

**COMPARING TESTS FOR A MIXED DESIGN  
WITH BLOCK EFFECT**

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Title

Comparing Tests for a Mixed

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# ABSTRACT

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Tests Comb and CombII are used to test the equality of means in a mixed design which is a combination of randomized complete block design and completely randomized design. The powers of Comb and CombII for a mixed design have already been compared with Page's test (Magel, Terpstra, Wen (2009)) when there was little or no block effect added to the portion that was analyzed as a completely randomized design. In this paper, we wish to compare the tests when the portion of the design analyzed as a completely randomized design actually has a block effect.

A Monte Carlo simulation study was conducted to compare the power of the three tests where Page's test was used only on data from the randomized complete block portion. A variety of situations were considered. Three underlying distributions were included in the simulation study. These included the normal distribution, exponential distribution, and t distribution with degree of freedom equal to 3. For every distribution, 16, 32 and 40 blocks were used in the randomized complete block design portion where the equal sample size of completely randomized data portion was  $1/8$ ,  $1/4$  and  $1/2$  the number of blocks considered. Unequal sample sizes for the completely randomized design portion were also considered. Powers were estimated for different location parameter arrangements for 3, 4 and 5 populations. Two variances, 0.25 and 1, for the block effect were used.

The block factor added into the completely randomized design portion didn't change the test with highest rejection percentage for the equal sample size cases, although the powers of the two tests for the mixed design decreased. For most of unequal sample size cases, Page's test has the highest rejection percentage. Overall, it was concluded that it was better to use one of the two tests for mixed design instead of Page's test when there were equal sample sizes for portion analyzed as a completely randomized design. When there were not equal size samples, but the first sample size was twice the size of the others, it was generally better to use Comb over Page's unless the number of populations became very large or there was a large block effect variance.

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# CHAPTER 1

## INTRODUCTION

Cholesterol is essential for life, but high levels in circulation are associated with atherosclerosis. People are becoming to realize the importance of cholesterol as a main indication of health. In order to improve employees' work efficiency and to decrease insurance costs, a large facility wants to introduce a wellness program to the employees and measure their cholesterol level during the period of the program to test whether the program is useful in decreasing the employees' cholesterol levels. To test whether or not the program was working, a randomized complete block design was utilized. At the beginning of the program, random samples of employees who elected to participate and take part in the program were taken. The cholesterol levels of these employees were measured before starting the program, and they were to be measured again at 1 year and at 2 years into the program. However, it has emerged that the facility has an approximately 17% annual turnover rate. Some employees, in the initial randomized sample, left the facility during the first year of the program so that their cholesterol data could not be obtained any more. Additional employees that were in the initial program quit between the first and second years of the program, therefore, their two year cholesterol data could not be obtained. The facility decided to toss out all incomplete data. The question is that could this incomplete data have been used?

A lot of data is missed if the observations from those employees who stopped work for the facility were ignored. Those observations could not be used as data from a randomized complete block design, but we still could consider them as data from a

completely randomized design. A mixed design consisting of data from a randomized complete block design and from a completely randomized design could be used.

Table 1 gives the arrangements of the mixed design, where  $y_{ij}$  denotes the  $j^{\text{th}}$  observations'  $i^{\text{th}}$  year cholesterol level data. Those observations that have the three cholesterol levels data, such as observation 1, 4 and 6, were looked as randomized complete block design portion; those observations at least one year data was missing, such as observation 2, 3, 5, 7, 8 and 9, were looked as completely randomized design portion.

**Table 1. The Arrangement of the Mixed Design**

Treatment	Base	1 <sup>st</sup> year	2 <sup>nd</sup> year
Block (employee)			
1	$y_{01}$	$y_{11}$	$y_{21}$
2	$y_{02}$	$y_{12}$	-
3	$y_{03}$	-	-
4	$y_{04}$	$y_{14}$	$y_{24}$
5	$y_{05}$	-	-
6	$y_{06}$	$y_{16}$	$y_{26}$
7	$y_{07}$	$y_{17}$	-
8	$y_{08}$	-	-
9	$y_{09}$	$y_{19}$	-

Magel, Terpstra, Wen (2009) proposed two nonparametric tests which combined Page's test and the Jonckheere-Terpstra test for the mixed design. They considered only cases where there was no block effect in the completely randomized design portion. The results of their simulation study showed that it was better to use one of the tests for the mixed design instead of throwing out observations and using only a test for the randomized complete block portion.

We are interested in how the tests proposed by Magel et al. (2009) do when there is a block effect introduced. This study will add a block effect into the completely randomized design data and consider cases in which the variance of the blocking factor

is small and large, respectively. The powers of the two proposed tests for the mixed design (Magel et al. (2009)) will be compared under these circumstances to the test using only the randomized complete block portion.

Chapter 2 introduces the tests considered in this paper. Chapter 3 provides the details of the simulation study comparing powers of the tests. The results are given in Chapter 4 and the conclusions are discussed in Chapter 5.

# CHAPTER 2

## REVIEW OF LITERATURE

This chapter reviews some well-known nonparametric tests for the completely randomized and randomized block design. It also discusses a two-sample nonparametric test for a mixed design and two K-sample nonparametric tests for a mixed design. In this case, a mixed design is a combination of a randomized complete block design (or repeated measures design) and a completely randomized design.

### 2.1. Rank-based Procedures for a Mixed Two-sample Design

A simple nonparametric rank-based procedure for a mixed design consisting of paired observations and two sets of independent observations from two populations was introduced by Dubinicka, Blare and Hettmansperger (2002). This procedure is used to testing and estimation in mixed paired and two sample designs. Population 1 represented the observations from one treatment and population 2 represented the observations from another treatment. The difference between the treatments,  $\Delta$ , was tested combining the paired data and the independent samples until the null hypothesis being no differences in treatments.

The test statistic is the sum of the Wilcoxon signed rank statistic ( $S^+$ ) and the Mann-Whitney statistic ( $U^+$ ). They are tests for paired data and independent samples, respectively. Let

$$T^+(\Delta) = S^+(\Delta) + U^+(\Delta) \tag{1}$$

Dubinicka et al. (2002) also introduced weighted rank test statistic  $T^*$  which based on the Wilcoxon signed rank statistic ( $S^+$ ) and the Mann-Whitney statistic ( $U^+$ ).

Let

$$T^* = \frac{2N}{(nN + 2n_1n_2)(n+1)} S^+ + \frac{2}{nN + 2n_1n_2} U^+ \quad (2)$$

Where  $n$  is sample size of paired data,  $n_1$  and  $n_2$  are sample sizes of two independent samples,  $N=n_1+n_2$ . Under  $H_0 : \Delta = 0$ , the two statistics above both have asymptotic normal distribution.

Dubinicka, Blare and Hettmansperger (2002) found that the  $T^*$ , the weighted rank statistic, is generally more efficient than  $T^+$  though  $T^+$  have the similar power with  $T^*$  if  $n \geq n_1 + n_2$ .

## 2.2. Page's Test

Page's test, for multiple comparisons between ordered correlated variables, is a nonparametric procedure that is appropriate for a randomized complete block design. It was proposed by Page (1963). It is also known as Page's trend test or Page's L test. It is a repeated measure trend test and a test for a randomized complete block design (additive model).

The null hypothesis is  $H_0: \tau_1 = \tau_2 = \dots = \tau_k$ .

The ordered alternative hypothesis is  $H_1: \tau_1 \leq \tau_2 \leq \dots \leq \tau_k$  (At least one inequality is strict), where  $\tau_k$  is  $k^{\text{th}}$  treatment effect.

The test statistic is  $L = \sum_{j=1}^k jR_j$ , where  $R_j$  is  $j^{\text{th}}$  treatment rank sum, based on the within block ranks of original observations. Under the null hypothesis, the distribution of Page's test statistics is asymptotical normal distribution with mean  $bk(k+1)^2/4$  and variance  $b(k^3 - k)^2/144(k-1)$ , where  $b$  is the number of blocks, and  $k$  is the number of treatments. Therefore, the test statistic  $L$  could be standardized to  $Z_p$  by the formula (3).

$$Z_p = \frac{L - [bk(k+1)^2/4]}{\sqrt{b(k^3 - k)^2/144(k-1)}} \quad (3)$$

### 2.3. Jonckheere-Terpstra Test

Jonckheere-Terpstra test, proposed by Terpstra (1952) and Jonckheere (1954), could be used in these situations which treatments are ordered in some way. It is a procedure that treatments are ordered alternatives in the  $k$ -sample case. Jonckheere-Terpstra test has more specific alternative hypothesis that the population medians are ordered in a particular direction.

The null hypothesis is  $H_0: \tau_1 = \tau_2 = \dots = \tau_k$ .

The ordered alternative hypothesis is  $H_1: \tau_1 \leq \tau_2 \leq \dots \leq \tau_k$  (At least one inequality is strict), where  $\tau_k$  is  $k^{\text{th}}$  treatment effect.

The test statistic is  $J = \sum_{i < j} U_{ij}$ , where  $U_{ij}$  is the number of pairs of observations ( $X_{ia}, X_{ib}$ ) in which  $X_{ia}$  is less than  $X_{ib}$ . Furthermore,  $X_{ia}$  is the  $a^{\text{th}}$  observation in  $i^{\text{th}}$  treatment sample,  $a=1,2,\dots,n_i$  and  $X_{ib}$  is the  $b^{\text{th}}$  observation in  $j^{\text{th}}$  treatment sample,  $b=1,2,\dots,n_j$ .

Under the null hypothesis, the distribution of Jonckheere-Terpstra test statistic is asymptotical normal distribution with mean  $(N^2 - \sum_{i=1}^k n_i^2)/4$  and variance  $[N^2(2N+3) - \sum_{i=1}^k n_i^2(2n_i+3)]/72$ , where  $N$  is the total sample size of all treatments, and  $n_i$  is the sample size of the  $i^{\text{th}}$  treatment. Therefore, the test statistic  $J$  could be standardized to  $Z_{JT}$  by the formula (4).

$$Z_{JT} = \frac{J - [(N^2 - \sum_{i=1}^k n_i^2)/4]}{\sqrt{[N^2(2N+3) - \sum_{i=1}^k n_i^2(2n_i+3)]/72}} \quad (4)$$

#### 2.4. Two Tests for the Mixed Design

Magel, Terpstra, Wen (2009) proposed two tests for a mixed design consisting of a randomized complete block design (or repeated measures design) and a completely randomized design. The two tests are both combinations of Page's test and the Jonckheere-Terpstra test.

Recall, the standardized version of Page's test is given as follow.

$$Z_p = \frac{L - [bk(k+1)^2/4]}{\sqrt{b(k^3 - k)^2/144(k-1)}} \quad (5)$$

Recall, the standardized version of Jonckheere-Terpstra test is given as follows:

$$Z_{JT} = \frac{J - [(N^2 - \sum_{i=1}^k n_i^2)/4]}{\sqrt{[N^2(2N+3) - \sum_{i=1}^k n_i^2(2n_i+3)]/72}} \quad (6)$$



The first proposed test statistic by Magel, Terpstra, Wen (2009), denoted by Comb for the mixed design, is given in (7).

$$Z_{comb} = \frac{Z_p + Z_{JT}}{\sqrt{2}} \quad (7)$$

Since  $Z_p$  and  $Z_{JT}$  have an asymptotic standard normal distribution, Comb has an asymptotic standard normal distribution under the null hypotheses. The rejection region for testing  $H_0: \tau_1 = \tau_2 = \dots = \tau_k$  and  $H_1: \tau_1 \leq \tau_2 \leq \dots \leq \tau_k$  (at least one inequality strict) is to reject if  $Z_{comb} > Z_\alpha$  where  $Z_\alpha$  is the  $(1-\alpha)$  percentile of a standard normal distribution.

The second proposed test, proposed by Magel, Terpstra, Wen (2009), denoted by CombII, is given in (7).

$$Z_{combII} = \frac{L + J - E(0)}{\sqrt{Var(0)}} \quad (8)$$

Where

$$E(0) = \frac{bk(k+1)^2 + (N^2 - \sum_{i=1}^k n_i^2)}{4} \quad (9)$$

$$Var(0) = \frac{b(k^3 - k)^2}{144(k-1)} + \frac{N^2(2N+3) - \sum_{i=1}^k n_i^2(2n_i+3)}{72} \quad (10)$$

In the equation (8), L is Page's test statistic and J is JT test statistic. Like the proposed test Comb, the proposed test CombII has an asymptotic standard normal distribution under the null hypotheses  $H_0: \tau_1 = \tau_2 = \dots = \tau_k$ . The null hypothesis is

rejected if is  $Z_{combII} > Z_{\alpha}$  where  $Z_{\alpha}$  is the  $(1-\alpha)$  percentile of a standard normal distribution.

The main difference between the tests Comb and CombII is that in Comb the JT test and the Page test are standardized first and then added, and in CombII, they are added first and then standardized.

Magel et al. (2009) conducted a Monte Carlo simulation study to compare the power of Page's test and the tests, Comb and CombII. The results of their simulation study show that the power of at least one of the two proposed test is higher than Page's test. This means it was better to use one of the proposed tests for the mixed design instead of throwing out observations and using Page's test.

Their findings are based on no block effect for the completely randomized design portion. We wanted to determine if adding a block effect changes the results. A simulation study was designed to study this effect. Details of the simulation study are given in the Chapter 3.

# CHAPTER 3

## SIMULATION STUDY

Details of a Monte Carlo simulation study for the mixed design are introduced in this chapter. The simulation is conducted to estimate the power of the two tests for the mixed design, Comb and CombII, which are given in Chapter 3.

The main difference between this study versus the study conducted by Magel et al. (2009) is taking into consideration the block effect added in the randomized completely design portion of the mixed design. The number of blocks and the number of additional observations are the same as in Magel et al. (2009) simulation. The blocks are fixed. Two different variances of the block effect, 0.25 and 1, are compared in the simulation.

Three distributions, including normal distribution, exponential distribution, and t-distribution with  $DF=3$ , are employed to generate the samples. Different numbers of blocks and different numbers of additional observations (both equal and unequal numbers for the treatments) are considered. Various location parameter arrangements are used in the simulation. Each combination of the distributions, sample sizes, location and block variance is simulated with a size of 5000. The estimated power which is defined as the numbers of times the null hypothesis was rejected divided by 5000 is used to compare tests.

The estimated powers of Comb, CombII and Page's tests are compared. A difference percentage between the two proposed tests will be calculated by

$$D = \frac{100 * (POWER_{comb} - POWER_{combl})}{POWER_{comb}} \quad (8)$$

All of simulations are conducted by SAS9.2.

### 3.1. Distributions Considered

Three underlying population distributions are considered in the simulation study. The block effect is always assumed to have a normal distribution, but two different variances are considered, 0.25 and 1.

The Call Rannor routine (call rannor (seed, x)) is used to generate normal distribution data. This Call Rannor routine updates seed and returns a variate x which is generated from a standard normal distribution. The Box-Muller transformation of Ranuni uniform variates is used.

The Call Ranexp routine (call ranexp (seed, x)) is used to generate exponential distribution data. The Call Ranexp routine updates seeds and returns a variate that is generated from an exponential distribution with parameter 1. An inverse transform method applied to a Ranuni uniform variate is used.

Two steps are performed in generated t-distribution data. First, Call Ranuni routine (call Ranuni (seed, x) is used to update the seed and return a variate x that is generated from the uniform distribution on the interval (0, 1). Second, the subroutine TINV(x, 3) is used to return the xth quantile from the Student's t distribution with degrees of freedom 3. In this case, the value of X is the value returned from the subroutine Ranuni.

### 3.2. Sample Sizes Considered

The objective of the simulation study is to compare the power of the different tests

(Page's test, Comb and CombII) for the mixed design. The study considers block sizes of 16, 32, and 40. Various equal sample sizes,  $n$ , are at first considered for the additional observations. The following cases are considered for  $k=3, 4$  and  $5$ .

- 1) Page's test: block = 16; JT test:  $n = 4$
- 2) Page's test: block = 16; JT test:  $n = 8$
- 3) Page's test: block = 32; JT test:  $n = 4$
- 4) Page's test: block = 32; JT test:  $n = 8$
- 5) Page's test: block = 40; JT test:  $n = 5$
- 6) Page's test: block = 40; JT test:  $n = 10$
- 7) Page's test: block = 40; JT test:  $n = 20$

In the second phase of the simulation study, unequal sample sizes are used for the additional observations beyond those of the randomized complete block design. Sample sizes are chosen so that the first sample size is twice the size of the others. The following cases are considered:

For  $K=3$ :

- 1) Page's test: block = 16; JT test:  $n_1 = 8, n_2 = n_3 = 4$
- 2) Page's test: block = 32; JT test:  $n_1 = 8, n_2 = n_3 = 4$
- 3) Page's test: block = 40; JT test:  $n_1 = 10, n_2 = n_3 = 5$

For  $K=4$ :

- 1) Page's test: block = 16; JT test:  $n_1 = 8, n_2 = n_3 = n_4 = 4$
- 2) Page's test: block = 32; JT test:  $n_1 = 8, n_2 = n_3 = n_4 = 4$
- 3) Page's test: block = 40; JT test:  $n_1 = 10, n_2 = n_3 = n_4 = 5$

For  $K=5$ :

- 1) Page's test: block = 16; JT test:  $n_1 = 8, n_2 = n_3 = n_4 = n_5 = 4$
- 2) Page's test: block = 32; JT test:  $n_1 = 8, n_2 = n_3 = n_4 = n_5 = 4$
- 3) Page's test: block = 40; JT test:  $n_1 = 10, n_2 = n_3 = n_4 = n_5 = 5$

### 3.3. Location Parameters

The simulation study only considers increasing order alternatives. Power is estimated for various parameter arrangements.

For  $K=3$ , 14 different location parameter arrangements are considered. These include arrangements of the following types:

- (1) There is equal spacing between the parameters, for example (0.2, 0.5, 0.8);
- (2) Two of the three parameters are equal while the other one is different. These parameters could be the first two such as (0, 0, 0.5). The equal parameters could be the last two such as (0.5, 1, 1);
- (3) Spacing between two of the parameters is twice the spacing between the other two parameters, for example (0.1, 0.3, 0.7);
- (4) Several other arrangements of unequal spacing between the parameters, for example (0, 0.1, 0.8).

For  $K=4$ , 17 different location parameter arrangements are considered. These include arrangements of the following types:

- (1) There is equal spacing between the parameters, for example (0, 0.1, 0.2, 0.3);
- (2) The first two parameters are equal and the last two parameters are equal, such as (0, 0, 0.5, 0.5);

- (3) Two of the four parameters are equal while the other two are different, where the equal two could be the first two such as (0, 0, 0.1, 0.6), also, the equal two could be the last two such as (0, 0.125, 0.25, 0.25);
- (4) Spacing between first two of the parameters is the same as the spacing between the last two parameters, for example (0, 0.5, 0.5, 1);
- (5) Spacing between the middle two parameters is twice the spacing between the first two, while spacing between the last two parameters is twice the spacing between the middle two parameters, such as (0, 0.05, 0.15, 0.35);
- (6) Spacing between the middle two parameters is n times the spacing between the first two, while spacing between the last two parameters is the same as the spacing between the middle two, where n could be two, such as (0.05, 0.1, 0.3, 0.5); or n could be four, such as (0.1, 0.2, 0.6, 1);
- (7) Several other arrangements of unequal spacing between the parameters, such as (0, 0, 0.1, 0.6);

For  $K=5$ , 18 different location parameter arrangements are considered. These include arrangements of the following types:

- (1) There is equal spacing between the parameters, for example (0.05, 0.15, 0.25, 0.35, 0.45);
- (2) The first four of the five parameters are equal while the last one is different, such as (0, 0, 0, 0, 0.5);
- (3) The first three of the five parameters are equal and the last two are equal to each other, but different from the rest, such as (0, 0, 0, 0.35, 0.35);
- (4) The first three of the five parameters are equal and the last two are different, such as (0, 0, 0, 0.125, 0.25);

- (5) The first and last parameters are different and the middle three are the same, such as (0, 0.125, 0.125, 0.125, 0.25);
- (6) The spacing between parameters doubles each time, such as (0, 0.025, 0.15, 0.125, 0.35, 0.75) ;
- (7) Several other arrangements of unequal spacing between the parameters, such as (0, 0.05, 0.2, 0.3, 0.4, 0.5).



# CHAPTER 4

## RESULTS OF SIMULATION STUDY

The results of simulation study are shown in this chapter.

Powers of the two tests for the mixed design and Page's test were estimated for a variety of different distributions and treatment means. The number of blocks in combination with the additional numbers of observations analyzed in the completely randomized design portion also varied as well as the variance in the block effect added to the observations analyzed as a completely randomized design portion.

For each combination of number of treatments, type of underlying distribution, number of blocks in the randomized complete block design portion, the estimated rejection percentages of Page's test and the two tests for the mixed design are given for different sets of location parameters in the tables. The variance of the block effect added to observations analyzed in the completely randomized design portion was also allowed to vary between 0.25 and 1. The largest estimated rejection percentage for each arrangement of location parameters is highlighted in all the tables.

The power percentage differences of the estimated powers for the two proposed tests are also given in the tables. Recall the power percentage difference between the two proposed tests, mentioned in Chapter 4, is calculated by the formula shown below.

$$D = \frac{100 * (POWER_{comb} - POWER_{combl})}{POWER_{comb}}$$

Based on the formula of power percentage difference, a positive value indicates the

test Comb has the higher estimated power while a negative value indicates that the second test, CombII, has the higher estimated power.

#### **4.1. Equal Block Numbers for JT Test**

Tables 1-126 give the results of the estimated powers for equal sample sizes in the portion analyzed as a completely randomized design. Location parameter arrangements, rejection percentage of Page's test, rejection percentages of the two tests for the mixed design, and the power percentage difference (D) are given in each of the tables. Different underlying distributions and sample sizes are considered. The percentage of the design that is analyzed as the completely randomized design portion also varies.

For each treatment combination, the numbers of blocks for randomized complete block design portion are 16, 32 and 40, respectively. The corresponding sample sizes that for the portion analyzed as completely randomized design are 1/8, 1/4 and 1/2 of the sample size of the randomized complete block portion.

Tables 1-14 give the results for  $K=3$ , and underlying normal distributions. Table 15-28 give the results for  $K=3$ , and underlying exponential distributions. Table 29-42 give the results for  $K=3$ , and underlying t-distributions with three degrees of freedom.

Table 43-56 give the results for  $K=4$ , and underlying normal distributions. Table 57-70 give the results for  $K=4$ , and underlying exponential distributions. Table 71-84 give the results for  $K=4$ , and underlying t-distributions with three degrees of freedom.

Table 85-98 give the results for  $K=5$ , and underlying normal distributions. Table 99-112 give the results for  $K=5$ , and underlying exponential distributions. Table 113-126 give the results for  $K=4$ , and underlying t-distributions with three degrees of freedom.

**Table 2. Percentage of Rejection for K=3, Normal Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.42</b>	3.92	4.04	-3.06
0	0	0.5	29.94	<b>33.46</b>	31.76	5.08
0	0.5	0.5	30.14	<b>33.66</b>	32.16	4.46
0.05	0.25	0.5	26.94	<b>29.52</b>	28.36	3.93
0	0.3	0.5	30.54	<b>33.76</b>	32.78	2.90
0	0	1	73.76	<b>80.12</b>	77.96	2.70
0	1	1	74.1	<b>79.34</b>	77.04	2.90
0	0.5	1	75.04	<b>80.74</b>	78.6	2.65
0.5	0.5	1	29.94	<b>33.46</b>	31.76	5.08
0.5	1	1	30.14	<b>33.66</b>	32.16	4.46
0.1	0.5	1	66.74	<b>73.44</b>	70.74	3.68
0.1	0.3	0.7	38.8	<b>43.44</b>	41.74	3.91
0.2	0.5	0.8	39.02	<b>43.72</b>	41.74	4.53
0	0.25	0.5	30.44	<b>33.76</b>	32.44	3.91
0	0.1	0.8	56.96	<b>63.78</b>	61.42	3.70

**Table 3. Percentage of Rejection for K=3, Normal Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.42</b>	3.16	3.00	5.06
0	0	0.5	<b>29.94</b>	29.12	27.26	6.39
0	0.5	0.5	<b>30.14</b>	30.04	28.04	6.66
0.05	0.25	0.5	<b>26.94</b>	25.98	24.52	5.62
0	0.3	0.5	<b>30.54</b>	30.08	28.06	6.72
0	0	1	73.76	<b>76.96</b>	74.42	3.30
0	1	1	74.10	<b>77.22</b>	73.90	4.30
0	0.5	1	75.04	<b>78.1</b>	75.46	3.38
0.5	0.5	1	<b>29.94</b>	29.12	27.26	6.39
0.5	1	1	<b>30.14</b>	30.04	28.04	6.66
0.1	0.5	1	66.74	<b>70.14</b>	67.28	4.08
0.1	0.3	0.7	38.8	<b>39.48</b>	36.98	6.33
0.2	0.5	0.8	39.02	<b>39.3</b>	37.12	5.55
0	0.25	0.5	<b>30.44</b>	30.24	28.48	5.82
0	0.1	0.8	56.96	<b>59.5</b>	57.16	3.93

**Table 4. Percentage of Rejection for K=3, Normal Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.10	4.16	3.50	15.87
0	0	0.5	29.22	40.78	29.92	26.63
0	0.5	0.5	29.04	41.02	29.94	27.01
0.05	0.25	0.5	25.38	35.24	26.32	25.31
0	0.3	0.5	29.90	41.46	30.08	27.45
0	0	1	72.30	89.42	74.34	16.86
0	1	1	72.74	88.74	75.32	15.12
0	0.5	1	72.66	89.70	76.28	14.96
0.5	0.5	1	29.22	40.78	29.92	26.63
0.5	1	1	29.04	41.02	29.94	27.01
0.1	0.5	1	65.34	83.68	67.82	18.95
0.1	0.3	0.7	38.60	53.32	39.08	26.71
0.2	0.5	0.8	39.14	53.04	38.92	26.62
0	0.25	0.5	29.98	41.46	30.40	26.68
0	0.1	0.8	56.20	74.84	57.96	22.55

**Table 5. Percentage of Rejection for K=3, Normal Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.10	3.26	2.02	38.04
0	0	0.5	29.22	35.20	20.52	41.70
0	0.5	0.5	29.04	35.28	20.60	41.61
0.05	0.25	0.5	25.38	29.86	17.76	40.52
0	0.3	0.5	29.90	35.74	20.94	41.41
0	0	1	72.30	86.12	65.04	24.48
0	1	1	72.74	85.80	65.52	23.64
0	0.5	1	72.66	87.06	66.70	23.39
0.5	0.5	1	29.22	35.20	20.52	41.70
0.5	1	1	29.04	35.28	20.60	41.61
0.1	0.5	1	65.34	79.66	56.94	28.52
0.1	0.3	0.7	38.60	47.48	28.06	40.90
0.2	0.5	0.8	39.14	47.38	28.04	40.82
0	0.25	0.5	29.98	35.66	20.84	41.56
0	0.1	0.8	56.20	69.12	45.90	33.59

