(25 marks)

Question 2

A survey of 100 shoppers, randomly selected from a large number of Saturday supermarket shoppers, showed that the mean shopping spend was $\notin 90.45$. The standard deviation of this sample was $\notin 20.73$.

(a)	Find a 95% confidence	interval for the r	nean amount spent in a	supermarket on that Saturday.
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(b) A supermarket has claimed that the mean amount spent by shoppers on a Saturday is €94. Based on the survey, test the supermarket's claim using a 5% level of significance. Clearly state your null hypothesis, your alternative hypothesis, and your conclusion.

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(c) Find the *p*-value of the test you performed in part (b) above and explain what this value represents in the context of the question.

<i>p</i> -value:														
Explanation:	Explanation													