1. Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?

   Top Three Variables Contributing to Conversion Probability:
   Based on the RFE analysis, the top three variables in the model that most contribute to the probability of a lead getting converted are:
   1. **Total Time Spent on Website**: Leads who spend more time browsing the website are more likely to convert. This suggests that engaged leads are more interested in the courses.
   2. **Lead Add Form**: Leads generated through the "Lead Add Form" have a significantly higher conversion rate. This indicates that leads acquired through this specific channel are highly qualified.
   3. **Last Activity_SMS Sent**: Leads who received an SMS message from X Education are more likely to convert. This highlights the effectiveness of SMS marketing in engaging leads.

2. What are the top 3 categorical/dummy variables in the model which should be focused the most on in order to increase the probability of lead conversion?

   The top three categorical/dummy variables that should be focused on to increase the probability of lead conversion are:
   1. **Lead Source_Direct Traffic**: Leads who arrive directly to the website (not through referrals or search engines) are more likely to convert. This suggests that leads who already have a strong interest in X Education's services are more likely to enrol.
   2. **Lead Source_Welingak Website**: Leads originating from the Welingak website have a very high conversion rate. This indicates the potential of this specific website as a source of high-quality leads.
   3. **Tags_Closed by Horizzon**: Leads who have been "Closed by Horizzon" have a lower conversion rate. This suggests that leads in this category may need additional nurturing or attention before attempting to convert them.

3. X Education has a period of 2 months every year during which they hire some interns. The sales team, in particular, has around 10 interns allotted to them. So during this phase, they wish to make the lead conversion more aggressive. So they want almost all of the potential leads (i.e. the customers who have been predicted as 1 by the model) to be converted and hence, want to make phone calls to as much of such people as possible. Suggest a good strategy they should employ at this stage.

   During the internship period, X Education should employ a more aggressive lead conversion strategy:
   1. **Focus on High-Probability Leads:** Prioritise contacting leads predicted as "1" by the model, representing those with a higher likelihood of conversion.

2. **Targeted Outreach**: Use a mix of phone calls, emails, and personalised messaging to engage these leads, emphasising the benefits of the courses and addressing any concerns.
3. **Limited Time Offers**: Introduce time-bound incentives or discounts to encourage immediate enrolment.
4. **Internship Team Allocation**: Assign the 10 interns to specific lead groups based on their expertise and interests. This can create a more personalised experience for the leads.
5. **Data Monitoring and Feedback**: Continuously track the results of the internship campaign and adjust the strategy based on performance. This data-driven approach can optimise conversion rates.

4. Similarly, at times, the company reaches its target for a quarter before the deadline. During this time, the company wants the sales team to focus on some new work as well. So during this time, the company's aim is to not make phone calls unless it's extremely necessary, i.e. they want to minimise the rate of useless phone calls. Suggest a strategy they should employ at this stage.

When the company reaches its target for a quarter, a more conservative approach is recommended:

1. **Lead Score Threshold**: Implement a higher lead score threshold (e.g., a score above 80) for initiating phone calls. Only contact leads with a very high probability of conversion.
2. **Email-Based Nurturing**: Focus on email marketing and content creation to nurture leads who have a lower score but still show potential.
3. **Automated Follow-Up**: Set up automated email sequences to engage leads based on their activity and interests.
4. **Internship Team Redeployment**: Redeploy interns to other tasks that can contribute to the company's overall growth, such as content creation or marketing research.

By implementing these strategies, X Education can effectively optimise their sales efforts during different stages of the year, maximising conversion rates while minimising wasted resources.