**Table 6. Percentage of Rejection for K=3, Normal Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.60</b>	4.22	4.04	4.27
0	0	0.5	<b>48.90</b>	48.50	<b>50.08</b>	-3.26
0	0.5	0.5	<b>49.52</b>	48.82	<b>50.46</b>	-3.36
0.05	0.25	0.5	<b>43.16</b>	42.58	<b>43.54</b>	-2.25
0	0.3	0.5	<b>49.48</b>	49.26	<b>50.42</b>	-2.35
0	0	1	<b>94.56</b>	93.84	<b>94.90</b>	-1.13
0	1	1	<b>94.52</b>	94.30	<b>95.22</b>	-0.98
0	0.5	1	<b>94.82</b>	94.48	<b>95.36</b>	-0.93
0.5	0.5	1	<b>48.90</b>	48.50	<b>50.08</b>	-3.26
0.5	1	1	<b>49.52</b>	48.82	<b>50.46</b>	-3.36
0.1	0.5	1	<b>90.36</b>	90.36	<b>91.52</b>	-1.28
0.1	0.3	0.7	<b>62.42</b>	63.02	<b>64.32</b>	-2.06
0.2	0.5	0.8	<b>62.72</b>	62.94	<b>64.56</b>	-2.57
0	0.25	0.5	<b>49.66</b>	49.02	<b>50.44</b>	-2.90
0	0.1	0.8	<b>83.66</b>	82.68	<b>84.18</b>	-1.81

**Table 7. Percentage of Rejection for K=3, Normal Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.60</b>	3.40	3.44	-1.18
0	0	0.5	<b>48.9</b>	45.08	47.08	-4.44
0	0.5	0.5	<b>49.52</b>	45.82	47.82	-4.36
0.05	0.25	0.5	<b>43.16</b>	39.30	41.24	-4.94
0	0.3	0.5	<b>49.48</b>	45.80	48.10	-5.02
0	0	1	<b>94.56</b>	93.66	<b>94.66</b>	-1.07
0	1	1	<b>94.52</b>	93.74	<b>94.58</b>	-0.90
0	0.5	1	<b>94.82</b>	94.26	<b>95.08</b>	-0.87
0.5	0.5	1	<b>48.90</b>	45.08	47.08	-4.44
0.5	1	1	<b>49.52</b>	45.82	47.82	-4.36
0.1	0.5	1	<b>90.36</b>	89.48	<b>90.98</b>	-1.68
0.1	0.3	0.7	<b>62.42</b>	59.86	61.96	-3.51
0.2	0.5	0.8	<b>62.72</b>	60.04	62.22	-3.63
0	0.25	0.5	<b>49.66</b>	45.78	47.90	-4.63
0	0.1	0.8	<b>83.66</b>	81.32	82.80	-1.82

**Table 8. Percentage of Rejection for K=3, Normal Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.38</b>	4.08	3.68	9.80
0	0	0.5	48.64	<b>56.32</b>	42.16	25.14
0	0.5	0.5	49.24	<b>56.72</b>	42.00	25.95
0.05	0.25	0.5	43.10	<b>49.08</b>	36.62	25.39
0	0.3	0.5	49.72	<b>56.82</b>	42.46	25.27
0	0	1	94.36	<b>97.42</b>	90.00	7.62
0	1	1	94.42	<b>97.44</b>	89.94	7.70
0	0.5	1	94.36	<b>97.54</b>	90.66	7.05
0.5	0.5	1	48.64	<b>56.32</b>	42.16	25.14
0.5	1	1	49.24	<b>56.72</b>	42.00	25.95
0.1	0.5	1	89.90	<b>94.60</b>	84.42	10.76
0.1	0.3	0.7	62.58	<b>71.36</b>	54.64	23.43
0.2	0.5	0.8	62.68	<b>71.88</b>	54.58	24.07
0	0.25	0.5	49.58	<b>56.88</b>	42.30	25.63
0	0.1	0.8	82.82	<b>89.56</b>	76.44	14.65

**Table 9. Percentage of Rejection for K=3, Normal Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.38</b>	3.12	1.80	42.31
0	0	0.5	48.64	<b>51.98</b>	33.34	35.86
0	0.5	0.5	49.24	<b>52.04</b>	33.34	35.93
0.05	0.25	0.5	43.10	<b>44.32</b>	28.08	36.64
0	0.3	0.5	49.72	<b>51.98</b>	33.76	35.05
0	0	1	94.36	<b>97.04</b>	86.54	10.82
0	1	1	94.42	<b>96.84</b>	87.02	10.14
0	0.5	1	94.36	<b>97.24</b>	87.70	9.81
0.5	0.5	1	48.64	<b>51.98</b>	33.34	35.86
0.5	1	1	49.24	<b>52.04</b>	33.34	35.93
0.1	0.5	1	89.90	<b>93.68</b>	80.74	13.81
0.1	0.3	0.7	62.58	<b>67.12</b>	46.80	30.27
0.2	0.5	0.8	62.68	<b>67.02</b>	46.20	31.07
0	0.25	0.5	49.58	<b>52.04</b>	33.64	35.36
0	0.1	0.8	82.82	<b>87.50</b>	70.28	19.68

**Table 10. Percentage of Rejection for K=3, Normal Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.58</b>	4.38	4.64	-5.94
0	0	0.5	<b>59.28</b>	56.54	56.86	-0.57
0	0.5	0.5	<b>59.14</b>	57.14	57.34	-0.35
0.05	0.25	0.5	<b>52.42</b>	49.06	49.36	-0.61
0	0.3	0.5	<b>59.50</b>	57.22	57.38	-0.28
0	0	1	<b>98.68</b>	97.62	97.58	0.04
0	1	1	<b>98.58</b>	97.58	97.50	0.08
0	0.5	1	<b>98.72</b>	98.06	97.90	0.16
0.5	0.5	1	<b>59.28</b>	56.54	56.86	-0.57
0.5	1	1	<b>59.14</b>	57.14	57.34	-0.35
0.1	0.5	1	<b>96.46</b>	95.12	95.04	0.08
0.1	0.3	0.7	<b>72.86</b>	70.12	70.32	-0.29
0.2	0.5	0.8	<b>72.86</b>	70.64	70.74	-0.14
0	0.25	0.5	<b>59.70</b>	56.76	57.00	-0.42
0	0.1	0.8	<b>91.32</b>	89.40	89.42	-0.02

**Table 11. Percentage of Rejection for K=3, Normal Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.58</b>	3.52	3.64	-3.41
0	0	0.5	<b>59.28</b>	53.02	53.12	-0.19
0	0.5	0.5	<b>59.14</b>	53.9	54.14	-0.45
0.05	0.25	0.5	<b>52.42</b>	45.88	43.12	6.02
0	0.3	0.5	<b>59.50</b>	53.50	53.74	-0.45
0	0	1	<b>98.68</b>	97.34	97.32	0.02
0	1	1	<b>98.58</b>	97.40	97.38	0.02
0	0.5	1	<b>98.72</b>	97.78	97.74	0.04
0.5	0.5	1	<b>59.28</b>	53.02	53.12	-0.19
0.5	1	1	<b>59.14</b>	53.90	54.14	-0.45
0.1	0.5	1	<b>96.46</b>	94.66	94.64	0.02
0.1	0.3	0.7	<b>72.86</b>	67.72	67.90	-0.27
0.2	0.5	0.8	<b>72.86</b>	68.10	68.16	-0.09
0	0.25	0.5	<b>59.70</b>	53.48	53.62	-0.26
0	0.1	0.8	<b>91.32</b>	88.40	88.44	-0.05

**Table 12. Percentage of Rejection for K=3, Normal Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.46</b>	4.62	4.10	11.26
0	0	0.5	59.68	<b>64.54</b>	44.98	30.31
0	0.5	0.5	60.26	<b>64.80</b>	45.68	29.51
0.05	0.25	0.5	52.92	<b>57.18</b>	39.28	31.30
0	0.3	0.5	60.22	<b>65.26</b>	45.90	29.67
0	0	1	98.26	<b>99.32</b>	91.90	7.47
0	1	1	97.98	<b>99.22</b>	92.48	6.79
0	0.5	1	98.40	<b>99.30</b>	93.10	6.24
0.5	0.5	1	59.68	<b>64.54</b>	44.98	30.31
0.5	1	1	60.26	<b>64.80</b>	45.68	29.51
0.1	0.5	1	96.16	<b>98.14</b>	87.62	10.72
0.1	0.3	0.7	74.10	<b>79.24</b>	57.96	26.86
0.2	0.5	0.8	74.34	<b>79.44</b>	58.26	26.66
0	0.25	0.5	60.68	<b>65.02</b>	46.06	29.16
0	0.1	0.8	91.32	<b>94.44</b>	79.58	15.73

**Table 13. Percentage of Rejection for K=3, Normal Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.46</b>	3.44	2.20	36.05
0	0	0.5	59.68	<b>60.12</b>	35.66	40.69
0	0.5	0.5	60.26	<b>60.92</b>	34.96	42.61
0.05	0.25	0.5	52.92	<b>52.92</b>	29.98	43.35
0	0.3	0.5	60.22	<b>61.00</b>	35.94	41.08
0	0	1	98.26	<b>99.12</b>	89.16	10.05
0	1	1	97.98	<b>99.10</b>	89.28	9.91
0	0.5	1	98.40	<b>99.20</b>	89.70	9.58
0.5	0.5	1	59.68	<b>60.12</b>	35.66	40.69
0.5	1	1	60.26	<b>60.92</b>	34.96	42.61
0.1	0.5	1	96.16	<b>97.84</b>	82.88	15.29
0.1	0.3	0.7	74.10	<b>75.64</b>	48.96	35.27
0.2	0.5	0.8	74.34	<b>76.22</b>	48.90	35.84
0	0.25	0.5	60.68	<b>60.80</b>	36.06	40.69
0	0.1	0.8	91.32	<b>93.60</b>	73.00	22.01



**Table 14. Percentage of Rejection for K=3, Normal Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.32</b>	4.60	3.60	21.74
0	0	0.5	59.88	<b>75.48</b>	45.96	39.11
0	0.5	0.5	60.38	<b>75.96</b>	46.84	38.34
0.05	0.25	0.5	53.02	<b>67.84</b>	40.10	40.89
0	0.3	0.5	61.14	<b>76.26</b>	47.22	38.08
0	0	1	98.02	<b>99.88</b>	94.68	5.21
0	1	1	98.40	<b>99.88</b>	94.28	5.61
0	0.5	1	98.20	<b>99.88</b>	95.14	4.75
0.5	0.5	1	59.88	<b>75.48</b>	45.96	39.11
0.5	1	1	60.38	<b>75.96</b>	46.84	38.34
0.1	0.5	1	95.90	<b>99.52</b>	90.24	9.32
0.1	0.3	0.7	73.90	<b>87.88</b>	60.68	30.95
0.2	0.5	0.8	74.50	<b>87.22</b>	60.82	30.27
0	0.25	0.5	60.90	<b>76.22</b>	47.16	38.13
0	0.1	0.8	91.44	<b>98.24</b>	82.32	16.21

**Table 15. Percentage of Rejection for K=3, Normal Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.32</b>	3.48	1.62	53.45
0	0	0.5	59.88	<b>69.98</b>	31.70	54.70
0	0.5	0.5	60.38	<b>70.46</b>	31.74	54.95
0.05	0.25	0.5	53.02	<b>62.04</b>	26.82	56.77
0	0.3	0.5	61.14	<b>70.80</b>	31.98	54.83
0	0	1	98.02	<b>99.80</b>	88.94	10.88
0	1	1	98.40	<b>99.82</b>	89.12	10.72
0	0.5	1	98.20	<b>99.78</b>	89.78	10.02
0.5	0.5	1	59.88	<b>69.98</b>	31.70	54.70
0.5	1	1	60.38	<b>70.46</b>	31.74	54.95
0.1	0.5	1	95.90	<b>99.02</b>	81.84	17.35
0.1	0.3	0.7	73.90	<b>84.28</b>	45.82	45.63
0.2	0.5	0.8	74.50	<b>84.20</b>	45.20	46.32
0	0.25	0.5	60.90	<b>70.94</b>	32.18	54.64
0	0.1	0.8	91.44	<b>97.26</b>	70.86	27.14

**Table 16. Percentage of Rejection for K=3, Exponential Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.48</b>	3.86	3.72	3.63
0	0	0.5	51.24	<b>53.5</b>	50.7	5.23
0	0.5	0.5	51.44	<b>53.18</b>	51.00	4.10
0.05	0.25	0.5	47.54	<b>48.76</b>	46.26	5.13
0	0.3	0.5	54.32	<b>56.36</b>	53.6	4.90
0	0	1	90.34	<b>94.14</b>	92.62	1.61
0	1	1	88.80	<b>92.36</b>	90.42	2.10
0	0.5	1	93.38	<b>95.74</b>	94.66	1.13
0.5	0.5	1	51.24	<b>53.5</b>	50.7	5.23
0.5	1	1	51.44	<b>53.18</b>	51.00	4.10
0.1	0.5	1	89.42	<b>92.56</b>	90.72	1.99
0.1	0.3	0.7	65.08	<b>68.6</b>	66.00	3.79
0.2	0.5	0.8	65.50	<b>69.44</b>	66.18	4.69
0	0.25	0.5	54.90	<b>55.96</b>	53.4	4.57
0	0.1	0.8	81.02	<b>86.46</b>	83.7	3.19

**Table 17. Percentage of Rejection for K=3, Exponential Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.48</b>	3.2	3.08	3.75
0	0	0.5	<b>51.24</b>	48.52	44.86	7.54
0	0.5	0.5	<b>51.44</b>	48.42	45.4	6.24
0.05	0.25	0.5	<b>47.54</b>	44.08	40.54	8.03
0	0.3	0.5	<b>54.32</b>	51.46	47.70	7.31
0	0	1	90.34	<b>92.3</b>	90.12	2.36
0	1	1	88.80	<b>89.9</b>	87.86	2.27
0	0.5	1	93.38	<b>94.34</b>	92.52	1.93
0.5	0.5	1	<b>51.24</b>	48.52	44.86	7.54
0.5	1	1	<b>51.44</b>	48.42	45.40	6.24
0.1	0.5	1	89.42	<b>90.38</b>	87.98	2.66
0.1	0.3	0.7	<b>65.08</b>	64.16	60.10	6.33
0.2	0.5	0.8	<b>65.50</b>	64.62	60.8	5.91
0	0.25	0.5	<b>54.90</b>	51.70	47.70	7.74
0	0.1	0.8	81.02	<b>82.66</b>	79.52	3.80

**Table 18. Percentage of Rejection for K=3, Exponential Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.48</b>	3.86	2.62	32.12
0	0	0.5	51.24	<b>62.88</b>	42.68	32.12
0	0.5	0.5	51.44	<b>62.26</b>	43.02	30.90
0.05	0.25	0.5	47.54	<b>57.54</b>	38.38	33.30
0	0.3	0.5	54.32	<b>64.96</b>	44.60	31.34
0	0	1	90.34	<b>98.22</b>	89.04	9.35
0	1	1	88.80	<b>96.68</b>	86.14	10.90
0	0.5	1	93.38	<b>98.60</b>	90.84	7.87
0.5	0.5	1	51.24	<b>62.88</b>	42.68	32.12
0.5	1	1	51.44	<b>62.26</b>	43.02	30.90
0.1	0.5	1	89.42	<b>96.94</b>	85.22	12.09
0.1	0.3	0.7	65.08	<b>77.96</b>	56.80	27.14
0.2	0.5	0.8	65.50	<b>77.98</b>	57.24	26.60
0	0.25	0.5	54.90	<b>64.96</b>	44.40	31.65
0	0.1	0.8	81.02	<b>92.98</b>	76.70	17.51

**Table 19. Percentage of Rejection for K=3, Exponential Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.48</b>	2.74	1.30	52.55
0	0	0.5	51.24	<b>55.48</b>	27.78	49.93
0	0.5	0.5	51.44	<b>55.26</b>	28.66	48.14
0.05	0.25	0.5	47.54	<b>50.10</b>	24.46	51.18
0	0.3	0.5	54.32	<b>58.06</b>	29.84	48.60
0	0	1	90.34	<b>96.28</b>	78.00	18.99
0	1	1	88.80	<b>94.96</b>	76.92	19.00
0	0.5	1	93.38	<b>97.34</b>	81.60	16.17
0.5	0.5	1	51.24	<b>55.48</b>	27.78	49.93
0.5	1	1	51.44	<b>55.26</b>	28.66	48.14
0.1	0.5	1	89.42	<b>94.72</b>	73.50	22.40
0.1	0.3	0.7	65.08	<b>71.34</b>	40.62	43.06
0.2	0.5	0.8	65.50	<b>71.58</b>	41.64	41.83
0	0.25	0.5	54.90	<b>58.12</b>	30.08	48.25
0	0.1	0.8	81.02	<b>88.64</b>	61.92	30.14

**Table 20. Percentage of Rejection for K=3, Exponential Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.44</b>	3.56	3.54	0.56
0	0	0.5	<b>78.26</b>	74.26	76.36	-2.83
0	0.5	0.5	<b>76.98</b>	73.36	75.78	-3.30
0.05	0.25	0.5	<b>73.34</b>	69.26	71.58	-3.35
0	0.3	0.5	<b>80.46</b>	76.28	78.26	-2.60
0	0	1	<b>99.62</b>	99.30	99.44	-0.14
0	1	1	<b>99.22</b>	98.70	99.06	-0.36
0	0.5	1	<b>99.86</b>	99.40	99.68	-0.28
0.5	0.5	1	<b>78.26</b>	74.26	76.36	-2.83
0.5	1	1	<b>76.98</b>	73.36	75.78	-3.30
0.1	0.5	1	<b>99.34</b>	98.96	99.30	-0.34
0.1	0.3	0.7	<b>90.00</b>	87.24	88.68	-1.65
0.2	0.5	0.8	<b>89.92</b>	87.44	89.30	-2.13
0	0.25	0.5	<b>80.02</b>	76.20	78.60	-3.15
0	0.1	0.8	<b>97.68</b>	97.30	<b>97.82</b>	-0.53

**Table 21. Percentage of Rejection for K=3, Exponential Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.44</b>	3.02	3.02	0
0	0	0.5	<b>78.26</b>	70.94	73.54	-3.67
0	0.5	0.5	<b>76.98</b>	70.54	72.92	-3.37
0.05	0.25	0.5	<b>73.34</b>	65.62	68.34	-4.15
0	0.3	0.5	<b>80.46</b>	73.88	76.10	-3.00
0	0	1	<b>99.62</b>	99.20	99.40	-0.20
0	1	1	<b>99.22</b>	98.64	99.10	-0.47
0	0.5	1	<b>99.86</b>	99.50	99.68	-0.18
0.5	0.5	1	<b>78.26</b>	70.94	73.54	-3.67
0.5	1	1	<b>76.98</b>	70.54	72.92	-3.37
0.1	0.5	1	<b>99.34</b>	98.90	99.22	-0.32
0.1	0.3	0.7	<b>90.00</b>	85.52	87.52	-2.34
0.2	0.5	0.8	<b>89.92</b>	85.66	87.44	-2.08
0	0.25	0.5	<b>80.02</b>	73.74	76.22	-3.36
0	0.1	0.8	<b>97.68</b>	96.68	97.38	-0.72

**Table 22. Percentage of Rejection for K=3, Exponential Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.44</b>	3.92	3.04	22.45
0	0	0.5	<b>78.26</b>	<b>81.54</b>	62.06	23.89
0	0.5	0.5	76.98	<b>79.86</b>	60.96	23.67
0.05	0.25	0.5	73.34	<b>75.98</b>	56.32	25.88
0	0.3	0.5	80.46	<b>83.06</b>	63.92	23.04
0	0	1	99.62	<b>99.86</b>	98.30	1.56
0	1	1	99.22	<b>99.78</b>	96.74	3.05
0	0.5	1	99.86	<b>99.96</b>	98.42	1.54
0.5	0.5	1	78.26	<b>81.54</b>	62.06	23.89
0.5	1	1	76.98	<b>79.86</b>	60.96	23.67
0.1	0.5	1	99.34	<b>99.66</b>	96.64	3.03
0.1	0.3	0.7	90.00	<b>92.44</b>	77.62	16.03
0.2	0.5	0.8	89.92	<b>92.3</b>	77.68	15.84
0	0.25	0.5	80.02	<b>83.10</b>	63.94	23.06
0	0.1	0.8	97.68	<b>98.94</b>	92.70	6.31

**Table 23. Percentage of Rejection for K=3, Exponential Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.44</b>	2.88	1.66	42.36
0	0	0.5	<b>78.26</b>	77.22	50.58	34.50
0	0.5	0.5	<b>76.98</b>	75.34	50.06	33.55
0.05	0.25	0.5	<b>73.34</b>	71.12	45.12	36.56
0	0.3	0.5	<b>80.46</b>	78.90	53.38	32.34
0	0	1	99.62	<b>99.76</b>	96.36	3.41
0	1	1	99.22	<b>99.58</b>	94.88	4.72
0	0.5	1	<b>99.86</b>	99.82	97.08	2.74
0.5	0.5	1	<b>78.26</b>	77.22	50.58	34.50
0.5	1	1	<b>76.98</b>	75.34	50.06	33.55
0.1	0.5	1	99.34	<b>99.44</b>	94.00	5.47
0.1	0.3	0.7	<b>90.00</b>	89.82	67.86	24.45
0.2	0.5	0.8	89.92	<b>89.98</b>	68.32	24.07
0	0.25	0.5	<b>80.02</b>	79.06	53.18	32.73
0	0.1	0.8	97.68	<b>98.20</b>	87.40	11.00

**Table 24. Percentage of Rejection for K=3, Exponential Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.98</b>	3.26	3.48	-6.75
0	0	0.5	<b>87.90</b>	83.34	83.20	0.17
0	0.5	0.5	<b>86.54</b>	81.22	81.14	0.10
0.05	0.25	0.5	<b>84.02</b>	77.90	77.96	-0.08
0	0.3	0.5	<b>89.48</b>	84.48	84.52	-0.05
0	0	1	<b>99.96</b>	99.88	99.88	0.00
0	1	1	<b>99.94</b>	99.72	99.70	0.02
0	0.5	1	<b>99.98</b>	99.94	99.92	0.02
0.5	0.5	1	<b>87.90</b>	83.34	83.20	0.17
0.5	1	1	<b>86.54</b>	81.22	81.14	0.10
0.1	0.5	1	<b>99.94</b>	99.70	99.66	0.04
0.1	0.3	0.7	<b>95.76</b>	93.24	93.14	0.11
0.2	0.5	0.8	<b>95.98</b>	93.26	93.20	0.06
0	0.25	0.5	<b>89.20</b>	84.68	84.56	0.14
0	0.1	0.8	<b>99.52</b>	98.92	98.88	0.04

**Table 25. Percentage of Rejection for K=3, Exponential Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.98</b>	2.86	3.02	-5.59
0	0	0.5	<b>87.90</b>	81.00	80.96	0.05
0	0.5	0.5	<b>86.54</b>	78.90	78.98	-0.10
0.05	0.25	0.5	<b>84.02</b>	75.18	75.14	0.05
0	0.3	0.5	<b>89.48</b>	82.56	82.54	0.02
0	0	1	<b>99.96</b>	99.82	99.78	0.04
0	1	1	<b>99.94</b>	99.72	99.68	0.04
0	0.5	1	<b>99.98</b>	99.96	99.94	0.02
0.5	0.5	1	<b>87.90</b>	81.00	80.96	0.05
0.5	1	1	<b>86.54</b>	78.90	78.98	-0.10
0.1	0.5	1	<b>99.94</b>	99.68	99.66	0.02
0.1	0.3	0.7	<b>95.76</b>	92.04	91.96	0.09
0.2	0.5	0.8	<b>95.98</b>	92.14	92.00	0.15
0	0.25	0.5	<b>89.20</b>	82.66	82.58	0.10
0	0.1	0.8	<b>99.52</b>	98.58	98.5	0.08

**Table 26. Percentage of Rejection for K=3, Exponential Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.98</b>	3.5	2.78	20.57
0	0	0.5	<b>87.90</b>	<b>89.20</b>	66.30	25.67
0	0.5	0.5	86.54	<b>87.48</b>	64.74	25.99
0.05	0.25	0.5	84.02	<b>84.20</b>	59.30	29.57
0	0.3	0.5	89.48	<b>89.94</b>	68.02	24.37
0	0	1	99.96	<b>100.00</b>	98.52	1.48
0	1	1	99.94	<b>99.94</b>	97.58	2.36
0	0.5	1	99.98	<b>99.98</b>	98.84	1.14
0.5	0.5	1	87.90	<b>89.20</b>	66.30	25.67
0.5	1	1	86.54	<b>87.48</b>	64.74	25.99
0.1	0.5	1	99.94	<b>99.96</b>	97.46	2.50
0.1	0.3	0.7	95.76	<b>96.56</b>	80.50	16.63
0.2	0.5	0.8	95.98	<b>96.46</b>	80.60	16.44
0	0.25	0.5	89.20	<b>90.14</b>	68.18	24.36
0	0.1	0.8	99.52	<b>99.72</b>	94.56	5.17

**Table 27. Percentage of Rejection for K=3, Exponential Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.98</b>	2.48	1.32	46.77
0	0	0.5	<b>87.90</b>	85.18	52.46	38.41
0	0.5	0.5	<b>86.54</b>	84.14	51.66	38.60
0.05	0.25	0.5	<b>84.02</b>	79.96	45.56	43.02
0	0.3	0.5	<b>89.48</b>	86.90	54.64	37.12
0	0	1	<b>99.96</b>	99.96	96.96	3.00
0	1	1	<b>99.94</b>	99.92	96.00	3.92
0	0.5	1	<b>99.98</b>	99.96	97.64	2.32
0.5	0.5	1	<b>87.90</b>	85.18	52.46	38.41
0.5	1	1	<b>86.54</b>	84.14	51.66	38.60
0.1	0.5	1	<b>99.94</b>	99.90	94.94	4.96
0.1	0.3	0.7	<b>95.76</b>	95.30	70.16	26.38
0.2	0.5	0.8	<b>95.98</b>	95.20	71.00	25.42
0	0.25	0.5	<b>89.20</b>	86.84	54.54	37.19
0	0.1	0.8	<b>99.52</b>	99.50	89.36	10.19

**Table 28. Percentage of Rejection for K=3, Exponential Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.98</b>	3.74	2.26	39.57
0	0	0.5	87.90	<b>94.40</b>	65.02	31.12
0	0.5	0.5	86.54	<b>92.90</b>	64.18	30.91
0.05	0.25	0.5	84.02	<b>90.64</b>	58.00	36.01
0	0.3	0.5	89.48	<b>94.34</b>	65.88	30.17
0	0	1	99.96	<b>100.00</b>	99.00	1.00
0	1	1	99.94	<b>99.98</b>	97.80	2.18
0	0.5	1	99.98	<b>100.00</b>	98.98	1.02
0.5	0.5	1	87.90	<b>94.40</b>	65.02	31.12
0.5	1	1	86.54	<b>92.90</b>	64.18	30.91
0.1	0.5	1	99.94	<b>100.00</b>	97.66	2.34
0.1	0.3	0.7	95.76	<b>98.82</b>	80.66	18.38
0.2	0.5	0.8	95.98	<b>98.78</b>	80.48	18.53
0	0.25	0.5	89.20	<b>94.52</b>	66.30	29.86
0	0.1	0.8	99.52	<b>99.94</b>	94.82	5.12

**Table 29. Percentage of Rejection for K=3, Exponential Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.98</b>	2.60	0.68	73.85
0	0	0.5	87.90	<b>91.06</b>	41.18	54.78
0	0.5	0.5	86.54	<b>89.86</b>	41.70	53.59
0.05	0.25	0.5	84.02	<b>86.56</b>	34.42	60.24
0	0.3	0.5	89.48	<b>91.44</b>	42.80	53.19
0	0	1	99.96	<b>100.00</b>	95.60	4.40
0	1	1	99.94	<b>99.98</b>	94.16	5.82
0	0.5	1	99.98	<b>100.00</b>	95.94	4.06
0.5	0.5	1	87.90	<b>91.06</b>	41.18	54.78
0.5	1	1	86.54	<b>89.86</b>	41.70	53.59
0.1	0.5	1	99.94	<b>99.98</b>	91.98	8.00
0.1	0.3	0.7	95.76	<b>97.66</b>	58.94	39.65
0.2	0.5	0.8	95.98	<b>97.64</b>	59.50	39.06
0	0.25	0.5	89.20	<b>91.66</b>	42.88	53.22
0	0.1	0.8	99.52	<b>99.86</b>	84.46	15.42



**Table 30. Percentage of Rejection for K=3, t-Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.40	4.32	<b>4.48</b>	-3.70
0	0	0.5	23.06	<b>25.66</b>	24.72	3.66
0	0.5	0.5	22.68	<b>25.8</b>	25.14	2.56
0.05	0.25	0.5	20.40	<b>22.46</b>	21.92	2.40
0	0.3	0.5	22.90	<b>26.02</b>	25.22	3.07
0	0	1	56.50	<b>64.32</b>	62.22	3.26
0	1	1	56.04	<b>63.30</b>	61.28	3.19
0	0.5	1	57.28	<b>65.34</b>	63.32	3.09
0.5	0.5	1	23.06	<b>25.66</b>	24.72	3.66
0.5	1	1	22.68	<b>25.80</b>	25.14	2.56
0.1	0.5	1	50.14	<b>58.06</b>	56.00	3.55
0.1	0.3	0.7	29.36	<b>33.58</b>	32.20	4.11
0.2	0.5	0.8	29.46	<b>33.32</b>	32.36	2.88
0	0.25	0.5	23.28	<b>25.82</b>	25.00	3.18
0	0.1	0.8	43.46	<b>49.94</b>	48.12	3.64

**Table 31. Percentage of Rejection for K=3, t-Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.40</b>	3.62	3.58	1.10
0	0	0.5	<b>23.06</b>	22.82	21.72	4.82
0	0.5	0.5	22.68	<b>23.34</b>	22.28	4.54
0.05	0.25	0.5	<b>20.40</b>	19.88	18.84	5.23
0	0.3	0.5	22.90	<b>23.06</b>	22.12	4.08
0	0	1	56.50	<b>60.94</b>	58.28	4.36
0	1	1	56.04	<b>60.60</b>	58.14	4.06
0	0.5	1	57.28	<b>61.80</b>	59.12	4.34
0.5	0.5	1	<b>23.06</b>	22.82	21.72	4.82
0.5	1	1	22.68	<b>23.34</b>	22.28	4.54
0.1	0.5	1	50.14	<b>54.46</b>	52.08	4.37
0.1	0.3	0.7	29.36	<b>30.12</b>	28.22	6.31
0.2	0.5	0.8	29.46	<b>30.50</b>	28.52	6.49
0	0.25	0.5	<b>23.28</b>	22.88	21.90	4.28
0	0.1	0.8	43.46	<b>46.00</b>	43.78	4.83

**Table 32. Percentage of Rejection for K=3, t-Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.40</b>	4.06	3.92	3.45
0	0	0.5	23.06	<b>31.32</b>	23.30	25.61
0	0.5	0.5	22.68	<b>31.50</b>	23.54	25.27
0.05	0.25	0.5	20.40	<b>27.60</b>	20.74	24.86
0	0.3	0.5	22.90	<b>31.40</b>	23.72	24.46
0	0	1	56.50	<b>74.54</b>	58.60	21.38
0	1	1	56.04	<b>74.14</b>	58.62	20.93
0	0.5	1	57.28	<b>75.52</b>	60.02	20.52
0.5	0.5	1	23.06	<b>31.32</b>	23.30	25.61
0.5	1	1	22.68	<b>31.50</b>	23.54	25.27
0.1	0.5	1	50.14	<b>68.38</b>	52.98	22.52
0.1	0.3	0.7	29.36	<b>40.92</b>	29.80	27.17
0.2	0.5	0.8	29.46	<b>41.04</b>	30.06	26.75
0	0.25	0.5	23.28	<b>31.68</b>	23.70	25.19
0	0.1	0.8	43.46	<b>59.66</b>	44.78	24.94

**Table 33. Percentage of Rejection for K=3, t-Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.40</b>	3.22	2.42	24.84
0	0	0.5	23.06	<b>27.58</b>	17.02	38.29
0	0.5	0.5	22.68	<b>28.04</b>	17.12	38.94
0.05	0.25	0.5	20.40	<b>24.12</b>	15.02	37.73
0	0.3	0.5	22.90	<b>27.82</b>	17.26	37.96
0	0	1	56.50	<b>70.28</b>	49.90	29.00
0	1	1	56.04	<b>70.16</b>	49.80	29.02
0	0.5	1	57.28	<b>71.10</b>	51.34	27.79
0.5	0.5	1	23.06	<b>27.58</b>	17.02	38.29
0.5	1	1	22.68	<b>28.04</b>	17.12	38.94
0.1	0.5	1	50.14	<b>63.88</b>	44.26	30.71
0.1	0.3	0.7	29.36	<b>36.54</b>	23.08	36.84
0.2	0.5	0.8	29.46	<b>36.72</b>	23.10	37.09
0	0.25	0.5	23.28	<b>28.06</b>	17.40	37.99
0	0.1	0.8	43.46	<b>54.60</b>	36.00	34.07

**Table 34. Percentage of Rejection for K=3, t-Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.42	4.34	<b>4.44</b>	-2.30
0	0	0.5	<b>36.76</b>	36.34	<b>37.10</b>	-2.09
0	0.5	0.5	36.60	36.16	<b>37.28</b>	-3.10
0.05	0.25	0.5	32.06	31.72	<b>32.68</b>	-3.03
0	0.3	0.5	37.50	36.72	<b>38.00</b>	-3.49
0	0	1	81.80	82.16	<b>83.50</b>	-1.63
0	1	1	82.16	82.02	<b>83.68</b>	-2.02
0	0.5	1	83.30	82.86	<b>84.50</b>	-1.98
0.5	0.5	1	36.76	36.34	<b>37.10</b>	-2.09
0.5	1	1	36.60	36.16	<b>37.28</b>	-3.10
0.1	0.5	1	76.64	75.88	<b>77.68</b>	-2.37
0.1	0.3	0.7	47.56	46.54	<b>48.08</b>	-3.31
0.2	0.5	0.8	47.68	46.94	<b>48.24</b>	-2.77
0	0.25	0.5	37.26	36.44	<b>37.68</b>	-3.40
0	0.1	0.8	67.48	67.20	<b>68.90</b>	-2.53

**Table 35. Percentage of Rejection for K=3, t-Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.42</b>	3.74	3.58	4.28
0	0	0.5	<b>36.76</b>	33.76	35.08	-3.91
0	0.5	0.5	<b>36.6</b>	34.62	35.60	-2.83
0.05	0.25	0.5	32.06	29.36	30.42	-3.61
0	0.3	0.5	37.50	34.52	35.66	-3.30
0	0	1	81.80	80.60	<b>82.10</b>	-1.86
0	1	1	82.16	80.38	<b>82.24</b>	-2.31
0	0.5	1	83.30	81.60	<b>83.30</b>	-2.08
0.5	0.5	1	<b>36.76</b>	33.76	35.08	-3.91
0.5	1	1	<b>36.60</b>	34.62	35.60	-2.83
0.1	0.5	1	<b>76.64</b>	74.26	76.34	-2.80
0.1	0.3	0.7	<b>47.56</b>	43.96	45.32	-3.09
0.2	0.5	0.8	<b>47.68</b>	43.76	45.36	-3.66
0	0.25	0.5	37.26	34.04	35.52	-4.35
0	0.1	0.8	<b>67.48</b>	64.82	66.80	-3.05

**Table 36. Percentage of Rejection for K=3, t-Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.42	<b>4.78</b>	4.4	7.95
0	0	0.5	36.76	<b>41.80</b>	31.62	24.35
0	0.5	0.5	36.60	<b>41.94</b>	31.90	23.94
0.05	0.25	0.5	32.06	<b>36.46</b>	28.08	22.98
0	0.3	0.5	37.50	<b>42.94</b>	32.06	25.34
0	0	1	81.80	<b>88.52</b>	75.40	14.82
0	1	1	82.16	<b>88.76</b>	75.16	15.32
0	0.5	1	83.30	<b>89.38</b>	76.36	14.57
0.5	0.5	1	36.76	<b>41.80</b>	31.62	24.35
0.5	1	1	36.60	<b>41.94</b>	31.90	23.94
0.1	0.5	1	76.64	<b>83.64</b>	69.00	17.50
0.1	0.3	0.7	47.56	<b>55.12</b>	41.26	25.15
0.2	0.5	0.8	47.68	<b>55.28</b>	40.90	26.01
0	0.25	0.5	37.26	<b>42.78</b>	32.22	24.68
0	0.1	0.8	67.48	<b>74.82</b>	59.94	19.89

**Table 37. Percentage of Rejection for K=3, t-Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>4.42</b>	4.12	2.92	29.13
0	0	0.5	36.76	<b>38.44</b>	25.52	33.61
0	0.5	0.5	36.60	<b>38.28</b>	26.02	32.03
0.05	0.25	0.5	32.06	<b>33.48</b>	22.32	33.33
0	0.3	0.5	37.50	<b>38.38</b>	26.44	31.11
0	0	1	81.80	<b>86.44</b>	70.40	18.56
0	1	1	82.16	<b>86.92</b>	70.06	19.40
0	0.5	1	83.30	<b>87.62</b>	71.34	18.58
0.5	0.5	1	36.76	<b>38.44</b>	25.52	33.61
0.5	1	1	36.60	<b>38.28</b>	26.02	32.03
0.1	0.5	1	76.64	<b>80.94</b>	63.12	22.02
0.1	0.3	0.7	47.56	<b>51.02</b>	34.82	31.75
0.2	0.5	0.8	47.68	<b>50.64</b>	34.94	31.00
0	0.25	0.5	37.26	<b>38.60</b>	26.46	31.45
0	0.1	0.8	67.48	<b>72.46</b>	53.24	26.52

**Table 38. Percentage of Rejection for K=3, t-Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.36</b>	4.26	4.68	-9.86
0	0	0.5	<b>45.40</b>	42.90	43.28	-0.89
0	0.5	0.5	<b>46.30</b>	42.94	43.28	-0.79
0.05	0.25	0.5	<b>40.34</b>	38.04	38.38	-0.89
0	0.3	0.5	<b>46.36</b>	43.58	43.84	-0.60
0	0	1	<b>90.52</b>	89.08	89.00	0.09
0	1	1	<b>90.66</b>	88.88	88.84	0.05
0	0.5	1	<b>91.86</b>	89.78	89.64	0.16
0.5	0.5	1	<b>45.40</b>	42.90	43.28	-0.89
0.5	1	1	<b>46.30</b>	42.94	43.28	-0.79
0.1	0.5	1	<b>86.44</b>	83.84	83.78	0.07
0.1	0.3	0.7	<b>58.10</b>	54.74	55.12	-0.69
0.2	0.5	0.8	<b>57.82</b>	54.98	55.30	-0.58
0	0.25	0.5	<b>46.24</b>	43.52	44.02	-1.15
0	0.1	0.8	<b>78.58</b>	75.76	75.78	-0.03

**Table 39. Percentage of Rejection for K=3, t-Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.36</b>	3.88	3.94	-1.55
0	0	0.5	<b>45.40</b>	40.42	40.66	-0.59
0	0.5	0.5	<b>46.30</b>	40.58	41.02	-1.08
0.05	0.25	0.5	<b>40.34</b>	35.02	35.36	-0.97
0	0.3	0.5	<b>46.36</b>	40.70	41.00	-0.74
0	0	1	<b>90.52</b>	87.90	87.78	0.14
0	1	1	<b>90.66</b>	87.74	87.62	0.14
0	0.5	1	<b>91.86</b>	88.90	88.70	0.22
0.5	0.5	1	<b>45.40</b>	40.42	40.66	-0.59
0.5	1	1	<b>46.30</b>	40.58	41.02	-1.08
0.1	0.5	1	<b>86.44</b>	82.70	82.62	0.10
0.1	0.3	0.7	<b>58.10</b>	52.16	52.42	-0.50
0.2	0.5	0.8	<b>57.82</b>	52.38	52.64	-0.50
0	0.25	0.5	<b>46.24</b>	40.88	41.14	-0.64
0	0.1	0.8	<b>78.58</b>	74.06	74.20	-0.19

**Table 40. Percentage of Rejection for K=3, t-Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.36</b>	4.74	4.32	8.86
0	0	0.5	45.40	<b>49.70</b>	32.8	34.00
0	0.5	0.5	46.30	<b>50.24</b>	33.46	33.40
0.05	0.25	0.5	40.34	<b>43.16</b>	28.72	33.46
0	0.3	0.5	46.36	<b>50.16</b>	33.78	32.66
0	0	1	90.52	<b>94.48</b>	79.76	15.58
0	1	1	90.66	<b>95.16</b>	79.16	16.81
0	0.5	1	91.86	<b>95.22</b>	81.18	14.74
0.5	0.5	1	45.40	<b>49.70</b>	32.80	34.00
0.5	1	1	46.30	<b>50.24</b>	33.46	33.40
0.1	0.5	1	86.44	<b>91.02</b>	73.14	19.64
0.1	0.3	0.7	58.10	<b>63.14</b>	44.10	30.16
0.2	0.5	0.8	57.82	<b>63.16</b>	44.46	29.61
0	0.25	0.5	46.24	<b>50.16</b>	33.78	32.66
0	0.1	0.8	78.58	<b>84.12</b>	63.42	24.61

**Table 41. Percentage of Rejection for K=3, t-Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.36</b>	3.84	2.88	25.00
0	0	0.5	45.40	<b>45.96</b>	26.7	41.91
0	0.5	0.5	46.30	<b>46.12</b>	26.88	41.72
0.05	0.25	0.5	<b>40.34</b>	39.38	22.92	41.80
0	0.3	0.5	<b>46.36</b>	45.76	27.20	40.56
0	0	1	90.52	<b>93.10</b>	74.06	20.45
0	1	1	90.66	<b>93.72</b>	74.04	21.00
0	0.5	1	91.86	<b>93.66</b>	75.16	19.75
0.5	0.5	1	45.40	<b>45.96</b>	26.70	41.91
0.5	1	1	<b>46.30</b>	46.12	26.88	41.72
0.1	0.5	1	86.44	<b>89.02</b>	66.50	25.30
0.1	0.3	0.7	58.10	<b>59.32</b>	35.84	39.58
0.2	0.5	0.8	57.82	<b>59.36</b>	35.96	39.42
0	0.25	0.5	<b>46.24</b>	45.82	27.14	40.77
0	0.1	0.8	78.58	<b>81.34</b>	56.52	30.51

**Table 42. Percentage of Rejection for K=3, t-Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.36</b>	4.76	4.54	4.62
0	0	0.5	45.40	<b>58.72</b>	35.48	39.58
0	0.5	0.5	46.30	<b>59.20</b>	35.18	40.57
0.05	0.25	0.5	40.34	<b>52.68</b>	30.48	42.14
0	0.3	0.5	46.36	<b>59.44</b>	35.66	40.01
0	0	1	90.52	<b>97.98</b>	82.04	16.27
0	1	1	90.66	<b>97.74</b>	82.32	15.78
0	0.5	1	91.86	<b>98.08</b>	83.04	15.33
0.5	0.5	1	45.40	<b>58.72</b>	35.48	39.58
0.5	1	1	46.30	<b>59.20</b>	35.18	40.57
0.1	0.5	1	86.44	<b>95.74</b>	75.90	20.72
0.1	0.3	0.7	58.10	<b>73.08</b>	46.56	36.29
0.2	0.5	0.8	57.82	<b>72.98</b>	46.42	36.39
0	0.25	0.5	46.24	<b>59.66</b>	35.72	40.13
0	0.1	0.8	78.58	<b>91.18</b>	66.72	26.83

**Table 43. Percentage of Rejection for K=3, t-Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	<b>5.36</b>	3.78	2.72	28.04
0	0	0.5	45.40	<b>54.74</b>	25.30	53.78
0	0.5	0.5	46.30	<b>54.40</b>	25.30	53.49
0.05	0.25	0.5	40.34	<b>47.14</b>	21.66	54.05
0	0.3	0.5	46.36	<b>54.88</b>	26.04	52.55
0	0	1	90.52	<b>96.74</b>	73.32	24.21
0	1	1	90.66	<b>96.80</b>	73.62	23.95
0	0.5	1	91.86	<b>97.04</b>	74.46	23.27
0.5	0.5	1	45.40	<b>54.74</b>	25.30	53.78
0.5	1	1	46.30	<b>54.40</b>	25.30	53.49
0.1	0.5	1	86.44	<b>94.04</b>	65.94	29.88
0.1	0.3	0.7	58.10	<b>68.02</b>	35.42	47.93
0.2	0.5	0.8	57.82	<b>68.22</b>	35.52	47.93
0	0.25	0.5	46.24	<b>54.98</b>	25.88	52.93
0	0.1	0.8	78.58	<b>88.20</b>	55.72	36.83

**Table 44. Percentage of Rejection for K=4, Normal Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.54</b>	4.10	4.44	-8.29
0	0.1	0.2	0.3	<b>20.82</b>	19.92	<b>20.86</b>	-4.72
0	0	0.25	0.25	<b>21.76</b>	20.18	21.06	-4.36
0	0.125	0.25	0.25	<b>18.72</b>	17.26	18.06	-4.63
0	0	0	0.5	33.32	33.40	<b>34.98</b>	-4.73
0.05	0.1	0.3	0.5	34.72	35.54	<b>37.44</b>	-5.35
0	0	0.5	0.5	48.28	50.00	<b>51.94</b>	-3.88
0	0.25	0.5	0.5	40.94	42.20	<b>43.92</b>	-4.08
0	0.5	0.5	1	76.50	80.20	<b>81.84</b>	-2.04
0	0.25	0.25	0.5	33.84	34.08	<b>35.58</b>	-4.40
0	0.25	0.25	0.25	<b>16.26</b>	14.44	15.34	-6.23
0.1	0.2	0.6	1	79.44	82.58	<b>83.92</b>	-1.62
0.25	0.25	0.5	0.5	<b>21.76</b>	20.18	21.06	-4.36
0	0.1	0.3	0.7	57.20	59.76	<b>61.60</b>	-3.08
0	0.05	0.15	0.35	24.34	24.34	<b>25.52</b>	-4.85
0	0.15	0.2	0.5	34.92	35.48	<b>37.28</b>	-5.07
0	0	0.1	0.6	45.26	46.74	<b>48.62</b>	-4.02
0	0	0.05	0.3	19.52	18.78	<b>19.76</b>	-5.22

**Table 45. Percentage of Rejection for K=4, Normal Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.54</b>	3.46	3.72	-7.51
0	0.1	0.2	0.3	<b>20.82</b>	16.64	18.06	-8.53
0	0	0.25	0.25	<b>21.76</b>	17.24	18.48	-7.19
0	0.125	0.25	0.25	<b>18.72</b>	14.30	15.46	-8.11
0	0	0	0.5	33.32	30.02	31.76	-5.80
0.05	0.1	0.3	0.5	34.72	31.80	33.38	-4.97
0	0	0.5	0.5	48.28	46.24	<b>48.42</b>	-4.71
0	0.25	0.5	0.5	<b>40.94</b>	37.98	40.14	-5.69
0	0.5	0.5	1	76.50	76.84	<b>78.72</b>	-2.45
0	0.25	0.25	0.5	<b>33.84</b>	30.82	32.48	-5.39
0	0.25	0.25	0.25	<b>16.26</b>	11.70	12.76	-9.06
0.1	0.2	0.6	1	79.44	80.38	<b>81.8</b>	-1.77
0.25	0.25	0.5	0.5	<b>21.76</b>	17.24	18.48	-7.19
0	0.1	0.3	0.7	57.20	56.24	<b>58.50</b>	-4.02
0	0.05	0.15	0.35	<b>24.34</b>	20.66	22.06	-6.78
0	0.15	0.2	0.5	<b>34.92</b>	31.76	33.58	-5.73
0	0	0.1	0.6	<b>45.26</b>	43.04	45.12	-4.83
0	0	0.05	0.3	<b>19.52</b>	15.92	16.86	-5.90



**Table 46. Percentage of Rejection for K=4, Normal Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.28</b>	4.09	3.74	8.56
0	0.1	0.2	0.3	20.1	<b>23.00</b>	17.48	24.00
0	0	0.25	0.25	20.00	<b>22.62</b>	17.46	22.81
0	0.125	0.25	0.25	17.28	<b>18.80</b>	14.78	21.38
0	0	0	0.5	32.62	<b>39.46</b>	31.06	21.29
0.05	0.1	0.3	0.5	33.68	<b>41.62</b>	32.54	21.82
0	0	0.5	0.5	47.22	<b>58.86</b>	46.76	20.56
0	0.25	0.5	0.5	39.70	<b>49.72</b>	38.92	21.72
0	0.5	0.5	1	75.66	<b>88.44</b>	77.40	12.48
0	0.25	0.25	0.5	32.64	<b>39.86</b>	31.54	20.87
0	0.25	0.25	0.25	14.72	<b>15.34</b>	12.10	21.12
0.1	0.2	0.6	1	78.02	<b>90.12</b>	79.16	12.16
0.25	0.25	0.5	0.5	20.00	<b>22.62</b>	17.46	22.81
0	0.1	0.3	0.7	55.86	<b>69.76</b>	56.40	19.15
0	0.05	0.15	0.35	23.76	<b>27.64</b>	21.44	22.43
0	0.15	0.2	0.5	34.04	<b>42.04</b>	33.02	21.46
0	0	0.1	0.6	44.44	<b>55.04</b>	43.14	21.62
0	0	0.05	0.3	19.38	<b>21.56</b>	16.16	25.05

**Table 47. Percentage of Rejection for K=4, Normal Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.28</b>	3.04	1.92	36.84
0	0.1	0.2	0.3	<b>20.10</b>	18.90	11.50	39.15
0	0	0.25	0.25	<b>20.00</b>	18.76	11.34	39.55
0	0.125	0.25	0.25	<b>17.28</b>	15.26	9.32	38.93
0	0	0	0.5	32.62	<b>34.14</b>	22.10	35.27
0.05	0.1	0.3	0.5	33.68	<b>36.22</b>	23.56	34.95
0	0	0.5	0.5	47.22	<b>53.40</b>	36.90	30.90
0	0.25	0.5	0.5	39.70	<b>43.84</b>	29.06	33.71
0	0.5	0.5	1	75.66	<b>85.18</b>	69.96	17.87
0	0.25	0.25	0.5	32.64	<b>34.22</b>	22.28	34.89
0	0.25	0.25	0.25	<b>14.72</b>	12.34	7.12	42.30
0.1	0.2	0.6	1	78.02	<b>87.32</b>	73.14	16.24
0.25	0.25	0.5	0.5	<b>20.00</b>	18.76	11.34	39.55
0	0.1	0.3	0.7	55.86	<b>65.02</b>	46.80	28.02
0	0.05	0.15	0.35	<b>23.76</b>	23.08	14.20	38.47
0	0.15	0.2	0.5	34.04	<b>36.16</b>	23.60	34.73
0	0	0.1	0.6	44.44	<b>49.86</b>	34.38	31.05
0	0	0.05	0.3	<b>19.38</b>	17.70	10.60	40.11

**Table 48. Percentage of Rejection for K=4, Normal Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.92</b>	4.30	4.44	-3.26
0	0.1	0.2	0.3	<b>30.6</b>	27.28	29.84	-9.38
0	0	0.25	0.25	<b>30.44</b>	27.32	29.50	-7.98
0	0.125	0.25	0.25	<b>26.00</b>	23.04	25.40	-10.24
0	0	0	0.5	51.34	47.42	<b>51.40</b>	-8.39
0.05	0.1	0.3	0.5	53.70	49.50	<b>53.86</b>	-8.81
0	0	0.5	0.5	71.94	68.48	<b>73.26</b>	-6.98
0	0.25	0.5	0.5	62.42	57.98	<b>62.96</b>	-8.59
0	0.5	0.5	1	95.56	94.36	<b>96.08</b>	-1.82
0	0.25	0.25	0.5	<b>51.86</b>	47.00	51.72	-10.04
0	0.25	0.25	0.25	<b>21.90</b>	19.1	20.64	-8.06
0.1	0.2	0.6	1	96.58	95.38	<b>97.14</b>	-1.85
0.25	0.25	0.5	0.5	<b>30.44</b>	27.32	29.50	-7.98
0	0.1	0.3	0.7	81.38	78.54	<b>83.70</b>	-6.57
0	0.05	0.15	0.35	<b>36.48</b>	32.90	35.58	-8.15
0	0.15	0.2	0.5	53.70	49.10	<b>53.98</b>	-9.94
0	0	0.1	0.6	67.62	63.20	<b>68.26</b>	-8.01
0	0	0.05	0.3	<b>28.60</b>	25.30	27.64	-9.25

**Table 49. Percentage of Rejection for K=4, Normal Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.92</b>	3.18	3.6	-13.21
0	0.1	0.2	0.3	<b>30.60</b>	24.46	28.16	-15.13
0	0	0.25	0.25	<b>30.44</b>	24.34	28.14	-15.61
0	0.125	0.25	0.25	<b>26.00</b>	20.80	23.36	-12.31
0	0	0	0.5	51.34	44.34	49.52	-11.68
0.05	0.1	0.3	0.5	53.70	46.38	51.82	-11.73
0	0	0.5	0.5	71.94	66.02	71.54	-8.36
0	0.25	0.5	0.5	62.42	54.52	61.12	-12.11
0	0.5	0.5	1	95.56	93.72	<b>95.74</b>	-2.16
0	0.25	0.25	0.5	<b>51.86</b>	44.46	49.50	-11.34
0	0.25	0.25	0.25	<b>21.90</b>	16.70	19.50	-16.77
0.1	0.2	0.6	1	96.58	94.98	<b>96.94</b>	-2.06
0.25	0.25	0.5	0.5	<b>30.44</b>	24.34	28.14	-15.61
0	0.1	0.3	0.7	81.38	77.08	<b>82.10</b>	-6.51
0	0.05	0.15	0.35	<b>36.48</b>	29.94	33.46	-11.76
0	0.15	0.2	0.5	53.70	46.74	52.28	-11.85
0	0	0.1	0.6	67.62	61.20	66.82	-9.18
0	0	0.05	0.3	<b>28.60</b>	22.44	26.12	-16.40

**Table 50. Percentage of Rejection for K=4, Normal Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.08</b>	3.94	3.68	6.60
0	0.1	0.2	0.3	<b>28.98</b>	<b>30.34</b>	25.08	17.34
0	0	0.25	0.25	<b>28.92</b>	<b>30.5</b>	24.88	18.43
0	0.125	0.25	0.25	<b>24.24</b>	<b>25.2</b>	20.72	17.78
0	0	0	0.5	<b>50.34</b>	<b>53.38</b>	43.18	19.11
0.05	0.1	0.3	0.5	<b>52.94</b>	<b>55.96</b>	46.08	17.66
0	0	0.5	0.5	<b>71.54</b>	<b>75.28</b>	65.46	13.04
0	0.25	0.5	0.5	<b>61.68</b>	<b>65.54</b>	54.74	16.48
0	0.5	0.5	1	<b>94.68</b>	<b>97.12</b>	92.62	4.63
0	0.25	0.25	0.5	<b>50.60</b>	<b>53.54</b>	44.20	17.44
0	0.25	0.25	0.25	<b>20.34</b>	<b>20.40</b>	16.88	17.25
0.1	0.2	0.6	1	<b>96.04</b>	<b>97.80</b>	94.40	3.48
0.25	0.25	0.5	0.5	<b>28.92</b>	<b>30.50</b>	24.88	18.43
0	0.1	0.3	0.7	<b>81.16</b>	<b>85.56</b>	75.96	11.22
0	0.05	0.15	0.35	<b>35.04</b>	<b>37.22</b>	30.22	18.81
0	0.15	0.2	0.5	<b>52.86</b>	<b>56.00</b>	46.14	17.61
0	0	0.1	0.6	<b>66.62</b>	<b>70.92</b>	60.98	14.02
0	0	0.05	0.3	<b>27.12</b>	<b>28.46</b>	23.14	18.69

**Table 51. Percentage of Rejection for K=4, Normal Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.08</b>	2.96	2.42	18.24
0	0.1	0.2	0.3	<b>28.98</b>	26.00	18.90	27.31
0	0	0.25	0.25	<b>28.92</b>	26.78	18.90	29.42
0	0.125	0.25	0.25	<b>24.24</b>	21.50	15.16	29.49
0	0	0	0.5	<b>50.34</b>	48.28	37.16	23.03
0.05	0.1	0.3	0.5	<b>52.94</b>	51.24	39.20	23.50
0	0	0.5	0.5	<b>71.54</b>	<b>72.32</b>	58.90	18.56
0	0.25	0.5	0.5	<b>61.68</b>	60.88	47.68	21.68
0	0.5	0.5	1	<b>94.68</b>	<b>96.28</b>	90.78	5.71
0	0.25	0.25	0.5	<b>50.60</b>	48.62	37.24	23.41
0	0.25	0.25	0.25	<b>20.34</b>	16.98	11.82	30.39
0.1	0.2	0.6	1	<b>96.04</b>	<b>97.20</b>	92.66	4.67
0.25	0.25	0.5	0.5	<b>28.92</b>	26.78	18.90	29.42
0	0.1	0.3	0.7	<b>81.16</b>	<b>83.26</b>	70.54	15.28
0	0.05	0.15	0.35	<b>35.04</b>	32.94	23.70	28.05
0	0.15	0.2	0.5	<b>52.86</b>	51.34	39.22	23.61
0	0	0.1	0.6	<b>66.62</b>	<b>67.42</b>	54.62	18.99
0	0	0.05	0.3	<b>27.12</b>	24.18	17.62	27.13

**Table 52. Percentage of Rejection for K=4, Normal Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.48	4.20	4.56	-8.57
0	0.1	0.2	0.3	32.88	30.00	32.64	-8.80
0	0	0.25	0.25	32.96	30.24	32.84	-8.60
0	0.125	0.25	0.25	28.04	25.12	27.26	-8.52
0	0	0	0.5	56.98	65.34	57.92	11.36
0.05	0.1	0.3	0.5	59.98	57.40	60.94	-6.17
0	0	0.5	0.5	78.52	77.66	80.82	-4.07
0	0.25	0.5	0.5	69.30	67.46	71.14	-5.46
0	0.5	0.5	1	97.82	97.44	98.36	-0.94
0	0.25	0.25	0.5	57.42	55.06	58.70	-6.61
0	0.25	0.25	0.25	22.82	20.26	22.12	-9.18
0.1	0.2	0.6	1	98.36	98.24	98.92	-0.69
0.25	0.25	0.5	0.5	32.96	30.24	32.84	-8.60
0	0.1	0.3	0.7	88.02	86.94	89.64	-3.11
0	0.05	0.15	0.35	39.18	37.46	39.92	-6.57
0	0.15	0.2	0.5	59.68	57.14	60.76	-6.34
0	0	0.1	0.6	75.54	72.82	76.54	-5.11
0	0	0.05	0.3	30.52	28.84	30.58	-6.03

**Table 53. Percentage of Rejection for K=4, Normal Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.48	3.32	3.56	-7.23
0	0.1	0.2	0.3	32.88	27.66	30.32	-9.62
0	0	0.25	0.25	32.96	27.68	30.46	-10.04
0	0.125	0.25	0.25	28.04	22.20	25.16	-13.33
0	0	0	0.5	56.98	50.88	55.38	-8.84
0.05	0.1	0.3	0.5	59.98	54.36	58.50	-7.62
0	0	0.5	0.5	78.52	75.34	79.34	-5.31
0	0.25	0.5	0.5	69.30	64.68	68.68	-6.18
0	0.5	0.5	1	97.82	97.20	98.10	-0.93
0	0.25	0.25	0.5	57.42	51.72	55.90	-8.08
0	0.25	0.25	0.25	22.82	17.70	20.02	-13.11
0.1	0.2	0.6	1	98.36	98.08	98.88	-0.82
0.25	0.25	0.5	0.5	32.96	27.68	30.46	-10.04
0	0.1	0.3	0.7	88.02	86.04	88.44	-2.79
0	0.05	0.15	0.35	39.18	34.02	37.32	-9.70
0	0.15	0.2	0.5	59.68	54.28	58.18	-7.18
0	0	0.1	0.6	75.54	70.20	74.56	-6.21
0	0	0.05	0.3	30.52	25.64	28.04	-9.36

**Table 54. Percentage of Rejection for K=4, Normal Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.00</b>	4.30	3.76	12.56
0	0.1	0.2	0.3	32.54	<b>36.36</b>	26.04	28.38
0	0	0.25	0.25	32.60	<b>36.04</b>	26.64	26.08
0	0.125	0.25	0.25	26.54	<b>29.98</b>	22.10	26.28
0	0	0	0.5	56.42	<b>62.72</b>	46.94	25.16
0.05	0.1	0.3	0.5	59.30	<b>65.52</b>	49.66	24.21
0	0	0.5	0.5	78.50	<b>84.34</b>	69.14	18.02
0	0.25	0.5	0.5	68.64	<b>75.26</b>	58.98	21.63
0	0.5	0.5	1	97.50	<b>98.90</b>	94.98	3.96
0	0.25	0.25	0.5	56.82	<b>63.12</b>	47.38	24.94
0	0.25	0.25	0.25	21.96	<b>24.30</b>	17.96	26.09
0.1	0.2	0.6	1	98.10	<b>99.30</b>	96.02	3.30
0.25	0.25	0.5	0.5	32.60	<b>36.04</b>	26.64	26.08
0	0.1	0.3	0.7	87.40	<b>92.16</b>	80.56	12.59
0	0.05	0.15	0.35	39.26	<b>43.96</b>	31.88	27.48
0	0.15	0.2	0.5	59.40	<b>65.88</b>	49.50	24.86
0	0	0.1	0.6	74.06	<b>80.68</b>	65.06	19.36
0	0	0.05	0.3	29.74	<b>33.32</b>	24.12	27.61

**Table 55. Percentage of Rejection for K=4, Normal Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.00</b>	3.36	1.98	41.07
0	0.1	0.2	0.3	<b>32.54</b>	31.82	19.18	39.72
0	0	0.25	0.25	<b>32.60</b>	31.54	19.52	38.11
0	0.125	0.25	0.25	<b>26.54</b>	25.58	15.00	41.36
0	0	0	0.5	56.42	<b>58.42</b>	38.30	34.44
0.05	0.1	0.3	0.5	59.30	<b>61.58</b>	41.18	33.13
0	0	0.5	0.5	78.50	<b>81.54</b>	62.46	23.40
0	0.25	0.5	0.5	68.64	<b>71.12</b>	51.14	28.09
0	0.5	0.5	1	97.50	<b>98.70</b>	93.04	5.73
0	0.25	0.25	0.5	56.82	<b>59.16</b>	38.72	34.55
0	0.25	0.25	0.25	<b>21.96</b>	20.32	11.60	42.91
0.1	0.2	0.6	1	98.10	<b>99.14</b>	94.36	4.82
0.25	0.25	0.5	0.5	<b>32.60</b>	31.54	19.52	38.11
0	0.1	0.3	0.7	87.40	<b>90.50</b>	75.08	17.04
0	0.05	0.15	0.35	39.26	<b>39.50</b>	24.18	38.78
0	0.15	0.2	0.5	59.40	<b>61.22</b>	41.42	32.34
0	0	0.1	0.6	74.06	<b>78.14</b>	58.18	25.54
0	0	0.05	0.3	<b>29.74</b>	28.84	17.22	40.29

**Table 56. Percentage of Rejection for K=4, Normal Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.78	4.32	3.42	20.83
0	0.1	0.2	0.3	32.08	42.40	25.78	39.20
0	0	0.25	0.25	32.58	42.56	25.62	39.80
0	0.125	0.25	0.25	27.66	35.36	21.24	39.93
0	0	0	0.5	55.72	72.08	44.84	37.79
0.05	0.1	0.3	0.5	58.76	75.02	48.40	35.48
0	0	0.5	0.5	78.24	91.06	67.66	25.70
0	0.25	0.5	0.5	68.02	83.74	57.22	31.67
0	0.5	0.5	1	97.74	99.92	95.24	4.68
0	0.25	0.25	0.5	55.78	72.10	45.68	36.64
0	0.25	0.25	0.25	22.46	28.78	16.90	41.28
0.1	0.2	0.6	1	98.48	99.94	96.42	3.52
0.25	0.25	0.5	0.5	32.58	42.56	25.62	39.80
0	0.1	0.3	0.7	87.00	96.40	78.82	18.24
0	0.05	0.15	0.35	39.16	51.32	31.16	39.28
0	0.15	0.2	0.5	58.48	75.00	47.98	36.03
0	0	0.1	0.6	74.14	88.74	63.32	28.65
0	0	0.05	0.3	29.96	39.48	23.68	40.02

**Table 57. Percentage of Rejection for K=4, Normal Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.78	2.86	1.24	56.64
0	0.1	0.2	0.3	32.08	37.24	14.94	59.88
0	0	0.25	0.25	32.58	36.84	14.80	59.83
0	0.125	0.25	0.25	27.66	30.10	11.72	61.06
0	0	0	0.5	55.72	66.34	32.00	51.76
0.05	0.1	0.3	0.5	58.76	70.06	34.66	50.53
0	0	0.5	0.5	78.24	88.40	54.30	38.57
0	0.25	0.5	0.5	68.02	79.40	43.20	45.59
0	0.5	0.5	1	97.74	99.76	89.86	9.92
0	0.25	0.25	0.5	55.78	66.80	33.08	50.48
0	0.25	0.25	0.25	22.46	23.40	9.44	59.66
0.1	0.2	0.6	1	98.48	99.84	92.14	7.71
0.25	0.25	0.5	0.5	32.58	36.84	14.80	59.83
0	0.1	0.3	0.7	87.00	95.22	67.48	29.13
0	0.05	0.15	0.35	39.16	45.04	19.38	56.97
0	0.15	0.2	0.5	58.48	69.90	34.70	50.36
0	0	0.1	0.6	74.14	85.12	49.92	41.35
0	0	0.05	0.3	29.96	33.92	13.74	59.49

**Table 58. Percentage of Rejection for K=4, Exponential Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.46</b>	4.00	4.34	-8.50
0	0.1	0.2	0.3	<b>35.66</b>	32.02	33.78	-5.50
0	0	0.25	0.25	<b>35.32</b>	31.64	33.40	-5.56
0	0.125	0.25	0.25	<b>30.46</b>	26.62	28.28	-6.24
0	0	0	0.5	<b>51.64</b>	51.12	53.10	-3.87
0.05	0.1	0.3	0.5	<b>59.22</b>	57.10	59.24	-3.75
0	0	0.5	0.5	<b>73.66</b>	<b>74.30</b>	76.58	-3.07
0	0.25	0.5	0.5	<b>65.30</b>	<b>64.82</b>	66.94	-3.27
0	0.5	0.5	1	<b>93.98</b>	<b>94.88</b>	95.78	-0.95
0	0.25	0.25	0.5	<b>56.34</b>	54.86	57.08	-4.05
0	0.25	0.25	0.25	<b>24.92</b>	21.56	22.74	-5.47
0.1	0.2	0.6	1	95.40	96.48	<b>96.96</b>	-0.50
0.25	0.25	0.5	0.5	<b>35.32</b>	31.64	33.40	-5.56
0	0.1	0.3	0.7	<b>82.82</b>	<b>84.04</b>	85.96	-2.28
0	0.05	0.15	0.35	<b>41.98</b>	38.36	40.46	-5.47
0	0.15	0.2	0.5	<b>58.48</b>	56.78	59.12	-4.12
0	0	0.1	0.6	<b>68.52</b>	<b>69.22</b>	71.58	-3.41
0	0	0.05	0.3	<b>32.38</b>	28.18	30.12	-6.88

**Table 59. Percentage of Rejection for K=4, Exponential Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.46</b>	3.04	3.38	-11.18
0	0.1	0.2	0.3	<b>35.66</b>	27.82	29.92	-7.55
0	0	0.25	0.25	<b>35.32</b>	27.36	29.36	-7.31
0	0.125	0.25	0.25	<b>30.46</b>	23.16	25.00	-7.94
0	0	0	0.5	<b>51.64</b>	45.56	48.30	-6.01
0.05	0.1	0.3	0.5	<b>59.22</b>	52.68	55.26	-4.90
0	0	0.5	0.5	<b>73.66</b>	69.84	72.70	-4.10
0	0.25	0.5	0.5	<b>65.30</b>	60.44	63.00	-4.24
0	0.5	0.5	1	<b>93.98</b>	93.76	<b>94.72</b>	-1.02
0	0.25	0.25	0.5	<b>56.34</b>	50.06	52.54	-4.95
0	0.25	0.25	0.25	<b>24.92</b>	18.42	20.04	-8.79
0.1	0.2	0.6	1	95.40	95.46	<b>96.08</b>	-0.65
0.25	0.25	0.5	0.5	<b>35.32</b>	27.36	29.36	-7.31
0	0.1	0.3	0.7	<b>82.82</b>	80.80	82.74	-2.40
0	0.05	0.15	0.35	<b>41.98</b>	33.72	36.00	-6.76
0	0.15	0.2	0.5	<b>58.48</b>	52.16	54.92	-5.29
0	0	0.1	0.6	<b>68.52</b>	64.78	67.32	-3.92
0	0	0.05	0.3	<b>32.38</b>	24.58	26.54	-7.97

**Table 60. Percentage of Rejection for K=4, Exponential Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.46</b>	3.82	3.04	20.42
0	0.1	0.2	0.3	<b>35.66</b>	<b>37.88</b>	26.38	30.36
0	0	0.25	0.25	<b>35.32</b>	<b>37.38</b>	25.90	30.71
0	0.125	0.25	0.25	30.46	<b>31.44</b>	21.46	31.74
0	0	0	0.5	51.64	<b>59.20</b>	43.88	25.88
0.05	0.1	0.3	0.5	59.22	<b>65.92</b>	49.98	24.18
0	0	0.5	0.5	73.66	<b>83.18</b>	67.14	19.28
0	0.25	0.5	0.5	65.30	<b>74.24</b>	57.48	22.58
0	0.5	0.5	1	93.98	<b>98.34</b>	92.66	5.78
0	0.25	0.25	0.5	56.34	<b>63.20</b>	47.20	25.32
0	0.25	0.25	0.25	24.92	<b>25.26</b>	17.38	31.20
0.1	0.2	0.6	1	95.40	<b>98.88</b>	94.72	4.21
0.25	0.25	0.5	0.5	35.32	<b>37.38</b>	25.90	30.71
0	0.1	0.3	0.7	82.82	<b>91.46</b>	78.32	14.37
0	0.05	0.15	0.35	41.98	<b>45.06</b>	31.62	29.83
0	0.15	0.2	0.5	58.48	<b>65.54</b>	49.68	24.20
0	0	0.1	0.6	68.52	<b>79.16</b>	61.92	21.78
0	0	0.05	0.3	32.38	<b>34.30</b>	23.00	32.94

**Table 61. Percentage of Rejection for K=4, Exponential Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.46</b>	2.74	1.60	41.61
0	0.1	0.2	0.3	<b>35.66</b>	32.08	16.48	48.63
0	0	0.25	0.25	<b>35.32</b>	31.48	16.50	47.59
0	0.125	0.25	0.25	<b>30.46</b>	26.20	13.20	49.62
0	0	0	0.5	51.64	<b>51.94</b>	30.80	40.70
0.05	0.1	0.3	0.5	59.22	<b>59.26</b>	36.06	39.15
0	0	0.5	0.5	73.66	<b>77.26</b>	53.60	30.62
0	0.25	0.5	0.5	65.30	<b>67.70</b>	44.30	34.56
0	0.5	0.5	1	93.98	<b>97.20</b>	86.38	11.13
0	0.25	0.25	0.5	56.34	<b>56.52</b>	33.72	40.34
0	0.25	0.25	0.25	<b>24.92</b>	20.54	9.90	51.80
0.1	0.2	0.6	1	95.40	<b>98.10</b>	89.26	9.01
0.25	0.25	0.5	0.5	<b>35.32</b>	31.48	16.50	47.59
0	0.1	0.3	0.7	82.82	<b>87.36</b>	67.18	23.10
0	0.05	0.15	0.35	41.98	38.72	20.68	46.59
0	0.15	0.2	0.5	58.48	<b>58.50</b>	35.58	39.18
0	0	0.1	0.6	68.52	<b>71.98</b>	48.12	33.15
0	0	0.05	0.3	<b>32.38</b>	28.68	14.36	49.93



**Table 62. Percentage of Rejection for K=4, Exponential Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.22</b>	3.84	3.94	-2.60
0	0.1	0.2	0.3	<b>54.86</b>	47.32	52.50	-10.95
0	0	0.25	0.25	<b>54.42</b>	46.38	51.62	-11.30
0	0.125	0.25	0.25	<b>46.56</b>	38.92	43.88	-12.74
0	0	0	0.5	<b>77.74</b>	71.76	<b>77.82</b>	-8.44
0.05	0.1	0.3	0.5	<b>84.20</b>	77.68	82.48	-6.18
0	0	0.5	0.5	<b>94.18</b>	90.6	94.06	-3.82
0	0.25	0.5	0.5	<b>88.56</b>	83.78	87.74	-4.73
0	0.5	0.5	1	<b>99.78</b>	99.58	99.78	-0.20
0	0.25	0.25	0.5	<b>80.58</b>	75.08	79.84	-6.34
0	0.25	0.25	0.25	<b>36.76</b>	30.46	34.10	-11.95
0.1	0.2	0.6	1	<b>99.96</b>	99.74	99.94	-0.20
0.25	0.25	0.5	0.5	<b>54.42</b>	46.38	51.62	-11.30
0	0.1	0.3	0.7	97.94	96.36	<b>98.08</b>	-1.78
0	0.05	0.15	0.35	<b>63.42</b>	55.68	61.76	-10.92
0	0.15	0.2	0.5	<b>83.26</b>	77.80	82.60	-6.17
0	0	0.1	0.6	<b>91.76</b>	87.76	91.44	-4.19
0	0	0.05	0.3	<b>49.64</b>	41.84	47.22	-12.86

**Table 63. Percentage of Rejection for K=4, Exponential Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.22</b>	2.94	3.76	-27.89
0	0.1	0.2	0.3	<b>54.86</b>	43.06	49.62	-15.23
0	0	0.25	0.25	<b>54.42</b>	42.38	49.20	-16.09
0	0.125	0.25	0.25	<b>46.56</b>	35.50	41.02	-15.55
0	0	0	0.5	<b>77.74</b>	68.22	75.66	-10.91
0.05	0.1	0.3	0.5	<b>84.20</b>	75.62	81.60	-7.91
0	0	0.5	0.5	<b>94.18</b>	89.72	93.50	-4.21
0	0.25	0.5	0.5	<b>88.56</b>	82.22	86.94	-5.74
0	0.5	0.5	1	<b>99.78</b>	99.56	<b>99.84</b>	-0.28
0	0.25	0.25	0.5	<b>80.58</b>	72.36	78.64	-8.68
0	0.25	0.25	0.25	<b>36.76</b>	27.46	32.54	-18.50
0.1	0.2	0.6	1	<b>99.96</b>	99.68	99.94	-0.26
0.25	0.25	0.5	0.5	<b>54.42</b>	42.38	49.20	-16.09
0	0.1	0.3	0.7	<b>97.94</b>	95.58	97.70	-2.22
0	0.05	0.15	0.35	<b>63.42</b>	52.00	59.42	-14.27
0	0.15	0.2	0.5	<b>83.26</b>	75.02	80.96	-7.92
0	0	0.1	0.6	<b>91.76</b>	86.06	90.68	-5.37
0	0	0.05	0.3	<b>49.64</b>	38.10	44.74	-17.43

**Table 64. Percentage of Rejection for K=4, Exponential Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.22</b>	4.28	3.46	19.16
0	0.1	0.2	0.3	<b>54.86</b>	52.66	40.84	22.45
0	0	0.25	0.25	<b>54.42</b>	52.40	40.54	22.63
0	0.125	0.25	0.25	<b>46.56</b>	43.82	33.78	22.91
0	0	0	0.5	<b>77.74</b>	<b>79.08</b>	65.92	16.64
0.05	0.1	0.3	0.5	<b>84.20</b>	84.14	72.26	14.12
0	0	0.5	0.5	94.18	<b>95.06</b>	87.60	7.85
0	0.25	0.5	0.5	88.56	<b>89.72</b>	79.42	11.48
0	0.5	0.5	1	99.78	<b>99.84</b>	99.10	0.74
0	0.25	0.25	0.5	80.58	<b>81.02</b>	68.72	15.18
0	0.25	0.25	0.25	<b>36.76</b>	34.32	26.74	22.09
0.1	0.2	0.6	1	<b>99.96</b>	99.94	99.50	0.44
0.25	0.25	0.5	0.5	<b>54.42</b>	52.40	40.54	22.63
0	0.1	0.3	0.7	97.94	<b>98.38</b>	94.82	3.62
0	0.05	0.15	0.35	<b>63.42</b>	62.46	49.72	20.40
0	0.15	0.2	0.5	83.26	<b>83.8</b>	72.16	13.89
0	0	0.1	0.6	91.76	<b>93.44</b>	84.26	9.82
0	0	0.05	0.3	<b>49.64</b>	48.58	37.16	23.51

**Table 65. Percentage of Rejection for K=4, Exponential Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.22</b>	3.08	1.88	38.96
0	0.1	0.2	0.3	<b>54.86</b>	47.18	32.04	32.09
0	0	0.25	0.25	<b>54.42</b>	47.02	31.68	32.62
0	0.125	0.25	0.25	<b>46.56</b>	38.66	25.68	33.57
0	0	0	0.5	<b>77.74</b>	74.00	56.42	23.76
0.05	0.1	0.3	0.5	<b>84.20</b>	80.36	64.18	20.13
0	0	0.5	0.5	<b>94.18</b>	<b>93.56</b>	83.00	11.29
0	0.25	0.5	0.5	<b>88.56</b>	86.64	73.30	15.40
0	0.5	0.5	1	99.78	<b>99.82</b>	<b>98.68</b>	1.14
0	0.25	0.25	0.5	<b>80.58</b>	77.18	60.32	21.85
0	0.25	0.25	0.25	<b>36.76</b>	29.50	19.34	34.44
0.1	0.2	0.6	1	<b>99.96</b>	99.90	99.22	0.68
0.25	0.25	0.5	0.5	<b>54.42</b>	47.02	31.68	32.62
0	0.1	0.3	0.7	97.94	97.92	92.00	6.05
0	0.05	0.15	0.35	<b>63.42</b>	56.66	40.02	29.37
0	0.15	0.2	0.5	83.26	79.80	63.30	20.68
0	0	0.1	0.6	91.76	91.16	77.90	14.55
0	0	0.05	0.3	<b>49.64</b>	42.12	28.08	33.33

**Table 66. Percentage of Rejection for K=4, Exponential Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.48</b>	4.06	4.26	-4.93
0	0.1	0.2	0.3	<b>61.56</b>	54.5	59.2	-8.62
0	0	0.25	0.25	<b>61.50</b>	53.7	57.86	-7.75
0	0.125	0.25	0.25	<b>52.38</b>	45.08	49.18	-9.09
0	0	0	0.5	<b>84.84</b>	80.70	84.38	-4.56
0.05	0.1	0.3	0.5	<b>90.14</b>	86.02	88.98	-3.44
0	0	0.5	0.5	<b>97.34</b>	95.74	97.24	-1.57
0	0.25	0.5	0.5	<b>93.48</b>	90.68	93.00	-2.56
0	0.5	0.5	1	<b>99.98</b>	99.98	99.98	0.00
0	0.25	0.25	0.5	<b>87.36</b>	82.90	86.4	-4.22
0	0.25	0.25	0.25	<b>40.64</b>	35.56	38.62	-8.61
0.1	0.2	0.6	1	99.98	100.00	<b>100.00</b>	0.00
0.25	0.25	0.5	0.5	<b>61.50</b>	53.70	57.86	-7.75
0	0.1	0.3	0.7	<b>99.42</b>	98.66	99.24	-0.59
0	0.05	0.15	0.35	<b>71.24</b>	65.16	69.60	-6.81
0	0.15	0.2	0.5	<b>89.42</b>	85.26	88.64	-3.96
0	0	0.1	0.6	<b>95.88</b>	93.84	95.62	-1.90
0	0	0.05	0.3	<b>56.28</b>	49.60	54.22	-9.31

**Table 67. Percentage of Rejection for K=4, Exponential Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.48</b>	3.12	3.72	-19.23
0	0.1	0.2	0.3	<b>61.56</b>	50.92	56.38	-10.72
0	0	0.25	0.25	<b>61.50</b>	50.04	55.10	-10.11
0	0.125	0.25	0.25	<b>52.38</b>	41.88	46.66	-11.41
0	0	0	0.5	<b>84.84</b>	78.14	82.4	-5.45
0.05	0.1	0.3	0.5	<b>90.14</b>	83.98	87.54	-4.24
0	0	0.5	0.5	<b>97.34</b>	94.88	96.72	-1.94
0	0.25	0.5	0.5	<b>93.48</b>	89.20	91.88	-3.00
0	0.5	0.5	1	<b>99.98</b>	99.96	99.98	-0.02
0	0.25	0.25	0.5	<b>87.36</b>	80.78	84.82	-5.00
0	0.25	0.25	0.25	<b>40.64</b>	31.58	35.42	-12.16
0.1	0.2	0.6	1	99.98	100.00	<b>100.00</b>	0.00
0.25	0.25	0.5	0.5	<b>61.50</b>	50.04	55.10	-10.11
0	0.1	0.3	0.7	<b>99.42</b>	98.44	99.14	-0.71
0	0.05	0.15	0.35	<b>71.24</b>	61.72	66.96	-8.49
0	0.15	0.2	0.5	<b>89.42</b>	83.16	87.12	-4.76
0	0	0.1	0.6	<b>95.88</b>	93.06	95.24	-2.34
0	0	0.05	0.3	<b>56.28</b>	45.64	51.20	-10.83

**Table 68. Percentage of Rejection for K=4, Exponential Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.48</b>	3.62	2.88	20.44
0	0.1	0.2	0.3	<b>61.56</b>	<b>61.98</b>	42.20	31.91
0	0	0.25	0.25	<b>61.50</b>	<b>61.50</b>	41.72	32.16
0	0.125	0.25	0.25	<b>52.38</b>	51.54	34.24	33.57
0	0	0	0.5	<b>84.84</b>	<b>87.02</b>	68.44	21.35
0.05	0.1	0.3	0.5	90.14	<b>91.00</b>	74.72	17.89
0	0	0.5	0.5	97.34	<b>98.04</b>	90.14	8.06
0	0.25	0.5	0.5	93.48	<b>95.16</b>	82.16	13.66
0	0.5	0.5	1	<b>99.98</b>	99.98	99.58	0.40
0	0.25	0.25	0.5	87.36	<b>88.84</b>	70.90	20.19
0	0.25	0.25	0.25	<b>40.64</b>	39.58	26.50	33.05
0.1	0.2	0.6	1	99.98	<b>100.00</b>	99.72	0.28
0.25	0.25	0.5	0.5	61.50	<b>61.50</b>	41.72	32.16
0	0.1	0.3	0.7	99.42	<b>99.62</b>	95.92	3.71
0	0.05	0.15	0.35	71.24	<b>72.36</b>	51.82	28.39
0	0.15	0.2	0.5	89.42	<b>90.68</b>	74.16	18.22
0	0	0.1	0.6	95.88	<b>97.10</b>	87.14	10.26
0	0	0.05	0.3	<b>56.28</b>	56.00	37.50	33.04

**Table 69. Percentage of Rejection for K=4, Exponential Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.48</b>	2.48	1.36	45.16
0	0.1	0.2	0.3	<b>61.56</b>	56.00	31.20	44.29
0	0	0.25	0.25	<b>61.50</b>	55.84	30.60	45.20
0	0.125	0.25	0.25	<b>52.38</b>	45.52	24.32	46.57
0	0	0	0.5	<b>84.84</b>	83.10	57.78	30.47
0.05	0.1	0.3	0.5	<b>90.14</b>	88.42	65.34	26.10
0	0	0.5	0.5	<b>97.34</b>	97.16	84.72	12.80
0	0.25	0.5	0.5	<b>93.48</b>	93.22	74.80	19.76
0	0.5	0.5	1	<b>99.98</b>	99.98	99.04	0.94
0	0.25	0.25	0.5	<b>87.36</b>	85.78	61.24	28.61
0	0.25	0.25	0.25	<b>40.64</b>	34.26	17.38	49.27
0.1	0.2	0.6	1	99.98	<b>100.00</b>	99.36	0.64
0.25	0.25	0.5	0.5	<b>61.50</b>	55.84	30.60	45.20
0	0.1	0.3	0.7	<b>99.42</b>	99.28	93.34	5.98
0	0.05	0.15	0.35	<b>71.24</b>	67.20	39.94	40.57
0	0.15	0.2	0.5	<b>89.42</b>	<b>87.88</b>	64.42	26.70
0	0	0.1	0.6	<b>95.88</b>	95.88	80.16	16.40
0	0	0.05	0.3	<b>56.28</b>	50.20	26.76	46.69

**Table 70. Percentage of Rejection for K=4, Exponential Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.48</b>	3.78	2.78	26.46
0	0.1	0.2	0.3	61.56	<b>70.58</b>	36.18	48.74
0	0	0.25	0.25	61.50	<b>70.14</b>	36.24	48.33
0	0.125	0.25	0.25	52.38	<b>59.36</b>	29.44	50.40
0	0	0	0.5	84.84	<b>93.60</b>	64.20	31.41
0.05	0.1	0.3	0.5	90.14	<b>95.70</b>	69.10	27.80
0	0	0.5	0.5	97.34	<b>99.36</b>	86.64	12.80
0	0.25	0.5	0.5	93.48	<b>97.84</b>	77.06	21.34
0	0.5	0.5	1	99.98	<b>100.00</b>	99.16	0.84
0	0.25	0.25	0.5	87.36	<b>94.10</b>	66.02	29.84
0	0.25	0.25	0.25	40.64	<b>46.76</b>	23.08	50.64
0.1	0.2	0.6	1	99.98	<b>100.00</b>	99.56	0.44
0.25	0.25	0.5	0.5	61.50	<b>70.14</b>	36.24	48.33
0	0.1	0.3	0.7	99.42	<b>99.88</b>	94.12	5.77
0	0.05	0.15	0.35	71.24	<b>81.06</b>	44.82	44.71
0	0.15	0.2	0.5	89.42	<b>95.54</b>	68.94	27.84
0	0	0.1	0.6	95.88	<b>99.04</b>	83.06	16.13
0	0	0.05	0.3	56.28	<b>64.82</b>	32.16	50.38

**Table 71. Percentage of Rejection for K=4, Exponential Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.48</b>	2.38	0.98	58.82
0	0.1	0.2	0.3	61.56	<b>62.76</b>	19.9	68.29
0	0	0.25	0.25	61.50	<b>62.28</b>	19.42	68.82
0	0.125	0.25	0.25	<b>52.38</b>	51.98	15.20	70.76
0	0	0	0.5	84.84	<b>89.26</b>	41.94	53.01
0.05	0.1	0.3	0.5	90.14	<b>93.26</b>	47.64	48.92
0	0	0.5	0.5	97.34	<b>98.76</b>	70.46	28.66
0	0.25	0.5	0.5	93.48	<b>96.52</b>	57.52	40.41
0	0.5	0.5	1	99.98	<b>100.00</b>	96.80	3.20
0	0.25	0.25	0.5	87.36	<b>90.92</b>	44.42	51.14
0	0.25	0.25	0.25	<b>40.64</b>	39.16	11.02	71.86
0.1	0.2	0.6	1	99.98	<b>100.00</b>	97.78	2.22
0.25	0.25	0.5	0.5	61.50	<b>62.28</b>	19.42	68.82
0	0.1	0.3	0.7	99.42	<b>99.78</b>	83.44	16.38
0	0.05	0.15	0.35	71.24	<b>73.98</b>	25.90	64.99
0	0.15	0.2	0.5	89.42	<b>93.00</b>	47.04	49.42
0	0	0.1	0.6	95.88	<b>98.02</b>	64.96	33.73
0	0	0.05	0.3	56.28	<b>56.92</b>	17.02	70.10

**Table 72. Percentage of Rejection for K=4, t-Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.32</b>	4.64	5.00	-7.76
0	0.1	0.2	0.3	<b>16.66</b>	15.54	16.46	-5.92
0	0	0.25	0.25	<b>16.98</b>	15.10	16.12	-6.75
0	0.125	0.25	0.25	<b>15.02</b>	13.48	14.24	-5.64
0	0	0	0.5	<b>25.80</b>	25.22	<b>26.50</b>	-5.08
0.05	0.1	0.3	0.5	27.14	26.40	<b>28.00</b>	-6.06
0	0	0.5	0.5	36.58	38.78	<b>40.46</b>	-4.33
0	0.25	0.5	0.5	31.48	31.86	<b>33.18</b>	-4.14
0	0.5	0.5	1	60.52	64.22	<b>65.90</b>	-2.62
0	0.25	0.25	0.5	26.24	25.68	<b>26.78</b>	-4.28
0	0.25	0.25	0.25	<b>12.8</b>	11.74	12.26	-4.43
0.1	0.2	0.6	1	62.68	66.80	<b>68.26</b>	-2.19
0.25	0.25	0.5	0.5	<b>16.98</b>	15.10	16.12	-6.75
0	0.1	0.3	0.7	43.82	46.70	<b>48.38</b>	-3.60
0	0.05	0.15	0.35	<b>19.42</b>	18.12	19.12	-5.52
0	0.15	0.2	0.5	27.20	26.66	<b>28.24</b>	-5.93
0	0	0.1	0.6	34.04	34.94	<b>36.72</b>	-5.09
0	0	0.05	0.3	<b>15.64</b>	14.36	15.34	-6.82

**Table 73. Percentage of Rejection for K=4, t-Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.32</b>	4.14	4.38	-5.80
0	0.1	0.2	0.3	<b>16.66</b>	13.80	14.94	-8.26
0	0	0.25	0.25	<b>16.98</b>	13.58	14.60	-7.51
0	0.125	0.25	0.25	<b>15.02</b>	11.86	12.66	-6.75
0	0	0	0.5	<b>25.80</b>	23.08	24.76	-7.28
0.05	0.1	0.3	0.5	27.14	24.30	26.00	-7.00
0	0	0.5	0.5	36.58	35.46	<b>37.14</b>	-4.74
0	0.25	0.5	0.5	<b>31.48</b>	29.20	30.88	-5.75
0	0.5	0.5	1	60.52	61.06	<b>63.18</b>	-3.47
0	0.25	0.25	0.5	26.24	23.04	24.54	-6.51
0	0.25	0.25	0.25	<b>12.80</b>	10.36	10.86	-4.83
0.1	0.2	0.6	1	62.68	63.76	<b>65.94</b>	-3.42
0.25	0.25	0.5	0.5	<b>16.98</b>	13.58	14.60	-7.51
0	0.1	0.3	0.7	43.82	43.60	<b>45.30</b>	-3.90
0	0.05	0.15	0.35	<b>19.42</b>	16.30	17.64	-8.22
0	0.15	0.2	0.5	27.20	24.38	25.82	-5.91
0	0	0.1	0.6	34.04	31.94	33.60	-5.20
0	0	0.05	0.3	<b>15.64</b>	13.16	14.24	-8.21

**Table 74. Percentage of Rejection for K=4, t-Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.32</b>	4.54	3.86	14.98
0	0.1	0.2	0.3	16.66	<b>18.54</b>	14.64	21.04
0	0	0.25	0.25	16.98	<b>18.24</b>	14.60	19.96
0	0.125	0.25	0.25	15.02	<b>15.76</b>	12.68	19.54
0	0	0	0.5	25.80	<b>30.30</b>	22.92	24.36
0.05	0.1	0.3	0.5	27.14	<b>32.24</b>	24.80	23.08
0	0	0.5	0.5	36.58	<b>45.36</b>	35.16	22.49
0	0.25	0.5	0.5	31.48	<b>38.08</b>	29.02	23.79
0	0.5	0.5	1	60.52	<b>74.22</b>	61.92	16.57
0	0.25	0.25	0.5	26.24	<b>30.68</b>	23.46	23.53
0	0.25	0.25	0.25	12.80	<b>12.96</b>	10.98	15.28
0.1	0.2	0.6	1	62.68	<b>76.38</b>	64.66	15.34
0.25	0.25	0.5	0.5	16.98	<b>18.24</b>	14.60	19.96
0	0.1	0.3	0.7	43.82	<b>54.6</b>	43.60	20.15
0	0.05	0.15	0.35	19.42	<b>21.38</b>	16.76	21.61
0	0.15	0.2	0.5	27.20	<b>32.36</b>	24.40	24.60
0	0	0.1	0.6	34.04	<b>42.46</b>	32.50	23.46
0	0	0.05	0.3	15.64	<b>16.90</b>	13.52	20.00

**Table 75. Percentage of Rejection for K=4, t-Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.32</b>	3.54	2.68	24.29
0	0.1	0.2	0.3	<b>16.66</b>	15.62	10.14	35.08
0	0	0.25	0.25	<b>16.98</b>	15.22	10.42	31.54
0	0.125	0.25	0.25	<b>15.02</b>	13.14	8.86	32.57
0	0	0	0.5	25.80	<b>26.44</b>	18.16	31.32
0.05	0.1	0.3	0.5	27.14	<b>28.46</b>	19.32	32.12
0	0	0.5	0.5	36.58	<b>40.72</b>	28.10	30.99
0	0.25	0.5	0.5	31.48	<b>33.82</b>	23.16	31.52
0	0.5	0.5	1	60.52	<b>69.90</b>	53.30	23.75
0	0.25	0.25	0.5	26.24	<b>26.72</b>	18.42	31.06
0	0.25	0.25	0.25	<b>12.80</b>	10.68	7.36	31.09
0.1	0.2	0.6	1	62.68	<b>72.06</b>	56.30	21.87
0.25	0.25	0.5	0.5	<b>16.98</b>	15.22	10.42	31.54
0	0.1	0.3	0.7	43.82	<b>50.02</b>	36.08	27.87
0	0.05	0.15	0.35	<b>19.42</b>	18.46	12.20	33.91
0	0.15	0.2	0.5	27.2	<b>28.14</b>	19.12	32.05
0	0	0.1	0.6	34.04	<b>37.64</b>	25.86	31.30
0	0	0.05	0.3	<b>15.64</b>	14.32	9.56	33.24

**Table 76. Percentage of Rejection for K=4, t-Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.10</b>	4.9	4.7	4.08
0	0.1	0.2	0.3	<b>23.96</b>	21.52	23.20	-7.81
0	0	0.25	0.25	<b>23.96</b>	21.50	23.40	-8.84
0	0.125	0.25	0.25	<b>20.64</b>	18.60	19.64	-5.59
0	0	0	0.5	<b>39.28</b>	36.28	<b>39.46</b>	-8.77
0.05	0.1	0.3	0.5	41.10	38.36	<b>41.64</b>	-8.55
0	0	0.5	0.5	57.10	53.56	<b>57.98</b>	-8.25
0	0.25	0.5	0.5	48.06	44.96	<b>48.98</b>	-8.94
0	0.5	0.5	1	85.40	82.14	<b>85.88</b>	-4.55
0	0.25	0.25	0.5	39.54	36.42	<b>39.72</b>	-9.06
0	0.25	0.25	0.25	<b>17.28</b>	15.62	16.38	-4.87
0.1	0.2	0.6	1	86.76	84.00	<b>87.62</b>	-4.31
0.25	0.25	0.5	0.5	<b>23.96</b>	21.5	23.40	-8.84
0	0.1	0.3	0.7	67.04	63.56	<b>68.02</b>	-7.02
0	0.05	0.15	0.35	<b>28.56</b>	25.40	28.42	-11.89
0	0.15	0.2	0.5	41.26	38.32	<b>41.74</b>	-8.92
0	0	0.1	0.6	53.18	49.76	<b>53.80</b>	-8.12
0	0	0.05	0.3	<b>22.40</b>	19.98	21.30	-6.61

**Table 77. Percentage of Rejection for K=4, t-Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.10</b>	4.10	4.26	-3.90
0	0.1	0.2	0.3	<b>23.96</b>	19.48	22.10	-13.45
0	0	0.25	0.25	<b>23.96</b>	19.84	21.98	-10.79
0	0.125	0.25	0.25	<b>20.64</b>	16.70	18.56	-11.14
0	0	0	0.5	<b>39.28</b>	33.58	37.60	-11.97
0.05	0.1	0.3	0.5	<b>41.10</b>	35.50	39.76	-12.00
0	0	0.5	0.5	<b>57.10</b>	51.48	57.00	-10.72
0	0.25	0.5	0.5	<b>48.06</b>	42.64	47.22	-10.74
0	0.5	0.5	1	<b>85.40</b>	80.90	85.12	-5.22
0	0.25	0.25	0.5	<b>39.54</b>	34.02	38.10	-11.99
0	0.25	0.25	0.25	<b>17.28</b>	13.90	15.68	-12.81
0.1	0.2	0.6	1	86.76	82.54	<b>87.24</b>	-5.69
0.25	0.25	0.5	0.5	<b>23.96</b>	19.84	21.98	-10.79
0	0.1	0.3	0.7	<b>67.04</b>	61.48	66.78	-8.62
0	0.05	0.15	0.35	<b>28.56</b>	23.70	26.70	-12.66
0	0.15	0.2	0.5	<b>41.26</b>	35.58	40.10	-12.70
0	0	0.1	0.6	<b>53.18</b>	47.50	52.10	-9.68
0	0	0.05	0.3	<b>22.40</b>	18.12	20.20	-11.48



**Table 78. Percentage of Rejection for K=4, t-Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.10</b>	4.36	4.22	3.21
0	0.1	0.2	0.3	23.96	<b>24.52</b>	19.96	18.60
0	0	0.25	0.25	23.96	<b>24.10</b>	19.56	18.84
0	0.125	0.25	0.25	<b>20.64</b>	20.38	17.30	15.11
0	0	0	0.5	39.28	<b>40.98</b>	33.34	18.64
0.05	0.1	0.3	0.5	41.10	<b>43.42</b>	34.94	19.53
0	0	0.5	0.5	57.10	<b>61.26</b>	50.46	17.63
0	0.25	0.5	0.5	48.06	<b>51.38</b>	41.44	19.35
0	0.5	0.5	1	85.40	<b>88.68</b>	80.72	8.98
0	0.25	0.25	0.5	39.54	<b>41.50</b>	33.58	19.08
0	0.25	0.25	0.25	<b>17.28</b>	16.90	14.14	16.33
0.1	0.2	0.6	1	86.76	<b>90.14</b>	82.88	8.05
0.25	0.25	0.5	0.5	23.96	<b>24.10</b>	19.56	18.84
0	0.1	0.3	0.7	67.04	<b>71.48</b>	61.10	14.52
0	0.05	0.15	0.35	28.56	<b>29.16</b>	23.74	18.59
0	0.15	0.2	0.5	41.26	<b>43.22</b>	35.08	18.83
0	0	0.1	0.6	53.18	<b>56.76</b>	46.98	17.23
0	0	0.05	0.3	22.40	<b>22.68</b>	18.38	18.96

**Table 79. Percentage of Rejection for K=4, t-Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>5.10</b>	3.48	3.00	13.79
0	0.1	0.2	0.3	<b>23.96</b>	21.42	15.88	25.86
0	0	0.25	0.25	<b>23.96</b>	21.72	16.06	26.06
0	0.125	0.25	0.25	<b>20.64</b>	17.96	13.18	26.61
0	0	0	0.5	39.28	37.80	27.90	26.19
0.05	0.1	0.3	0.5	41.10	39.70	29.68	25.24
0	0	0.5	0.5	57.10	57.04	44.66	21.70
0	0.25	0.5	0.5	48.06	47.54	36.52	23.18
0	0.5	0.5	1	85.40	86.22	76.4	11.39
0	0.25	0.25	0.5	39.54	37.60	28.10	25.27
0	0.25	0.25	0.25	<b>17.28</b>	14.62	10.86	25.72
0.1	0.2	0.6	1	86.76	<b>88.22</b>	79.16	10.27
0.25	0.25	0.5	0.5	<b>23.96</b>	21.72	16.06	26.06
0	0.1	0.3	0.7	67.04	<b>67.52</b>	55.10	18.39
0	0.05	0.15	0.35	28.56	25.88	19.44	24.88
0	0.15	0.2	0.5	41.26	39.24	29.70	24.31
0	0	0.1	0.6	53.18	52.90	41.26	22.00
0	0	0.05	0.3	22.40	19.78	14.70	25.68

**Table 80. Percentage of Rejection for K=4, t-Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.36	4.32	4.82	-11.57
0	0.1	0.2	0.3	25.88	24.92	26.46	-6.18
0	0	0.25	0.25	25.78	24.98	26.64	-6.65
0	0.125	0.25	0.25	21.86	21.04	22.32	-6.08
0	0	0	0.5	42.68	41.58	44.34	-6.64
0.05	0.1	0.3	0.5	45.30	44.40	47.28	-6.49
0	0	0.5	0.5	63.62	61.58	64.82	-5.26
0	0.25	0.5	0.5	53.60	52.00	55.32	-6.79
0	0.5	0.5	1	90.98	88.8	91.24	-2.75
0	0.25	0.25	0.5	43.84	42.68	45.24	-6.00
0	0.25	0.25	0.25	18.02	17.40	18.46	-6.09
0.1	0.2	0.6	1	92.30	90.58	92.80	-2.45
0.25	0.25	0.5	0.5	25.78	24.98	26.64	-6.65
0	0.1	0.3	0.7	74.24	71.82	75.54	-5.18
0	0.05	0.15	0.35	30.92	29.98	32.06	-6.94
0	0.15	0.2	0.5	45.62	44.44	47.5	-6.89
0	0	0.1	0.6	58.80	56.90	60.34	-6.05
0	0	0.05	0.3	24.12	28.08	30.28	-7.83

**Table 81. Percentage of Rejection for K=4, t-Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.36	3.8	4.18	-10.00
0	0.1	0.2	0.3	25.88	22.52	24.40	-8.35
0	0	0.25	0.25	25.78	22.54	24.40	-8.25
0	0.125	0.25	0.25	21.86	18.88	20.36	-7.84
0	0	0	0.5	42.68	38.98	42.20	-8.26
0.05	0.1	0.3	0.5	45.30	41.48	44.80	-8.00
0	0	0.5	0.5	63.62	58.72	62.72	-6.81
0	0.25	0.5	0.5	53.60	49.06	53.32	-8.68
0	0.5	0.5	1	90.98	87.9	90.48	-2.94
0	0.25	0.25	0.5	43.84	39.46	42.86	-8.62
0	0.25	0.25	0.25	18.02	15.70	16.90	-7.64
0.1	0.2	0.6	1	92.30	89.78	92.18	-2.67
0.25	0.25	0.5	0.5	25.78	22.54	24.40	-8.25
0	0.1	0.3	0.7	74.24	69.74	73.78	-5.79
0	0.05	0.15	0.35	30.92	27.22	29.8	-9.48
0	0.15	0.2	0.5	45.62	41.46	44.90	-8.30
0	0	0.1	0.6	58.80	54.56	58.46	-7.15
0	0	0.05	0.3	24.12	20.74	22.74	-9.64

**Table 82. Percentage of Rejection for K=4, t-Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.36</b>	4.02	3.96	1.49
0	0.1	0.2	0.3	<b>25.88</b>	<b>27.60</b>	20.66	25.14
0	0	0.25	0.25	<b>25.78</b>	<b>27.96</b>	20.52	26.61
0	0.125	0.25	0.25	<b>21.86</b>	<b>23.44</b>	17.08	27.13
0	0	0	0.5	42.68	<b>47.98</b>	35.62	25.76
0.05	0.1	0.3	0.5	45.30	<b>50.94</b>	37.80	25.80
0	0	0.5	0.5	63.62	<b>69.96</b>	53.76	23.16
0	0.25	0.5	0.5	53.60	<b>59.72</b>	44.70	25.15
0	0.5	0.5	1	90.98	<b>94.72</b>	83.58	11.76
0	0.25	0.25	0.5	43.84	<b>47.96</b>	35.74	25.48
0	0.25	0.25	0.25	18.02	<b>18.98</b>	14.32	24.55
0.1	0.2	0.6	1	92.30	<b>95.74</b>	86.08	10.09
0.25	0.25	0.5	0.5	25.78	<b>27.96</b>	20.52	26.61
0	0.1	0.3	0.7	74.24	<b>79.74</b>	64.54	19.06
0	0.05	0.15	0.35	30.92	<b>33.58</b>	24.42	27.28
0	0.15	0.2	0.5	45.62	<b>50.28</b>	37.12	26.17
0	0	0.1	0.6	58.80	<b>65.98</b>	49.66	24.73
0	0	0.05	0.3	24.12	<b>26.00</b>	19.30	25.77

**Table 83. Percentage of Rejection for K=4, t-Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.36</b>	3.34	2.52	24.55
0	0.1	0.2	0.3	<b>25.88</b>	24.34	15.64	35.74
0	0	0.25	0.25	<b>25.78</b>	24.50	15.78	35.59
0	0.125	0.25	0.25	<b>21.86</b>	20.40	13.00	36.27
0	0	0	0.5	42.68	<b>43.6</b>	29.02	33.44
0.05	0.1	0.3	0.5	45.30	<b>46.34</b>	31.52	31.98
0	0	0.5	0.5	63.62	<b>66.16</b>	46.74	29.35
0	0.25	0.5	0.5	53.60	<b>55.46</b>	38.22	31.08
0	0.5	0.5	1	90.98	<b>93.22</b>	79.66	14.55
0	0.25	0.25	0.5	43.84	<b>43.96</b>	29.76	32.30
0	0.25	0.25	0.25	<b>18.02</b>	16.56	10.66	35.63
0.1	0.2	0.6	1	92.30	<b>94.66</b>	82.10	13.27
0.25	0.25	0.5	0.5	<b>25.78</b>	24.50	15.78	35.59
0	0.1	0.3	0.7	74.24	<b>76.72</b>	57.24	25.39
0	0.05	0.15	0.35	30.92	29.88	19.26	35.54
0	0.15	0.2	0.5	45.62	<b>46.04</b>	31.48	31.62
0	0	0.1	0.6	58.80	<b>61.60</b>	42.98	30.23
0	0	0.05	0.3	<b>24.12</b>	22.90	14.48	36.76

**Table 84. Percentage of Rejection for K=4, t-Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.36	<b>4.46</b>	4.30	3.59
0	0.1	0.2	0.3	25.88	<b>33.42</b>	20.76	37.88
0	0	0.25	0.25	25.78	<b>33.54</b>	21.04	37.27
0	0.125	0.25	0.25	21.86	<b>28.12</b>	17.86	36.49
0	0	0	0.5	42.68	<b>57.78</b>	34.42	40.43
0.05	0.1	0.3	0.5	45.30	<b>61.58</b>	37.06	39.82
0	0	0.5	0.5	63.62	<b>79.42</b>	53.72	32.36
0	0.25	0.5	0.5	53.60	<b>70.72</b>	44.22	37.47
0	0.5	0.5	1	90.98	<b>97.90</b>	83.40	14.81
0	0.25	0.25	0.5	43.84	<b>58.52</b>	35.18	39.88
0	0.25	0.25	0.25	18.02	<b>23.18</b>	15.06	35.03
0.1	0.2	0.6	1	92.30	<b>98.38</b>	85.92	12.67
0.25	0.25	0.5	0.5	25.78	<b>33.54</b>	21.04	37.27
0	0.1	0.3	0.7	74.24	<b>87.70</b>	64.42	26.55
0	0.05	0.15	0.35	30.92	<b>40.84</b>	24.70	39.52
0	0.15	0.2	0.5	45.62	<b>61.08</b>	37.12	39.23
0	0	0.1	0.6	58.80	<b>75.58</b>	49.44	34.59
0	0	0.05	0.3	24.12	<b>30.92</b>	19.48	37.00

**Table 85. Percentage of Rejection for K=4, t-Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	<b>4.36</b>	3.34	2.34	29.94
0	0.1	0.2	0.3	25.88	<b>29.06</b>	14.24	51.00
0	0	0.25	0.25	25.78	<b>28.98</b>	13.98	51.76
0	0.125	0.25	0.25	21.86	<b>24.24</b>	11.74	51.57
0	0	0	0.5	42.68	<b>52.52</b>	25.46	51.52
0.05	0.1	0.3	0.5	45.30	<b>55.90</b>	27.20	51.34
0	0	0.5	0.5	63.62	<b>75.58</b>	42.00	44.43
0	0.25	0.5	0.5	53.60	<b>65.92</b>	33.42	49.30
0	0.5	0.5	1	90.98	<b>96.84</b>	74.98	22.57
0	0.25	0.25	0.5	43.84	<b>53.46</b>	25.98	51.40
0	0.25	0.25	0.25	18.02	<b>19.36</b>	9.74	49.69
0.1	0.2	0.6	1	92.30	<b>97.66</b>	77.48	20.66
0.25	0.25	0.5	0.5	25.78	<b>28.98</b>	13.98	51.76
0	0.1	0.3	0.7	74.24	<b>85.12</b>	52.62	38.18
0	0.05	0.15	0.35	30.92	<b>35.92</b>	17.18	52.17
0	0.15	0.2	0.5	45.62	<b>55.82</b>	27.28	51.13
0	0	0.1	0.6	58.80	<b>70.90</b>	38.32	45.95
0	0	0.05	0.3	24.12	<b>26.80</b>	13.16	50.89

**Table 86. Percentage of Rejection for K=5, Normal Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.58</b>	4.64	4.46	3.88
0.05	0.15	0.25	0.35	0.45	<b>31.40</b>	32.06	<b>33.70</b>	-5.12
0	0.025	0.075	0.175	0.375	<b>27.20</b>	27.32	<b>28.50</b>	-4.32
0	0	0	0	0.5	30.42	31.02	<b>32.60</b>	-5.09
0	0	0	0.125	0.25	18.28	17.50	<b>18.30</b>	-4.57
0	0	0.125	0.25	0.25	22.28	21.16	<b>22.46</b>	-6.14
0	0.05	0.05	0.3	0.3	25.76	25.32	<b>26.28</b>	-3.79
0.05	0.2	0.3	0.4	0.5	35.38	36.58	<b>38.34</b>	-4.81
0	0	0	0.25	0.5	40.82	43.72	<b>45.30</b>	-3.61
0	0	0	0.35	0.35	33.50	33.98	<b>35.68</b>	-5.00
0	0	0.25	0.25	0.5	41.40	44.00	<b>45.86</b>	-4.23
0	0.125	0.25	0.25	0.25	18.20	17.32	<b>18.24</b>	-5.31
0	0.125	0.125	0.125	0.25	<b>14.54</b>	14.2	14.22	-0.14
0.125	0.125	0.125	0.25	0.25	<b>12.04</b>	11.00	10.94	0.55
0	0	0	0.1	0.3	20.14	19.68	<b>20.68</b>	-5.08
0	0	0	0.2	0.7	56.24	59.90	<b>61.96</b>	-3.44
0	0.1	0.1	0.6	0.6	60.76	65.06	<b>66.96</b>	-2.92
0	0.1	0.3	0.4	0.4	35.50	36.66	<b>38.44</b>	-4.86
0	0.05	0.2	0.4	0.4	37.52	39.16	<b>40.72</b>	-3.98

**Table 87. Percentage of Rejection for K=5, Normal Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.58</b>	3.78	3.98	-5.29
0.05	0.15	0.25	0.35	0.45	<b>31.40</b>	28.58	31.00	-8.47
0	0.025	0.075	0.175	0.375	<b>27.20</b>	24.36	26.18	-7.47
0	0	0	0	0.5	30.42	27.92	<b>30.60</b>	-9.60
0	0	0	0.125	0.25	<b>18.28</b>	15.00	16.60	-10.67
0	0	0.125	0.25	0.25	<b>22.28</b>	18.48	20.14	-8.98
0	0.05	0.05	0.3	0.3	25.76	22.44	24.44	-8.91
0.05	0.2	0.3	0.4	0.5	35.38	32.84	35.24	-7.31
0	0	0	0.25	0.5	40.82	40.12	<b>42.04</b>	-4.79
0	0	0	0.35	0.35	<b>33.50</b>	30.26	33.04	-9.19
0	0	0.25	0.25	0.5	41.40	40.04	<b>42.56</b>	-6.29
0	0.125	0.25	0.25	0.25	<b>18.20</b>	15.04	16.44	-9.31
0	0.125	0.125	0.125	0.25	<b>14.54</b>	11.96	12.70	-6.19
0.125	0.125	0.125	0.25	0.25	<b>12.04</b>	9.34	9.92	-6.21
0	0	0	0.1	0.3	<b>20.14</b>	17.40	18.92	-8.74
0	0	0	0.2	0.7	56.24	56.30	<b>58.98</b>	-4.76
0	0.1	0.1	0.6	0.6	60.76	61.80	<b>64.54</b>	-4.43
0	0.1	0.3	0.4	0.4	<b>35.50</b>	32.62	35.38	-8.46
0	0.05	0.2	0.4	0.4	37.52	35.28	<b>37.94</b>	-7.54

**Table 88. Percentage of Rejection for K=5, Normal Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.66</b>	4.50	3.80	15.56
0.05	0.15	0.25	0.35	0.45	30.10	<b>37.08</b>	29.80	19.63
0	0.025	0.075	0.175	0.375	26.52	<b>31.54</b>	25.84	18.07
0	0	0	0	0.5	29.84	<b>36.12</b>	29.42	18.55
0	0	0	0.125	0.25	17.44	<b>18.80</b>	15.66	16.70
0	0	0.125	0.25	0.25	21.76	<b>24.44</b>	20.50	16.12
0	0.05	0.05	0.3	0.3	25.10	<b>29.22</b>	24.06	17.66
0.05	0.2	0.3	0.4	0.5	34.24	<b>42.26</b>	34.68	17.94
0	0	0	0.25	0.5	40.56	<b>49.84</b>	41.82	16.09
0	0	0	0.35	0.35	32.06	<b>39.38</b>	32.40	17.72
0	0	0.25	0.25	0.5	41.06	<b>50.14</b>	41.96	16.31
0	0.125	0.25	0.25	0.25	17.72	<b>18.56</b>	15.78	14.98
0	0.125	0.125	0.125	0.25	13.74	<b>14.56</b>	12.38	14.97
0.125	0.125	0.125	0.25	0.25	12.04	<b>11.96</b>	9.90	17.22
0	0	0	0.1	0.3	20.14	<b>22.94</b>	19.24	16.13
0	0	0	0.2	0.7	56.24	<b>68.94</b>	58.80	14.71
0	0.1	0.1	0.6	0.6	60.76	<b>74.20</b>	64.06	13.67
0	0.1	0.3	0.4	0.4	35.50	<b>43.42</b>	35.70	17.78
0	0.05	0.2	0.4	0.4	37.52	<b>45.86</b>	38.22	16.66

**Table 89. Percentage of Rejection for K=5, Normal Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.66	3.02	2.34	22.52
0.05	0.15	0.25	0.35	0.45	30.10	<b>31.84</b>	22.66	28.83
0	0.025	0.075	0.175	0.375	26.52	<b>27.06</b>	18.90	30.16
0	0	0	0	0.5	29.84	<b>30.96</b>	21.96	29.07
0	0	0	0.125	0.25	17.44	15.64	11.12	28.90
0	0	0.125	0.25	0.25	21.76	20.66	14.24	31.07
0	0.05	0.05	0.3	0.3	25.10	24.62	17.18	30.22
0.05	0.2	0.3	0.4	0.5	34.24	<b>37.10</b>	26.66	28.14
0	0	0	0.25	0.5	40.56	<b>44.80</b>	33.02	26.29
0	0	0	0.35	0.35	32.06	<b>34.76</b>	24.50	29.52
0	0	0.25	0.25	0.5	41.06	<b>44.96</b>	33.24	26.07
0	0.125	0.25	0.25	0.25	17.72	15.68	11.22	28.44
0	0.125	0.125	0.125	0.25	13.74	11.72	8.28	29.35
0.125	0.125	0.125	0.25	0.25	12.04	9.10	6.36	30.11
0	0	0	0.1	0.3	20.14	18.86	13.30	29.48
0	0	0	0.2	0.7	56.24	<b>63.96</b>	50.48	21.08
0	0.1	0.1	0.6	0.6	60.76	<b>69.26</b>	56.40	18.57
0	0.1	0.3	0.4	0.4	35.50	<b>38.26</b>	27.48	28.18
0	0.05	0.2	0.4	0.4	37.52	<b>41.10</b>	29.82	27.45

**Table 90. Percentage of Rejection for K=5, Normal Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.48</b>	4.82	5.06	-4.98
0.05	0.15	0.25	0.35	0.45	46.58	44.00	<b>50.02</b>	-13.68
0	0.025	0.075	0.175	0.375	40.12	37.96	<b>43.12</b>	-13.59
0	0	0	0	0.5	45.66	43.10	<b>49.04</b>	-13.78
0	0	0	0.125	0.25	25.58	22.52	<b>26.54</b>	-17.85
0	0	0.125	0.25	0.25	32.38	29.14	<b>33.48</b>	-14.89
0	0.05	0.05	0.3	0.3	37.00	35.28	<b>39.96</b>	-13.27
0.05	0.2	0.3	0.4	0.5	52.84	50.26	<b>56.42</b>	-12.26
0	0	0	0.25	0.5	61.48	59.24	<b>65.48</b>	-10.53
0	0	0	0.35	0.35	49.46	47.48	<b>53.60</b>	-12.89
0	0	0.25	0.25	0.5	61.66	59.16	<b>66.00</b>	-11.56
0	0.125	0.25	0.25	0.25	25.90	23.04	<b>26.88</b>	-16.67
0	0.125	0.125	0.125	0.25	19.64	17.66	<b>20.42</b>	-15.63
0.125	0.125	0.125	0.25	0.25	14.48	13.34	<b>15.32</b>	-14.84
0	0	0	0.1	0.3	28.9	25.94	<b>30.80</b>	-18.74
0	0	0	0.2	0.7	79.54	76.68	<b>83.38</b>	-8.74
0	0.1	0.1	0.6	0.6	84.00	81.84	<b>87.30</b>	-6.67
0	0.1	0.3	0.4	0.4	52.78	49.94	<b>56.34</b>	-12.82
0	0.05	0.2	0.4	0.4	55.94	53.56	<b>59.92</b>	-11.87

**Table 91. Percentage of Rejection for K=5, Normal Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.48</b>	3.96	4.72	-19.19
0.05	0.15	0.25	0.35	0.45	46.58	41.20	<b>48.08</b>	-16.70
0	0.025	0.075	0.175	0.375	40.12	34.60	<b>41.30</b>	-19.36
0	0	0	0	0.5	45.66	39.90	<b>47.26</b>	-18.45
0	0	0	0.125	0.25	<b>25.58</b>	20.42	20.52	-0.49
0	0	0.125	0.25	0.25	<b>32.38</b>	26.68	32.20	-20.69
0	0.05	0.05	0.3	0.3	37.00	31.94	<b>38.40</b>	-20.23
0.05	0.2	0.3	0.4	0.5	52.84	47.32	<b>54.86</b>	-15.93
0	0	0	0.25	0.5	61.48	56.62	<b>64.06</b>	-13.14
0	0	0	0.35	0.35	49.46	44.62	<b>51.66</b>	-15.78
0	0	0.25	0.25	0.5	61.66	56.66	<b>64.64</b>	-14.08
0	0.125	0.25	0.25	0.25	25.90	20.94	<b>25.90</b>	-23.69
0	0.125	0.125	0.125	0.25	<b>19.64</b>	15.64	19.40	-24.04
0.125	0.125	0.125	0.25	0.25	<b>14.48</b>	11.44	14.36	-25.52
0	0	0	0.1	0.3	28.90	23.62	<b>29.46</b>	-24.72
0	0	0	0.2	0.7	79.54	74.96	<b>82.36</b>	-9.87
0	0.1	0.1	0.6	0.6	84.00	80.68	<b>86.16</b>	-6.79
0	0.1	0.3	0.4	0.4	52.78	47.62	<b>55.26</b>	-16.04
0	0.05	0.2	0.4	0.4	55.94	50.70	<b>58.34</b>	-15.07

**Table 92. Percentage of Rejection for K=5, Normal Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.70</b>	4.00	4.00	0.00
0.05	0.15	0.25	0.35	0.45	47.86	<b>50.00</b>	43.92	12.16
0	0.025	0.075	0.175	0.375	41.14	<b>43.86</b>	38.20	12.90
0	0	0	0	0.5	47.58	<b>49.28</b>	42.62	13.51
0	0	0	0.125	0.25	25.98	<b>26.52</b>	23.24	12.37
0	0	0.125	0.25	0.25	32.54	<b>34.18</b>	29.72	13.05
0	0.05	0.05	0.3	0.3	38.34	<b>40.92</b>	35.52	13.20
0.05	0.2	0.3	0.4	0.5	54.10	<b>56.80</b>	50.24	11.55
0	0	0	0.25	0.5	62.80	<b>66.26</b>	59.22	10.62
0	0	0	0.35	0.35	51.02	<b>53.52</b>	47.20	11.81
0	0	0.25	0.25	0.5	64.72	<b>66.82</b>	59.24	11.34
0	0.125	0.25	0.25	0.25	25.56	<b>26.90</b>	23.12	14.05
0	0.125	0.125	0.125	0.25	19.10	<b>20.44</b>	17.62	13.80
0.125	0.125	0.125	0.25	0.25	14.56	<b>14.48</b>	12.88	11.05
0	0	0	0.1	0.3	30.32	<b>31.28</b>	27.02	13.62
0	0	0	0.2	0.7	81.30	<b>85.44</b>	78.86	7.70
0	0.1	0.1	0.6	0.6	85.40	<b>89.06</b>	83.82	5.88
0	0.1	0.3	0.4	0.4	54.02	<b>56.60</b>	49.86	11.91
0	0.05	0.2	0.4	0.4	57.64	<b>60.22</b>	52.84	12.26

**Table 93. Percentage of Rejection for K=5, Normal Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.70</b>	3.04	2.48	18.42
0.05	0.15	0.25	0.35	0.45	47.86	46.28	38.14	17.59
0	0.025	0.075	0.175	0.375	<b>41.14</b>	40.02	32.50	18.79
0	0	0	0	0.5	47.58	45.34	37.64	16.98
0	0	0	0.125	0.25	<b>25.98</b>	22.98	18.40	19.93
0	0	0.125	0.25	0.25	<b>32.54</b>	30.32	24.44	19.39
0	0.05	0.05	0.3	0.3	<b>38.34</b>	36.68	30.16	17.78
0.05	0.2	0.3	0.4	0.5	<b>54.10</b>	52.96	44.68	15.63
0	0	0	0.25	0.5	62.80	<b>62.90</b>	53.64	14.72
0	0	0	0.35	0.35	<b>51.02</b>	49.64	41.88	15.63
0	0	0.25	0.25	0.5	<b>64.72</b>	63.20	53.62	15.16
0	0.125	0.25	0.25	0.25	<b>25.56</b>	23.00	18.16	21.04
0	0.125	0.125	0.125	0.25	<b>19.10</b>	16.78	13.22	21.22
0.125	0.125	0.125	0.25	0.25	<b>14.56</b>	11.82	9.58	18.95
0	0	0	0.1	0.3	<b>30.32</b>	26.64	21.64	18.77
0	0	0	0.2	0.7	81.30	<b>82.88</b>	74.84	9.70
0	0.1	0.1	0.6	0.6	85.40	<b>87.2</b>	80.24	7.98
0	0.1	0.3	0.4	0.4	<b>54.02</b>	52.98	44.52	15.97
0	0.05	0.2	0.4	0.4	<b>57.64</b>	56.46	47.70	15.52



**Table 94. Percentage of Rejection for K=5, Normal Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.06</b>	4.58	4.64	-1.31
0.05	0.15	0.25	0.35	0.45	55.66	51.60	<b>56.86</b>	-10.19
0	0.025	0.075	0.175	0.375	48.06	44.74	<b>49.66</b>	-11.00
0	0	0	0	0.5	53.90	50.66	<b>55.56</b>	-9.67
0	0	0	0.125	0.25	29.42	27.90	<b>30.98</b>	-11.04
0	0	0.125	0.25	0.25	37.76	35.12	<b>39.00</b>	-11.05
0	0.05	0.05	0.3	0.3	44.52	41.30	<b>45.80</b>	-10.90
0.05	0.2	0.3	0.4	0.5	62.36	58.38	<b>63.92</b>	-9.49
0	0	0	0.25	0.5	71.70	67.32	<b>73.06</b>	-8.53
0	0	0	0.35	0.35	58.74	54.28	<b>60.25</b>	-11.00
0	0	0.25	0.25	0.5	71.62	67.86	<b>73.06</b>	-7.66
0	0.125	0.25	0.25	0.25	29.58	27.52	<b>30.60</b>	-11.19
0	0.125	0.125	0.125	0.25	22.56	21.06	<b>24.06</b>	-14.25
0.125	0.125	0.125	0.25	0.25	16.16	15.28	<b>17.00</b>	-11.26
0	0	0	0.1	0.3	34.20	32.04	<b>35.32</b>	-10.24
0	0	0	0.2	0.7	88.34	85.46	<b>89.82</b>	-5.10
0	0.1	0.1	0.6	0.6	90.98	89.96	<b>92.88</b>	-3.25
0	0.1	0.3	0.4	0.4	62.58	58.18	<b>63.66</b>	-9.42
0	0.05	0.2	0.4	0.4	65.72	62.18	<b>66.78</b>	-7.40

**Table 95. Percentage of Rejection for K=5, Normal Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.06</b>	3.58	4.04	-12.85
0.05	0.15	0.25	0.35	0.45	55.66	48.42	55.20	-14.00
0	0.025	0.075	0.175	0.375	48.06	41.48	46.88	-13.02
0	0	0	0	0.5	53.90	47.76	<b>54.02</b>	-13.11
0	0	0	0.125	0.25	29.42	24.76	28.88	-16.64
0	0	0.125	0.25	0.25	37.76	32.12	37.18	-15.75
0	0.05	0.05	0.3	0.3	44.52	38.08	43.52	-14.29
0.05	0.2	0.3	0.4	0.5	62.36	55.82	62.08	-11.21
0	0	0	0.25	0.5	71.70	65.24	<b>72.02</b>	-10.39
0	0	0	0.35	0.35	58.74	51.96	57.66	-10.97
0	0	0.25	0.25	0.5	71.62	66.00	<b>71.84</b>	-8.85
0	0.125	0.25	0.25	0.25	29.58	24.82	28.66	-15.47
0	0.125	0.125	0.125	0.25	22.56	18.66	21.54	-15.43
0.125	0.125	0.125	0.25	0.25	16.16	13.08	15.36	-17.43
0	0	0	0.1	0.3	34.20	28.5	32.94	-15.58
0	0	0	0.2	0.7	88.34	84.58	<b>89.00</b>	-5.23
0	0.1	0.1	0.6	0.6	90.98	88.96	<b>92.46</b>	-3.93
0	0.1	0.3	0.4	0.4	62.58	56.38	61.94	-9.86
0	0.05	0.2	0.4	0.4	65.72	59.04	65.22	-10.47

**Table 96. Percentage of Rejection for K=5, Normal Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.88</b>	4.50	3.94	12.44
0.05	0.15	0.25	0.35	0.45	56.20	<b>60.56</b>	48.86	19.32
0	0.025	0.075	0.175	0.375	49.08	<b>52.38</b>	41.66	20.47
0	0	0	0	0.5	55.38	<b>59.32</b>	48.04	19.02
0	0	0	0.125	0.25	30.44	<b>31.04</b>	25.18	18.88
0	0	0.125	0.25	0.25	38.76	<b>41.04</b>	32.54	20.71
0	0.05	0.05	0.3	0.3	45.44	<b>48.48</b>	38.68	20.21
0.05	0.2	0.3	0.4	0.5	62.74	<b>67.88</b>	55.12	18.80
0	0	0	0.25	0.5	71.70	<b>77.12</b>	65.30	15.33
0	0	0	0.35	0.35	59.24	<b>64.20</b>	51.94	19.10
0	0	0.25	0.25	0.5	71.90	<b>77.06</b>	65.38	15.16
0	0.125	0.25	0.25	0.25	30.92	<b>31.56</b>	25.16	20.28
0	0.125	0.125	0.125	0.25	<b>23.26</b>	23.22	18.08	22.14
0.125	0.125	0.125	0.25	0.25	<b>17.44</b>	16.30	13.24	18.77
0	0	0	0.1	0.3	35.52	<b>36.96</b>	29.54	20.08
0	0	0	0.2	0.7	87.96	<b>91.70</b>	83.86	8.55
0	0.1	0.1	0.6	0.6	91.14	<b>94.30</b>	87.84	6.85
0	0.1	0.3	0.4	0.4	62.44	<b>67.90</b>	55.02	18.97
0	0.05	0.2	0.4	0.4	65.98	<b>71.52</b>	58.64	18.01

**Table 97. Percentage of Rejection for K=5, Normal Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.88</b>	3.28	2.26	31.10
0.05	0.15	0.25	0.35	0.45	56.20	<b>56.36</b>	41.62	26.15
0	0.025	0.075	0.175	0.375	<b>49.08</b>	47.64	34.26	28.09
0	0	0	0	0.5	<b>55.38</b>	55.34	41.54	24.94
0	0	0	0.125	0.25	<b>30.44</b>	27.18	19.02	30.02
0	0	0.125	0.25	0.25	<b>38.76</b>	36.44	25.48	30.08
0	0.05	0.05	0.3	0.3	<b>45.44</b>	44.26	31.00	29.96
0.05	0.2	0.3	0.4	0.5	62.74	<b>64.00</b>	48.84	23.69
0	0	0	0.25	0.5	71.70	<b>74.12</b>	59.08	20.29
0	0	0	0.35	0.35	59.24	<b>60.10</b>	45.22	24.76
0	0	0.25	0.25	0.5	71.90	<b>74.2</b>	58.86	20.67
0	0.125	0.25	0.25	0.25	<b>30.92</b>	27.14	18.74	30.95
0	0.125	0.125	0.125	0.25	<b>23.26</b>	19.64	13.24	32.59
0.125	0.125	0.125	0.25	0.25	<b>17.44</b>	13.48	8.96	33.53
0	0	0	0.1	0.3	<b>35.52</b>	32.52	22.70	30.20
0	0	0	0.2	0.7	87.96	<b>90.36</b>	79.96	11.51
0	0.1	0.1	0.6	0.6	91.14	<b>93.36</b>	85.00	8.95
0	0.1	0.3	0.4	0.4	62.44	<b>64.12</b>	49.08	23.46
0	0.05	0.2	0.4	0.4	65.98	<b>67.8</b>	52.64	22.36

**Table 98. Percentage of Rejection for K=5, Normal Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.02	3.96	3.7	6.57
0.05	0.15	0.25	0.35	0.45	54.56	69.10	44.46	35.66
0	0.025	0.075	0.175	0.375	47.44	60.32	37.84	37.27
0	0	0	0	0.5	53.46	67.98	43.64	35.80
0	0	0	0.125	0.25	27.72	37.24	22.52	39.53
0	0	0.125	0.25	0.25	36.24	47.58	29.42	38.17
0	0.05	0.05	0.3	0.3	43.18	55.60	35.06	36.94
0.05	0.2	0.3	0.4	0.5	61.58	77.38	51.18	33.86
0	0	0	0.25	0.5	70.74	85.78	60.88	29.03
0	0	0	0.35	0.35	57.92	73.08	47.46	35.06
0	0	0.25	0.25	0.5	71.16	85.70	61.14	28.66
0	0.125	0.25	0.25	0.25	28.06	36.74	22.46	38.87
0	0.125	0.125	0.125	0.25	21.32	26.76	16.50	38.34
0.125	0.125	0.125	0.25	0.25	15.80	18.70	12.18	34.87
0	0	0	0.1	0.3	32.60	43.08	26.52	38.44
0	0	0	0.2	0.7	88.96	96.50	80.46	16.62
0	0.1	0.1	0.6	0.6	91.98	97.92	85.50	12.68
0	0.1	0.3	0.4	0.4	61.28	76.94	50.82	33.95
0	0.05	0.2	0.4	0.4	64.66	80.08	54.52	31.92

**Table 99. Percentage of Rejection for K=5, Normal Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.02	2.92	1.52	47.95
0.05	0.15	0.25	0.35	0.45	54.56	63.40	31.86	49.75
0	0.025	0.075	0.175	0.375	47.44	54.20	25.80	52.40
0	0	0	0	0.5	53.46	62.02	31.24	49.63
0	0	0	0.125	0.25	27.72	31.32	13.68	56.32
0	0	0.125	0.25	0.25	36.24	41.50	18.86	54.55
0	0.05	0.05	0.3	0.3	43.18	49.90	23.12	53.67
0.05	0.2	0.3	0.4	0.5	61.58	71.72	38.00	47.02
0	0	0	0.25	0.5	70.74	81.68	47.30	42.09
0	0	0	0.35	0.35	57.92	67.44	35.00	48.10
0	0	0.25	0.25	0.5	71.16	82.12	47.60	42.04
0	0.125	0.25	0.25	0.25	28.06	31.68	13.62	57.01
0	0.125	0.125	0.125	0.25	21.32	22.18	9.52	57.08
0.125	0.125	0.125	0.25	0.25	15.80	15.00	6.14	59.07
0	0	0	0.1	0.3	32.60	37.20	16.38	55.97
0	0	0	0.2	0.7	88.96	95.26	70.00	26.52
0	0.1	0.1	0.6	0.6	91.98	97.22	76.30	21.52
0	0.1	0.3	0.4	0.4	61.28	71.48	38.18	46.59
0	0.05	0.2	0.4	0.4	64.66	75.34	41.36	45.10

**Table 100. Percentage of Rejection for K=5, Exponential Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.28</b>	4.36	4.30	1.38
0.05	0.15	0.25	0.35	0.45	55.46	56.76	<b>58.80</b>	-3.59
0	0.025	0.075	0.175	0.375	47.90	49.20	<b>51.90</b>	-5.49
0	0	0	0	0.5	48.56	50.70	<b>53.16</b>	-4.85
0	0	0	0.125	0.25	30.54	30.88	<b>31.54</b>	-2.14
0	0	0.125	0.25	0.25	39.74	39.06	<b>41.02</b>	-5.02
0	0.05	0.05	0.3	0.3	45.34	45.58	<b>47.78</b>	-4.83
0.05	0.2	0.3	0.4	0.5	61.62	62.94	<b>65.50</b>	-4.07
0	0	0	0.25	0.5	68.18	71.02	<b>73.56</b>	-3.58
0	0	0	0.35	0.35	56.98	58.74	<b>61.16</b>	-4.12
0	0	0.25	0.25	0.5	68.64	72.08	<b>74.30</b>	-3.08
0	0.125	0.25	0.25	0.25	31.64	30.34	<b>32.16</b>	-6.00
0	0.125	0.125	0.125	0.25	23.92	23.44	<b>24.24</b>	-3.41
0.125	0.125	0.125	0.25	0.25	<b>17.72</b>	16.92	17.58	-3.90
0	0	0	0.1	0.3	34.54	34.42	<b>36.02</b>	-4.65
0	0	0	0.2	0.7	81.42	84.92	<b>86.90</b>	-2.33
0	0.1	0.1	0.6	0.6	86.96	89.02	<b>90.46</b>	-1.62
0	0.1	0.3	0.4	0.4	60.56	62.10	<b>64.88</b>	-4.48
0	0.05	0.2	0.4	0.4	63.72	65.62	<b>68.46</b>	-4.33

**Table 101. Percentage of Rejection for K=5, Exponential Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.28</b>	3.10	3.56	-14.84
0.05	0.15	0.25	0.35	0.45	55.46	52.34	<b>55.48</b>	-6.00
0	0.025	0.075	0.175	0.375	47.90	45.42	<b>48.34</b>	-6.43
0	0	0	0	0.5	48.56	46.32	<b>49.78</b>	-7.47
0	0	0	0.125	0.25	<b>30.54</b>	26.72	28.54	-6.81
0	0	0.125	0.25	0.25	<b>39.74</b>	35.12	38.02	-8.26
0	0.05	0.05	0.3	0.3	<b>45.34</b>	41.34	44.18	-6.87
0.05	0.2	0.3	0.4	0.5	61.62	58.98	<b>62.30</b>	-5.63
0	0	0	0.25	0.5	68.18	67.92	<b>71.26</b>	-4.92
0	0	0	0.35	0.35	56.98	54.32	<b>57.46</b>	-5.78
0	0	0.25	0.25	0.5	68.64	68.22	<b>71.38</b>	-4.63
0	0.125	0.25	0.25	0.25	<b>31.64</b>	26.74	29.22	-9.27
0	0.125	0.125	0.125	0.25	<b>23.92</b>	20.10	21.44	-6.67
0.125	0.125	0.125	0.25	0.25	<b>17.72</b>	13.78	15.02	-9.00
0	0	0	0.1	0.3	<b>34.54</b>	30.56	33.34	-9.10
0	0	0	0.2	0.7	81.42	82.76	<b>85.22</b>	-2.97
0	0.1	0.1	0.6	0.6	86.96	86.88	<b>89.22</b>	-2.69
0	0.1	0.3	0.4	0.4	60.56	58.36	<b>61.74</b>	-5.79
0	0.05	0.2	0.4	0.4	63.72	61.76	<b>65.30</b>	-5.73

**Table 102. Percentage of Rejection for K=5, Exponential Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.28	4.16	3.48	16.35
0.05	0.15	0.25	0.35	0.45	55.46	64.86	53.90	16.90
0	0.025	0.075	0.175	0.375	47.90	56.42	46.30	17.94
0	0	0	0	0.5	48.56	59.14	48.52	17.96
0	0	0	0.125	0.25	30.54	35.10	26.98	23.13
0	0	0.125	0.25	0.25	39.74	46.42	36.08	22.27
0	0.05	0.05	0.3	0.3	45.34	53.42	42.94	19.62
0.05	0.2	0.3	0.4	0.5	61.62	71.50	60.50	15.38
0	0	0	0.25	0.5	68.18	79.40	69.20	12.85
0	0	0	0.35	0.35	56.98	67.34	55.76	17.20
0	0	0.25	0.25	0.5	68.64	79.80	69.56	12.83
0	0.125	0.25	0.25	0.25	31.64	35.56	27.74	21.99
0	0.125	0.125	0.125	0.25	23.92	25.94	20.30	21.74
0.125	0.125	0.125	0.25	0.25	17.72	17.78	14.02	21.15
0	0	0	0.1	0.3	34.54	40.32	31.30	22.37
0	0	0	0.2	0.7	81.42	92.8	84.80	8.62
0	0.1	0.1	0.6	0.6	86.96	95.04	89.00	6.36
0	0.1	0.3	0.4	0.4	60.56	71.08	59.80	15.87
0	0.05	0.2	0.4	0.4	63.72	74.62	63.58	14.79

**Table 103. Percentage of Rejection for K=5, Exponential Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.28	2.94	1.72	41.50
0.05	0.15	0.25	0.35	0.45	55.46	59.28	44.18	25.47
0	0.025	0.075	0.175	0.375	47.90	51.12	36.76	28.09
0	0	0	0	0.5	48.56	54.08	39.22	27.48
0	0	0	0.125	0.25	30.54	29.40	18.82	35.99
0	0	0.125	0.25	0.25	39.74	40.06	26.52	33.80
0	0.05	0.05	0.3	0.3	45.34	47.68	32.94	30.91
0.05	0.2	0.3	0.4	0.5	61.62	65.80	51.64	21.52
0	0	0	0.25	0.5	68.18	74.50	60.70	18.52
0	0	0	0.35	0.35	56.98	61.62	46.30	24.86
0	0	0.25	0.25	0.5	68.64	75.12	61.46	18.18
0	0.125	0.25	0.25	0.25	31.64	30.22	19.28	36.20
0	0.125	0.125	0.125	0.25	23.92	21.32	13.24	37.90
0.125	0.125	0.125	0.25	0.25	17.72	13.62	8.70	36.12
0	0	0	0.1	0.3	34.54	34.42	22.68	34.11
0	0	0	0.2	0.7	81.42	89.84	78.40	12.73
0	0.1	0.1	0.6	0.6	86.96	93.22	83.72	10.19
0	0.1	0.3	0.4	0.4	60.56	65.36	50.70	22.43
0	0.05	0.2	0.4	0.4	63.72	69.10	54.10	21.71

**Table 104. Percentage of Rejection for K=5, Exponential Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.60	4.36	4.64	-6.42
0.05	0.15	0.25	0.35	0.45	79.64	74.62	81.80	-9.62
0	0.025	0.075	0.175	0.375	72.26	67.04	74.92	-11.75
0	0	0	0	0.5	74.06	69.76	77.22	-10.69
0	0	0	0.125	0.25	47.22	42.68	49.58	-16.17
0	0	0.125	0.25	0.25	60.20	54.76	61.96	-13.15
0	0.05	0.05	0.3	0.3	68.12	62.74	70.82	-12.88
0.05	0.2	0.3	0.4	0.5	84.88	81.30	87.42	-7.53
0	0	0	0.25	0.5	90.72	88.50	93.04	-5.13
0	0	0	0.35	0.35	81.86	77.66	84.46	-8.76
0	0	0.25	0.25	0.5	91.02	89.04	93.12	-4.58
0	0.125	0.25	0.25	0.25	47.52	42.94	49.80	-15.98
0	0.125	0.125	0.125	0.25	35.40	31.92	37.06	-16.10
0.125	0.125	0.125	0.25	0.25	24.48	22.10	26.38	-19.37
0	0	0	0.1	0.3	53.72	48.92	55.98	-14.43
0	0	0	0.2	0.7	97.60	96.72	98.44	-1.78
0	0.1	0.1	0.6	0.6	98.78	98.06	99.00	-0.96
0	0.1	0.3	0.4	0.4	84.62	80.92	87.12	-7.66
0	0.05	0.2	0.4	0.4	86.98	83.80	89.64	-6.97

**Table 105. Percentage of Rejection for K=5, Exponential Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.60	3.22	4.16	-29.19
0.05	0.15	0.25	0.35	0.45	79.64	72.44	80.48	-11.10
0	0.025	0.075	0.175	0.375	72.26	64.20	73.36	-14.27
0	0	0	0	0.5	74.06	67.32	75.74	-12.51
0	0	0	0.125	0.25	47.22	39.08	47.60	-21.80
0	0	0.125	0.25	0.25	60.20	51.30	60.14	-17.23
0	0.05	0.05	0.3	0.3	68.12	60.18	69.06	-14.76
0.05	0.2	0.3	0.4	0.5	84.88	78.92	86.42	-9.50
0	0	0	0.25	0.5	90.72	86.58	92.44	-6.77
0	0	0	0.35	0.35	81.86	75.02	83.04	-10.69
0	0	0.25	0.25	0.5	91.02	87.24	92.24	-5.73
0	0.125	0.25	0.25	0.25	47.52	38.78	47.36	-22.12
0	0.125	0.125	0.125	0.25	35.40	27.98	34.88	-24.66
0.125	0.125	0.125	0.25	0.25	24.48	18.72	23.82	-27.24
0	0	0	0.1	0.3	53.72	45.62	54.04	-18.46
0	0	0	0.2	0.7	97.60	96.20	98.20	-2.08
0	0.1	0.1	0.6	0.6	98.78	97.78	98.98	-1.23
0	0.1	0.3	0.4	0.4	84.62	78.04	85.88	-10.05
0	0.05	0.2	0.4	0.4	86.98	81.72	88.56	-8.37

**Table 106. Percentage of Rejection for K=5, Exponential Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.60</b>	4.44	4.00	9.91
0.05	0.15	0.25	0.35	0.45	<b>79.64</b>	<b>81.56</b>	74.98	8.07
0	0.025	0.075	0.175	0.375	72.26	<b>74.74</b>	66.94	10.44
0	0	0	0	0.5	74.06	<b>77.06</b>	69.20	10.20
0	0	0	0.125	0.25	47.22	<b>48.22</b>	41.26	14.43
0	0	0.125	0.25	0.25	60.20	<b>61.58</b>	54.16	12.05
0	0.05	0.05	0.3	0.3	68.12	<b>70.52</b>	63.04	10.61
0.05	0.2	0.3	0.4	0.5	84.88	<b>87.26</b>	80.96	7.22
0	0	0	0.25	0.5	90.72	<b>93.28</b>	88.82	4.78
0	0	0	0.35	0.35	81.86	<b>84.22</b>	77.62	7.84
0	0	0.25	0.25	0.5	91.02	<b>93.08</b>	88.92	4.47
0	0.125	0.25	0.25	0.25	47.52	<b>47.54</b>	41.38	12.96
0	0.125	0.125	0.125	0.25	35.40	<b>35.80</b>	30.72	14.19
0.125	0.125	0.125	0.25	0.25	<b>24.48</b>	24.44	20.36	16.69
0	0	0	0.1	0.3	53.72	<b>54.86</b>	48.38	11.81
0	0	0	0.2	0.7	97.60	<b>98.68</b>	97.40	1.30
0	0.1	0.1	0.6	0.6	98.78	<b>99.34</b>	98.54	0.81
0	0.1	0.3	0.4	0.4	84.62	<b>86.94</b>	80.24	7.71
0	0.05	0.2	0.4	0.4	86.98	<b>89.56</b>	83.88	6.34

**Table 107. Percentage of Rejection for K=5, Exponential Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.60</b>	3.14	2.22	29.30
0.05	0.15	0.25	0.35	0.45	<b>79.64</b>	78.26	69.40	11.32
0	0.025	0.075	0.175	0.375	72.26	70.56	60.88	13.72
0	0	0	0	0.5	74.06	73.60	64.44	12.45
0	0	0	0.125	0.25	47.22	43.28	34.94	19.27
0	0	0.125	0.25	0.25	60.20	56.76	46.92	17.34
0	0.05	0.05	0.3	0.3	68.12	65.86	56.32	14.49
0.05	0.2	0.3	0.4	0.5	84.88	84.00	76.66	8.74
0	0	0	0.25	0.5	90.72	<b>91.02</b>	85.14	6.46
0	0	0	0.35	0.35	81.86	81.10	72.68	10.38
0	0	0.25	0.25	0.5	91.02	<b>91.32</b>	85.64	6.22
0	0.125	0.25	0.25	0.25	47.52	42.88	34.86	18.70
0	0.125	0.125	0.125	0.25	35.40	31.46	25.10	20.22
0.125	0.125	0.125	0.25	0.25	<b>24.48</b>	20.32	15.24	25.00
0	0	0	0.1	0.3	53.72	50.14	41.34	17.55
0	0	0	0.2	0.7	97.60	<b>98.08</b>	96.06	2.06
0	0.1	0.1	0.6	0.6	98.78	<b>99.08</b>	97.62	1.47
0	0.1	0.3	0.4	0.4	84.62	83.82	76.04	9.28
0	0.05	0.2	0.4	0.4	86.98	<b>87.06</b>	79.60	8.57

**Table 108. Percentage of Rejection for K=5, Exponential Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.38	4.66	4.7	-0.86
0.05	0.15	0.25	0.35	0.45	86.64	83.72	88.62	-5.85
0	0.025	0.075	0.175	0.375	80.08	76.72	82.04	-6.93
0	0	0	0	0.5	81.90	78.92	83.96	-6.39
0	0	0	0.125	0.25	54.96	49.86	55.38	-11.07
0	0	0.125	0.25	0.25	68.86	63.12	69.06	-9.41
0	0.05	0.05	0.3	0.3	76.70	71.64	77.70	-8.46
0.05	0.2	0.3	0.4	0.5	91.18	88.92	92.68	-4.23
0	0	0	0.25	0.5	95.34	94.36	96.62	-2.40
0	0	0	0.35	0.35	88.58	86.54	90.34	-4.39
0	0	0.25	0.25	0.5	95.64	94.44	96.58	-2.27
0	0.125	0.25	0.25	0.25	54.64	49.72	55.50	-11.63
0	0.125	0.125	0.125	0.25	40.92	36.90	41.50	-12.47
0.125	0.125	0.125	0.25	0.25	27.82	24.78	27.74	-11.95
0	0	0	0.1	0.3	62.40	57.34	63.46	-10.67
0	0	0	0.2	0.7	99.12	98.92	99.46	-0.55
0	0.1	0.1	0.6	0.6	99.52	99.38	99.72	-0.34
0	0.1	0.3	0.4	0.4	90.76	88.72	92.34	-4.08
0	0.05	0.2	0.4	0.4	92.88	91.48	93.96	-2.71

**Table 109. Percentage of Rejection for K=5, Exponential Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.38	3.26	3.80	-16.56
0.05	0.15	0.25	0.35	0.45	86.64	81.78	86.90	-6.26
0	0.025	0.075	0.175	0.375	80.08	74.20	80.80	-8.89
0	0	0	0	0.5	81.90	76.32	82.40	-7.97
0	0	0	0.125	0.25	54.96	46.50	53.02	-14.02
0	0	0.125	0.25	0.25	68.86	59.94	66.76	-11.38
0	0.05	0.05	0.3	0.3	76.70	69.14	75.72	-9.52
0.05	0.2	0.3	0.4	0.5	91.18	87.42	91.66	-4.85
0	0	0	0.25	0.5	95.34	93.64	96.22	-2.76
0	0	0	0.35	0.35	88.58	84.48	89.20	-5.59
0	0	0.25	0.25	0.5	95.64	93.74	96.12	-2.54
0	0.125	0.25	0.25	0.25	54.64	46.00	52.72	-14.61
0	0.125	0.125	0.125	0.25	40.92	33.04	39.02	-18.10
0.125	0.125	0.125	0.25	0.25	27.82	21.60	25.38	-17.50
0	0	0	0.1	0.3	62.40	53.70	60.86	-13.33
0	0	0	0.2	0.7	99.12	98.80	99.46	-0.67
0	0.1	0.1	0.6	0.6	99.52	99.40	99.68	-0.28
0	0.1	0.3	0.4	0.4	90.76	86.86	91.32	-5.13
0	0.05	0.2	0.4	0.4	92.88	89.68	93.36	-4.10



**Table 110. Percentage of Rejection for K=5, Exponential Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.38</b>	4.04	3.14	22.28
0.05	0.15	0.25	0.35	0.45	86.64	<b>89.64</b>	79.28	11.56
0	0.025	0.075	0.175	0.375	80.08	<b>83.20</b>	70.78	14.93
0	0	0	0	0.5	81.90	<b>85.72</b>	73.94	13.74
0	0	0	0.125	0.25	54.96	<b>56.90</b>	43.66	23.27
0	0	0.125	0.25	0.25	68.86	<b>70.60</b>	56.80	19.55
0	0.05	0.05	0.3	0.3	76.70	<b>79.30</b>	66.26	16.44
0.05	0.2	0.3	0.4	0.5	91.18	<b>93.86</b>	85.16	9.27
0	0	0	0.25	0.5	95.34	<b>97.02</b>	92.14	5.03
0	0	0	0.35	0.35	88.58	<b>91.58</b>	81.64	10.85
0	0	0.25	0.25	0.5	95.64	<b>97.08</b>	92.24	4.99
0	0.125	0.25	0.25	0.25	54.64	<b>55.76</b>	42.96	22.96
0	0.125	0.125	0.125	0.25	40.92	<b>41.40</b>	31.56	23.77
0.125	0.125	0.125	0.25	0.25	<b>27.82</b>	27.72	21.04	24.10
0	0	0	0.1	0.3	62.40	<b>64.54</b>	50.86	21.20
0	0	0	0.2	0.7	99.12	<b>99.72</b>	98.34	1.38
0	0.1	0.1	0.6	0.6	99.52	<b>99.94</b>	99.02	0.92
0	0.1	0.3	0.4	0.4	90.76	<b>93.40</b>	84.58	9.44
0	0.05	0.2	0.4	0.4	92.88	<b>95.08</b>	87.94	7.51

**Table 111. Percentage of Rejection for K=5, Exponential Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.38</b>	2.98	1.76	40.94
0.05	0.15	0.25	0.35	0.45	86.64	<b>87.04</b>	73.38	15.69
0	0.025	0.075	0.175	0.375	80.08	<b>80.12</b>	64.24	19.82
0	0	0	0	0.5	81.90	<b>82.98</b>	67.60	18.53
0	0	0	0.125	0.25	54.96	51.76	35.28	31.84
0	0	0.125	0.25	0.25	68.86	65.90	49.18	25.37
0	0.05	0.05	0.3	0.3	76.70	75.20	58.90	21.68
0.05	0.2	0.3	0.4	0.5	91.18	<b>91.98</b>	80.26	12.74
0	0	0	0.25	0.5	95.34	<b>96.18</b>	89.06	7.40
0	0	0	0.35	0.35	88.58	<b>89.04</b>	76.24	14.38
0	0	0.25	0.25	0.5	95.64	<b>96.32</b>	89.22	7.37
0	0.125	0.25	0.25	0.25	54.64	50.76	34.90	31.25
0	0.125	0.125	0.125	0.25	40.92	36.32	23.84	34.36
0.125	0.125	0.125	0.25	0.25	<b>27.82</b>	22.82	14.62	35.93
0	0	0	0.1	0.3	62.40	60.04	42.82	28.68
0	0	0	0.2	0.7	99.12	<b>99.52</b>	97.42	2.11
0	0.1	0.1	0.6	0.6	99.52	<b>99.78</b>	98.50	1.28
0	0.1	0.3	0.4	0.4	90.76	<b>91.48</b>	79.80	12.77
0	0.05	0.2	0.4	0.4	92.88	<b>93.82</b>	83.64	10.85

**Table 112. Percentage of Rejection for K=5, Exponential Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.38</b>	3.44	2.88	16.28
0.05	0.15	0.25	0.35	0.45	86.64	<b>94.48</b>	71.54	24.28
0	0.025	0.075	0.175	0.375	80.08	<b>89.56</b>	63.20	29.43
0	0	0	0	0.5	81.90	<b>92.10</b>	67.92	26.25
0	0	0	0.125	0.25	54.96	<b>65.06</b>	37.00	43.13
0	0	0.125	0.25	0.25	68.86	<b>78.76</b>	49.48	37.18
0	0.05	0.05	0.3	0.3	76.70	<b>86.66</b>	58.62	32.36
0.05	0.2	0.3	0.4	0.5	91.18	<b>96.78</b>	78.56	18.83
0	0	0	0.25	0.5	95.34	<b>98.98</b>	87.08	12.02
0	0	0	0.35	0.35	88.58	<b>95.72</b>	74.78	21.88
0	0	0.25	0.25	0.5	95.64	<b>98.92</b>	87.28	11.77
0	0.125	0.25	0.25	0.25	54.64	<b>64.60</b>	37.44	42.04
0	0.125	0.125	0.125	0.25	40.92	<b>48.66</b>	26.56	45.42
0.125	0.125	0.125	0.25	0.25	27.82	<b>32.46</b>	16.62	48.80
0	0	0	0.1	0.3	62.40	<b>73.66</b>	43.84	40.48
0	0	0	0.2	0.7	99.12	<b>99.94</b>	96.72	3.22
0	0.1	0.1	0.6	0.6	99.52	<b>99.96</b>	98.02	1.94
0	0.1	0.3	0.4	0.4	90.76	<b>96.70</b>	78.02	19.32
0	0.05	0.2	0.4	0.4	92.88	<b>97.78</b>	81.42	16.73

**Table 113. Percentage of Rejection for K=5, Exponential Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.38</b>	2.48	0.94	62.10
0.05	0.15	0.25	0.35	0.45	86.64	<b>92.04</b>	57.60	37.42
0	0.025	0.075	0.175	0.375	80.08	<b>86.08</b>	47.90	44.35
0	0	0	0	0.5	81.90	<b>88.84</b>	53.54	39.73
0	0	0	0.125	0.25	54.96	<b>58.64</b>	22.88	60.98
0	0	0.125	0.25	0.25	68.86	<b>73.50</b>	34.08	53.63
0	0.05	0.05	0.3	0.3	76.70	<b>82.18</b>	42.90	47.80
0.05	0.2	0.3	0.4	0.5	91.18	<b>95.14</b>	65.88	30.75
0	0	0	0.25	0.5	95.34	<b>98.20</b>	76.88	21.71
0	0	0	0.35	0.35	88.58	<b>93.02</b>	60.88	34.55
0	0	0.25	0.25	0.5	95.64	<b>98.06</b>	77.04	21.44
0	0.125	0.25	0.25	0.25	54.64	<b>58.02</b>	23.32	59.81
0	0.125	0.125	0.125	0.25	40.92	<b>42.24</b>	14.36	66.00
0.125	0.125	0.125	0.25	0.25	27.82	<b>26.48</b>	8.20	69.03
0	0	0	0.1	0.3	62.40	<b>67.00</b>	28.68	57.19
0	0	0	0.2	0.7	99.12	<b>99.84</b>	92.50	7.35
0	0.1	0.1	0.6	0.6	99.52	<b>99.92</b>	95.42	4.50
0	0.1	0.3	0.4	0.4	90.76	<b>94.88</b>	65.46	31.01
0	0.05	0.2	0.4	0.4	92.88	<b>96.42</b>	69.90	27.50

**Table 114. Percentage of Rejection for K=5, t-Distribution, Block=16, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.12</b>	4.56	4.52	0.88
0.05	0.15	0.25	0.35	0.45	24.52	25.28	<b>25.68</b>	-1.58
0	0.025	0.075	0.175	0.375	21.64	22.26	<b>22.78</b>	-2.34
0	0	0	0	0.5	23.78	24.98	<b>25.50</b>	-2.08
0	0	0	0.125	0.25	14.98	15.24	<b>15.54</b>	-1.97
0	0	0.125	0.25	0.25	17.68	18.64	<b>19.02</b>	-2.04
0	0.05	0.05	0.3	0.3	20.30	20.98	<b>21.40</b>	-2.00
0.05	0.2	0.3	0.4	0.5	27.52	28.22	<b>28.92</b>	-2.48
0	0	0	0.25	0.5	31.46	33.08	<b>34.46</b>	-4.17
0	0	0	0.35	0.35	25.70	27.08	<b>27.52</b>	-1.62
0	0	0.25	0.25	0.5	32.14	33.26	<b>34.60</b>	-4.03
0	0.125	0.25	0.25	0.25	14.94	15.14	<b>15.86</b>	-4.76
0	0.125	0.125	0.125	0.25	12.20	12.40	<b>12.62</b>	-1.77
0.125	0.125	0.125	0.25	0.25	<b>10.06</b>	9.88	10.00	-1.21
0	0	0	0.1	0.3	16.88	16.96	<b>17.32</b>	-2.12
0	0	0	0.2	0.7	42.44	45.28	<b>47.36</b>	-4.59
0	0.1	0.1	0.6	0.6	46.90	50.14	<b>51.88</b>	-3.47
0	0.1	0.3	0.4	0.4	27.16	28.38	<b>29.22</b>	-2.96
0	0.05	0.2	0.4	0.4	28.78	29.92	<b>30.98</b>	-3.54

**Table 115. Percentage of Rejection for K=5, t-Distribution, Block=16, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.12</b>	3.78	3.90	-3.17
0.05	0.15	0.25	0.35	0.45	24.52	22.64	24.06	-6.27
0	0.025	0.075	0.175	0.375	21.64	20.08	21.06	-4.88
0	0	0	0	0.5	23.78	22.78	23.78	-4.39
0	0	0	0.125	0.25	14.98	13.16	13.86	-5.32
0	0	0.125	0.25	0.25	17.68	16.36	17.02	-4.03
0	0.05	0.05	0.3	0.3	20.30	18.64	19.64	-5.36
0.05	0.2	0.3	0.4	0.5	27.52	25.46	27.08	-6.36
0	0	0	0.25	0.5	31.46	30.48	32.36	-6.17
0	0	0	0.35	0.35	25.70	24.30	25.40	-4.53
0	0	0.25	0.25	0.5	32.14	31.18	32.72	-4.94
0	0.125	0.25	0.25	0.25	14.94	13.40	14.20	-5.97
0	0.125	0.125	0.125	0.25	12.20	10.76	11.42	-6.13
0.125	0.125	0.125	0.25	0.25	<b>10.06</b>	8.48	8.96	-5.66
0	0	0	0.1	0.3	16.88	14.88	15.42	-3.63
0	0	0	0.2	0.7	42.44	42.24	<b>44.54</b>	-5.45
0	0.1	0.1	0.6	0.6	46.90	46.42	<b>49.20</b>	-5.99
0	0.1	0.3	0.4	0.4	27.16	25.84	<b>27.16</b>	-5.11
0	0.05	0.2	0.4	0.4	28.78	27.42	<b>28.78</b>	-4.96

**Table 116. Percentage of Rejection for K=5, t-Distribution, Block=16, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.12</b>	4.46	4.08	8.52
0.05	0.15	0.25	0.35	0.45	24.52	<b>29.44</b>	24.72	16.03
0	0.025	0.075	0.175	0.375	21.64	<b>25.74</b>	21.32	17.17
0	0	0	0	0.5	23.78	<b>28.96</b>	24.10	16.78
0	0	0	0.125	0.25	14.98	<b>16.60</b>	14.04	15.42
0	0	0.125	0.25	0.25	17.68	<b>20.42</b>	17.16	15.96
0	0.05	0.05	0.3	0.3	20.30	<b>23.78</b>	19.72	17.07
0.05	0.2	0.3	0.4	0.5	27.52	<b>33.2</b>	28.10	15.36
0	0	0	0.25	0.5	31.46	<b>39.22</b>	33.34	14.99
0	0	0	0.35	0.35	25.70	<b>31.42</b>	26.20	16.61
0	0	0.25	0.25	0.5	32.14	<b>39.58</b>	33.66	14.96
0	0.125	0.25	0.25	0.25	14.94	<b>16.72</b>	13.62	18.54
0	0.125	0.125	0.125	0.25	12.20	<b>13.04</b>	11.08	15.03
0.125	0.125	0.125	0.25	0.25	10.06	<b>10.14</b>	8.98	11.44
0	0	0	0.1	0.3	16.88	<b>18.92</b>	15.82	16.38
0	0	0	0.2	0.7	42.44	<b>53.66</b>	45.98	14.31
0	0.1	0.1	0.6	0.6	46.90	<b>59.02</b>	50.24	14.88
0	0.1	0.3	0.4	0.4	27.16	<b>33.28</b>	28.08	15.63
0	0.05	0.2	0.4	0.4	28.78	<b>35.60</b>	29.86	16.12

**Table 117. Percentage of Rejection for K=5, t-Distribution, Block=16, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.12</b>	3.70	2.98	19.46
0.05	0.15	0.25	0.35	0.45	24.52	<b>25.80</b>	19.36	24.96
0	0.025	0.075	0.175	0.375	21.64	<b>22.40</b>	16.42	26.70
0	0	0	0	0.5	23.78	<b>25.20</b>	18.68	25.87
0	0	0	0.125	0.25	<b>14.98</b>	14.00	9.84	29.71
0	0	0.125	0.25	0.25	<b>17.68</b>	17.58	12.60	28.33
0	0.05	0.05	0.3	0.3	20.30	<b>20.34</b>	15.34	24.58
0.05	0.2	0.3	0.4	0.5	27.52	<b>29.4</b>	22.06	24.97
0	0	0	0.25	0.5	31.46	<b>35.00</b>	26.76	23.54
0	0	0	0.35	0.35	25.70	<b>27.44</b>	20.50	25.29
0	0	0.25	0.25	0.5	32.14	<b>34.88</b>	26.68	23.51
0	0.125	0.25	0.25	0.25	<b>14.94</b>	13.78	9.74	29.32
0	0.125	0.125	0.125	0.25	<b>12.20</b>	10.70	7.56	29.35
0.125	0.125	0.125	0.25	0.25	<b>10.06</b>	8.46	6.12	27.66
0	0	0	0.1	0.3	<b>16.88</b>	16.10	11.48	28.70
0	0	0	0.2	0.7	42.44	<b>49.96</b>	38.88	22.18
0	0.1	0.1	0.6	0.6	46.90	<b>54.28</b>	42.76	21.22
0	0.1	0.3	0.4	0.4	27.16	<b>29.30</b>	22.10	24.57
0	0.05	0.2	0.4	0.4	28.78	<b>31.24</b>	23.68	24.20

**Table 118. Percentage of Rejection for K=5, t-Distribution, Block=32, n=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.38	4.86	5.16	-6.17
0.05	0.15	0.25	0.35	0.45	37.48	34.70	39.96	-15.16
0	0.025	0.075	0.175	0.375	32.84	30.86	35.36	-14.58
0	0	0	0	0.5	37.28	34.44	39.98	-16.09
0	0	0	0.125	0.25	21.02	19.96	22.84	-14.43
0	0	0.125	0.25	0.25	25.72	24.72	28.18	-14.00
0	0.05	0.05	0.3	0.3	30.58	28.68	32.88	-14.64
0.05	0.2	0.3	0.4	0.5	42.60	39.62	45.26	-14.24
0	0	0	0.25	0.5	49.78	47.18	53.14	-12.63
0	0	0	0.35	0.35	40.02	37.26	42.70	-14.60
0	0	0.25	0.25	0.5	50.48	47.38	53.56	-13.04
0	0.125	0.25	0.25	0.25	21.28	19.92	22.44	-12.65
0	0.125	0.125	0.125	0.25	16.68	15.94	17.84	-11.92
0.125	0.125	0.125	0.25	0.25	12.92	12.36	13.48	-9.06
0	0	0	0.1	0.3	24.06	22.80	26.04	-14.21
0	0	0	0.2	0.7	65.20	63.44	70.14	-10.56
0	0.1	0.1	0.6	0.6	70.32	68.44	75.30	-10.02
0	0.1	0.3	0.4	0.4	42.34	39.80	45.32	-13.87
0	0.05	0.2	0.4	0.4	44.66	42.36	48.24	-13.88

**Table 119. Percentage of Rejection for K=5, t-Distribution, Block=32, n=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.38	4.48	4.78	-6.70
0.05	0.15	0.25	0.35	0.45	37.48	32.64	38.96	-19.36
0	0.025	0.075	0.175	0.375	32.84	28.42	34.44	-21.18
0	0	0	0	0.5	37.28	32.06	38.86	-21.21
0	0	0	0.125	0.25	21.02	17.88	21.56	-20.58
0	0	0.125	0.25	0.25	25.72	22.34	26.40	-18.17
0	0.05	0.05	0.3	0.3	30.58	26.22	31.60	-20.52
0.05	0.2	0.3	0.4	0.5	42.60	36.84	43.94	-19.27
0	0	0	0.25	0.5	49.78	44.46	51.86	-16.64
0	0	0	0.35	0.35	40.02	34.9	41.34	-18.45
0	0	0.25	0.25	0.5	50.48	45.00	52.28	-16.18
0	0.125	0.25	0.25	0.25	21.28	17.78	21.38	-20.25
0	0.125	0.125	0.125	0.25	16.68	14.24	17.08	-19.94
0.125	0.125	0.125	0.25	0.25	12.92	10.96	12.84	-17.15
0	0	0	0.1	0.3	24.06	20.52	24.72	-20.47
0	0	0	0.2	0.7	65.20	61.200	68.48	-11.90
0	0.1	0.1	0.6	0.6	70.32	66.24	74.14	-11.93
0	0.1	0.3	0.4	0.4	42.34	37.02	44.12	-19.18
0	0.05	0.2	0.4	0.4	44.66	39.74	46.64	-17.36

**Table 120. Percentage of Rejection for K=5, t-Distribution, Block=32, n=8, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.38</b>	4.68	4.28	8.55
0.05	0.15	0.25	0.35	0.45	37.48	<b>39.62</b>	35.40	10.65
0	0.025	0.075	0.175	0.375	32.84	<b>34.88</b>	30.84	11.58
0	0	0	0	0.5	37.28	<b>38.80</b>	34.60	10.82
0	0	0	0.125	0.25	21.02	<b>22.34</b>	19.68	11.91
0	0	0.125	0.25	0.25	25.72	<b>27.96</b>	24.40	12.73
0	0.05	0.05	0.3	0.3	30.58	<b>32.32</b>	28.80	10.89
0.05	0.2	0.3	0.4	0.5	42.60	<b>44.52</b>	39.92	10.33
0	0	0	0.25	0.5	49.78	<b>52.78</b>	46.64	11.63
0	0	0	0.35	0.35	40.02	<b>42.24</b>	37.32	11.65
0	0	0.25	0.25	0.5	50.48	<b>53.00</b>	47.14	11.06
0	0.125	0.25	0.25	0.25	21.28	<b>22.40</b>	19.32	13.75
0	0.125	0.125	0.125	0.25	16.68	<b>17.02</b>	15.16	10.93
0.125	0.125	0.125	0.25	0.25	12.92	<b>13.10</b>	11.52	12.06
0	0	0	0.1	0.3	24.06	<b>25.52</b>	22.58	11.52
0	0	0	0.2	0.7	65.20	<b>70.40</b>	63.68	9.55
0	0.1	0.1	0.6	0.6	70.32	<b>76.10</b>	69.50	8.67
0	0.1	0.3	0.4	0.4	42.34	<b>44.76</b>	39.40	11.97
0	0.05	0.2	0.4	0.4	44.66	<b>47.32</b>	41.98	11.28

**Table 121. Percentage of Rejection for K=5, t-Distribution, Block=32, n=8, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>5.38</b>	3.76	3.48	7.45
0.05	0.15	0.25	0.35	0.45	37.48	36.28	30.86	14.94
0	0.025	0.075	0.175	0.375	32.84	31.64	26.28	16.94
0	0	0	0	0.5	37.28	35.48	30.02	15.39
0	0	0	0.125	0.25	21.02	19.20	15.52	19.17
0	0	0.125	0.25	0.25	25.72	25.14	19.92	20.76
0	0.05	0.05	0.3	0.3	30.58	29.14	24.20	16.95
0.05	0.2	0.3	0.4	0.5	42.60	40.80	35.10	13.97
0	0	0	0.25	0.5	49.78	49.20	41.90	14.84
0	0	0	0.35	0.35	40.02	39.04	32.54	16.65
0	0	0.25	0.25	0.5	50.48	48.82	42.04	13.89
0	0.125	0.25	0.25	0.25	21.28	18.94	15.34	19.01
0	0.125	0.125	0.125	0.25	16.68	14.76	11.94	19.11
0.125	0.125	0.125	0.25	0.25	12.92	10.82	8.84	18.30
0	0	0	0.1	0.3	24.06	22.44	18.18	18.98
0	0	0	0.2	0.7	65.20	67.34	59.38	11.82
0	0.1	0.1	0.6	0.6	70.32	72.90	65.24	10.51
0	0.1	0.3	0.4	0.4	42.34	41.20	34.82	15.49
0	0.05	0.2	0.4	0.4	44.66	44.14	37.18	15.77

**Table 122. Percentage of Rejection for K=5, t-Distribution, Block=40, n=5, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.92</b>	4.86	4.90	-0.82
0.05	0.15	0.25	0.35	0.45	42.40	40.18	<b>44.36</b>	-10.40
0	0.025	0.075	0.175	0.375	36.90	35.28	<b>39.18</b>	-11.05
0	0	0	0	0.5	41.38	40.14	<b>43.90</b>	-9.37
0	0	0	0.125	0.25	23.08	22.12	<b>24.72</b>	-11.75
0	0	0.125	0.25	0.25	29.18	27.90	<b>30.72</b>	-10.11
0	0.05	0.05	0.3	0.3	33.68	32.68	<b>36.06</b>	-10.34
0.05	0.2	0.3	0.4	0.5	48.28	45.64	<b>50.32</b>	-10.25
0	0	0	0.25	0.5	56.14	53.90	<b>59.12</b>	-9.68
0	0	0	0.35	0.35	45.66	43.10	<b>47.34</b>	-9.84
0	0	0.25	0.25	0.5	56.74	54.08	<b>59.26</b>	-9.58
0	0.125	0.25	0.25	0.25	22.58	22.26	<b>24.22</b>	-8.81
0	0.125	0.125	0.125	0.25	17.70	17.06	<b>18.64</b>	-9.26
0.125	0.125	0.125	0.25	0.25	13.54	12.54	<b>13.70</b>	-9.25
0	0	0	0.1	0.3	26.32	25.54	<b>28.26</b>	-10.65
0	0	0	0.2	0.7	73.92	72.14	<b>76.88</b>	-6.57
0	0.1	0.1	0.6	0.6	78.76	77.04	<b>81.90</b>	-6.31
0	0.1	0.3	0.4	0.4	48.74	45.80	<b>50.48</b>	-10.22
0	0.05	0.2	0.4	0.4	51.42	48.82	<b>53.30</b>	-9.18

**Table 123. Percentage of Rejection for K=5, t-Distribution, Block=40, n=5, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.92</b>	4.06	4.46	-9.85
0.05	0.15	0.25	0.35	0.45	42.40	37.90	<b>42.60</b>	-12.40
0	0.025	0.075	0.175	0.375	36.90	32.56	<b>37.14</b>	-14.07
0	0	0	0	0.5	41.38	37.10	<b>42.10</b>	-13.48
0	0	0	0.125	0.25	<b>23.08</b>	20.08	22.78	-13.45
0	0	0.125	0.25	0.25	<b>29.18</b>	25.58	29.16	-14.00
0	0.05	0.05	0.3	0.3	33.68	30.32	<b>33.82</b>	-11.54
0.05	0.2	0.3	0.4	0.5	48.28	43.02	<b>48.42</b>	-12.55
0	0	0	0.25	0.5	56.14	51.24	<b>57.24</b>	-11.71
0	0	0	0.35	0.35	45.66	40.28	<b>45.84</b>	-13.80
0	0	0.25	0.25	0.5	56.74	51.60	<b>57.12</b>	-10.70
0	0.125	0.25	0.25	0.25	22.58	20.00	<b>22.70</b>	-13.50
0	0.125	0.125	0.125	0.25	17.70	15.24	<b>17.64</b>	-15.75
0.125	0.125	0.125	0.25	0.25	<b>13.54</b>	11.44	12.84	-12.24
0	0	0	0.1	0.3	26.32	23.24	<b>26.44</b>	-13.77
0	0	0	0.2	0.7	73.92	69.82	<b>75.04</b>	-7.48
0	0.1	0.1	0.6	0.6	78.76	75.54	<b>80.84</b>	-7.02
0	0.1	0.3	0.4	0.4	<b>48.74</b>	42.82	48.22	-12.61
0	0.05	0.2	0.4	0.4	51.42	45.9	<b>51.54</b>	-12.29

**Table 124. Percentage of Rejection for K=5, t-Distribution, Block=40, n=10, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.92</b>	4.9	4.12	15.92
0.05	0.15	0.25	0.35	0.45	42.40	<b>45.56</b>	36.88	19.05
0	0.025	0.075	0.175	0.375	36.90	<b>39.58</b>	31.52	20.36
0	0	0	0	0.5	41.38	<b>44.78</b>	35.92	19.79
0	0	0	0.125	0.25	23.08	<b>24.54</b>	19.80	19.32
0	0	0.125	0.25	0.25	29.18	<b>30.84</b>	24.66	20.04
0	0.05	0.05	0.3	0.3	33.68	<b>36.82</b>	29.50	19.88
0.05	0.2	0.3	0.4	0.5	48.28	<b>52.24</b>	42.16	19.30
0	0	0	0.25	0.5	56.14	<b>61.66</b>	50.92	17.42
0	0	0	0.35	0.35	45.66	<b>48.96</b>	39.18	19.98
0	0	0.25	0.25	0.5	56.74	<b>61.44</b>	50.60	17.64
0	0.125	0.25	0.25	0.25	22.58	<b>24.00</b>	19.76	17.67
0	0.125	0.125	0.125	0.25	17.70	<b>18.46</b>	15.18	17.77
0.125	0.125	0.125	0.25	0.25	13.54	<b>13.92</b>	11.44	17.82
0	0	0	0.1	0.3	26.32	<b>27.96</b>	22.68	18.88
0	0	0	0.2	0.7	73.92	<b>79.72</b>	68.96	13.50
0	0.1	0.1	0.6	0.6	78.76	<b>84.22</b>	73.90	12.25
0	0.1	0.3	0.4	0.4	48.74	<b>52.08</b>	42.26	18.86
0	0.05	0.2	0.4	0.4	51.42	<b>55.34</b>	44.80	19.05

**Table 125. Percentage of Rejection for K=5, t-Distribution, Block=40, n=10, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.92</b>	3.70	2.78	24.86
0.05	0.15	0.25	0.35	0.45	42.40	42.10	31.42	25.37
0	0.025	0.075	0.175	0.375	36.90	36.12	26.56	26.47
0	0	0	0	0.5	41.38	41.14	30.90	24.89
0	0	0	0.125	0.25	23.08	20.86	15.56	25.41
0	0	0.125	0.25	0.25	29.18	27.36	20.12	26.46
0	0.05	0.05	0.3	0.3	33.68	33.66	24.34	27.69
0.05	0.2	0.3	0.4	0.5	48.28	<b>48.40</b>	36.40	24.79
0	0	0	0.25	0.5	56.14	<b>57.56</b>	44.46	22.76
0	0	0	0.35	0.35	45.66	<b>45.74</b>	33.66	26.41
0	0	0.25	0.25	0.5	56.74	<b>57.62</b>	45.04	21.83
0	0.125	0.25	0.25	0.25	22.58	20.98	15.32	26.98
0	0.125	0.125	0.125	0.25	17.70	15.84	11.34	28.41
0.125	0.125	0.125	0.25	0.25	13.54	11.54	8.48	26.52
0	0	0	0.1	0.3	26.32	24.74	18.44	25.46
0	0	0	0.2	0.7	73.92	<b>76.82</b>	63.68	17.10
0	0.1	0.1	0.6	0.6	78.76	<b>81.94</b>	69.06	15.72
0	0.1	0.3	0.4	0.4	48.74	48.46	36.44	24.80
0	0.05	0.2	0.4	0.4	51.42	<b>51.96</b>	39.14	24.67



**Table 126. Percentage of Rejection for K=5, t-Distribution, Block=40, n=20, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.92</b>	4.90	4.10	16.33
0.05	0.15	0.25	0.35	0.45	42.40	<b>55.06</b>	34.50	37.34
0	0.025	0.075	0.175	0.375	36.90	<b>48.46</b>	29.60	38.92
0	0	0	0	0.5	41.38	<b>54.24</b>	33.66	37.94
0	0	0	0.125	0.25	23.08	<b>28.34</b>	18.70	34.02
0	0	0.125	0.25	0.25	29.18	<b>37.40</b>	22.92	38.72
0	0.05	0.05	0.3	0.3	33.68	<b>44.30</b>	27.12	38.78
0.05	0.2	0.3	0.4	0.5	48.28	<b>61.94</b>	40.40	34.78
0	0	0	0.25	0.5	56.14	<b>71.52</b>	48.04	32.83
0	0	0	0.35	0.35	45.66	<b>58.42</b>	37.20	36.32
0	0	0.25	0.25	0.5	56.74	<b>71.80</b>	48.56	32.37
0	0.125	0.25	0.25	0.25	22.58	<b>28.68</b>	18.66	34.94
0	0.125	0.125	0.125	0.25	17.70	<b>21.04</b>	14.28	32.13
0.125	0.125	0.125	0.25	0.25	13.54	<b>15.68</b>	10.88	30.61
0	0	0	0.1	0.3	26.32	<b>33.90</b>	21.12	37.70
0	0	0	0.2	0.7	73.92	<b>88.24</b>	64.98	26.36
0	0.1	0.1	0.6	0.6	78.76	<b>91.76</b>	70.64	23.02
0	0.1	0.3	0.4	0.4	48.74	<b>61.60</b>	40.16	34.81
0	0.05	0.2	0.4	0.4	51.42	<b>65.14</b>	43.06	33.90

**Table 127. Percentage of Rejection for K=5, t-Distribution, Block=40, n=20, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	<b>4.92</b>	3.90	2.40	38.46
0.05	0.15	0.25	0.35	0.45	42.40	<b>50.48</b>	25.30	49.88
0	0.025	0.075	0.175	0.375	36.90	<b>42.92</b>	21.00	51.07
0	0	0	0	0.5	41.38	<b>49.24</b>	24.48	50.28
0	0	0	0.125	0.25	23.08	<b>24.64</b>	12.56	49.03
0	0	0.125	0.25	0.25	29.18	<b>32.74</b>	15.74	51.92
0	0.05	0.05	0.3	0.3	33.68	<b>39.80</b>	19.36	51.36
0.05	0.2	0.3	0.4	0.5	48.28	<b>56.94</b>	30.12	47.10
0	0	0	0.25	0.5	56.14	<b>66.48</b>	37.22	44.01
0	0	0	0.35	0.35	45.66	<b>53.24</b>	27.46	48.42
0	0	0.25	0.25	0.5	56.74	<b>67.02</b>	37.44	44.14
0	0.125	0.25	0.25	0.25	22.58	<b>24.52</b>	12.46	49.18
0	0.125	0.125	0.125	0.25	17.70	<b>18.10</b>	9.64	46.74
0.125	0.125	0.125	0.25	0.25	13.54	<b>12.56</b>	7.10	43.47
0	0	0	0.1	0.3	26.32	<b>29.38</b>	14.64	50.17
0	0	0	0.2	0.7	73.92	<b>85.06</b>	54.66	35.74
0	0.1	0.1	0.6	0.6	78.76	<b>89.38</b>	60.26	32.58
0	0.1	0.3	0.4	0.4	48.74	<b>56.80</b>	30.12	46.97
0	0.05	0.2	0.4	0.4	51.42	<b>60.04</b>	32.62	45.67

## 4.2. Unequal Block Numbers for JT Test

Table 127-180 give the results for unequal sample sizes analyzed in the completely randomized design portion. Location parameter arrangements, rejection percentage of Page's test, rejection percentages of the two tests for the mixed design, and the power percentage difference (D) are given in each of the tables for the various distributions, sample sizes and block variances.

For each treatment combination, the numbers of blocks for randomized complete block design portion are 16, 32 and 40, respectively. The corresponding sample sizes that for the portion analyzed as completely randomized design are  $1/6$ ,  $1/3$ ,  $5/16$ ,  $5/32$ ,  $3/10$  and  $3/20$  of the sample size of the randomized complete block portion.

Tables 127-132 give the results for  $K=3$ , when the underlying distributions are normal. Tables 133-138 give the results for  $K=3$ , when the underlying distributions are exponential. Tables 139-144 give the results for  $K=3$ , and underlying t-distributions with three degrees of freedom.

Tables 145-150 give the results for  $K=4$ , when the underlying distributions are normal. Tables 151-156 give the results for  $K=4$ , when the underlying distributions are exponential. Tables 157-162 give the results for  $K=4$ , and underlying t-distributions with three degrees of freedom.

Tables 163-168 give the results for  $K=5$ , when the underlying distributions are normal. Tables 169-174 give the results for  $K=5$ , when the underlying distributions are exponential. Tables 175-180 give the results for  $K=4$ , and underlying t-distributions with three degrees of freedom.

**Table 128. Percentage of Rejection for K=3, Normal Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.52	<b>5.32</b>	4.94	7.14
0	0	0.5	30.84	<b>34.50</b>	27.50	20.29
0	0.5	0.5	30.56	<b>39.94</b>	33.54	16.02
0.05	0.25	0.5	26.96	<b>32.12</b>	26.94	16.13
0	0.3	0.5	31.24	<b>38.40</b>	32.04	16.56
0	0	1	73.74	<b>78.60</b>	66.36	15.57
0	1	1	73.92	<b>86.48</b>	78.68	9.02
0	0.5	1	75.36	<b>83.54</b>	74.18	11.20
0.5	0.5	1	30.84	<b>34.50</b>	27.50	20.29
0.5	1	1	30.56	<b>39.94</b>	33.54	16.02
0.1	0.5	1	67.32	<b>75.32</b>	64.72	14.07
0.1	0.3	0.7	40.22	<b>46.06</b>	39.14	15.02
0.2	0.5	0.8	40.04	<b>47.24</b>	40.30	14.69
0	0.25	0.5	31.28	<b>37.70</b>	31.34	16.87
0	0.1	0.8	57.44	<b>64.04</b>	52.78	17.58

**Table 129. Percentage of Rejection for K=3, Normal Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.52	5.56	5.72	-2.88
0	0	0.5	30.84	<b>32.34</b>	26.00	19.60
0	0.5	0.5	30.56	<b>36.50</b>	30.52	16.38
0.05	0.25	0.5	26.96	<b>30.78</b>	24.76	19.56
0	0.3	0.5	31.24	<b>35.16</b>	28.86	17.92
0	0	1	<b>73.74</b>	73.36	59.30	19.17
0	1	1	73.92	<b>79.26</b>	68.38	13.73
0	0.5	1	75.36	<b>77.56</b>	64.88	16.35
0.5	0.5	1	30.84	<b>32.34</b>	26.00	19.60
0.5	1	1	30.56	<b>36.50</b>	30.52	16.38
0.1	0.5	1	67.32	<b>69.22</b>	57.04	17.60
0.1	0.3	0.7	40.22	<b>42.56</b>	35.14	17.43
0.2	0.5	0.8	40.04	<b>43.34</b>	36.08	16.75
0	0.25	0.5	31.28	<b>35.14</b>	28.52	18.84
0	0.1	0.8	57.44	<b>58.54</b>	46.86	19.95

**Table 130. Percentage of Rejection for K=3, Normal Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.52	<b>5.30</b>	4.94	6.79
0	0	0.5	<b>49.84</b>	48.94	43.90	10.30
0	0.5	0.5	49.34	<b>54.80</b>	50.18	8.43
0.05	0.25	0.5	43.98	<b>45.14</b>	41.00	9.17
0	0.3	0.5	50.46	<b>52.72</b>	48.20	8.57
0	0	1	<b>94.76</b>	93.08	89.10	4.28
0	1	1	94.46	<b>95.96</b>	94.00	2.04
0	0.5	1	<b>95.24</b>	94.96	92.48	2.61
0.5	0.5	1	<b>49.84</b>	48.94	43.90	10.30
0.5	1	1	49.34	<b>54.80</b>	50.18	8.43
0.1	0.5	1	<b>91.08</b>	90.72	86.78	4.34
0.1	0.3	0.7	63.04	<b>63.66</b>	58.04	8.83
0.2	0.5	0.8	63.30	<b>64.62</b>	59.66	7.68
0	0.25	0.5	50.20	<b>52.10</b>	47.36	9.10
0	0.1	0.8	<b>83.80</b>	82.32	76.98	6.49

**Table 131. Percentage of Rejection for K=3, Normal Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.52	<b>5.38</b>	5.26	2.23
0	0	0.5	<b>49.84</b>	46.26	40.84	11.72
0	0.5	0.5	49.34	<b>49.86</b>	45.38	8.99
0.05	0.25	0.5	<b>43.98</b>	42.32	37.96	10.30
0	0.3	0.5	<b>50.46</b>	48.76	44.12	9.52
0	0	1	<b>94.76</b>	90.16	85.10	5.61
0	1	1	<b>94.46</b>	93.06	89.94	3.35
0	0.5	1	<b>95.24</b>	91.90	87.96	4.29
0.5	0.5	1	<b>49.84</b>	46.26	40.84	11.72
0.5	1	1	49.34	<b>49.86</b>	45.38	8.99
0.1	0.5	1	<b>91.08</b>	86.66	81.58	5.86
0.1	0.3	0.7	<b>63.04</b>	58.94	53.42	9.37
0.2	0.5	0.8	<b>63.30</b>	60.02	54.46	9.26
0	0.25	0.5	<b>50.20</b>	48.34	43.68	9.64
0	0.1	0.8	<b>83.80</b>	77.88	71.46	8.24

**Table 132. Percentage of Rejection for K=3, Normal Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=5$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	5.42	5.64	<b>5.82</b>	-3.19
0	0	0.5	<b>61.32</b>	55.88	48.42	13.35
0	0.5	0.5	60.94	<b>61.84</b>	55.98	9.48
0.05	0.25	0.5	<b>54.34</b>	51.98	45.88	11.74
0	0.3	0.5	<b>61.22</b>	60.24	52.80	12.35
0	0	1	<b>98.28</b>	97.02	92.16	5.01
0	1	1	<b>98.30</b>	<b>98.66</b>	96.78	1.91
0	0.5	1	<b>98.44</b>	98.12	94.90	3.28
0.5	0.5	1	<b>61.32</b>	55.88	48.42	13.35
0.5	1	1	60.94	<b>61.84</b>	55.98	9.48
0.1	0.5	1	<b>96.18</b>	95.48	90.40	5.32
0.1	0.3	0.7	<b>74.96</b>	71.50	62.84	12.11
0.2	0.5	0.8	<b>74.78</b>	72.88	64.26	11.83
0	0.25	0.5	<b>60.86</b>	59.26	52.36	11.64
0	0.1	0.8	<b>91.92</b>	89.16	81.16	8.97

**Table 133. Percentage of Rejection for K=3, Normal Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=5$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	5.42	6.00	<b>6.60</b>	-10
0	0	0.5	<b>61.32</b>	52.44	44.84	14.49
0	0.5	0.5	<b>60.94</b>	57.16	49.80	12.88
0.05	0.25	0.5	<b>54.34</b>	48.22	42.34	12.19
0	0.3	0.5	<b>61.22</b>	56.06	48.42	13.63
0	0	1	<b>98.28</b>	95.14	87.60	7.93
0	1	1	<b>98.30</b>	97.06	92.70	4.49
0	0.5	1	<b>98.44</b>	96.46	90.92	5.74
0.5	0.5	1	<b>61.32</b>	52.44	44.84	14.49
0.5	1	1	<b>60.94</b>	57.16	49.80	12.88
0.1	0.5	1	<b>96.18</b>	92.88	85.58	7.86
0.1	0.3	0.7	<b>74.96</b>	67.02	56.94	15.04
0.2	0.5	0.8	<b>74.78</b>	67.86	58.66	13.56
0	0.25	0.5	<b>60.86</b>	55.50	48.02	13.48
0	0.1	0.8	<b>91.92</b>	85.02	74.70	12.14

**Table 134. Percentage of Rejection for K=3, Exponential Distribution, Block=16,  
n<sub>1</sub>=8, n<sub>2</sub>=n<sub>3</sub>=4, