaction might have led to regular customers; there is no information provided regarding that. Another aspect to be considered is the amount of money spent on advertising. If it was specified that the increase in the business was offset

by the amount of money spent, then the argument would have held. A new product could have sold well too. In conclusion, there are many arguments that could refute the given argument, so radio advertising may not have been the only reason behind the cafe's success.