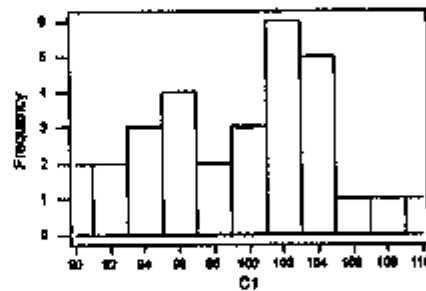
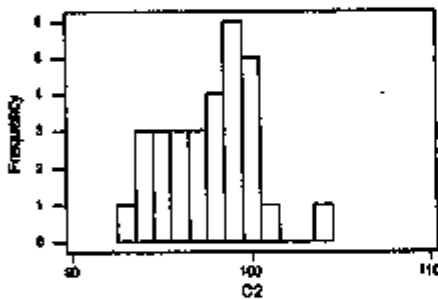


# 國立中央大學九十一學年度碩士班研究生入學試題卷

所別: 工業管理研究所 甲、乙組 科目: 統計學 共 / 頁 第 / 頁

1. When we treat the return rate of an investment as a random variable, explain the risk of this investment statistically. (15%)
2. In a production line, the characteristic of products has one sigma mean shift from the target and the specification covers ten sigma. Explain how to calculate the defective rate if the characteristic follows a normal distribution. (15%)
3. Give two real examples that are Poisson distributed. (15%)
4. The following two histograms are drawn based on the data from two production lines. Compare the performance of these two lines. (20%)



5. Calculate the interquartile range and standard deviation of the following data. (20%)

64	67.0
66	63
76	75
72	74
79	78
75	75
74	76
68	66

6. Let  $T(v)$  be a  $t$  distribution with  $v$  degree of freedom and  $P(i) = \text{prob}(-2 < T(i) < 2)$ . Is  $P(5)$  greater than  $P(6)$ ? Justify. (15%)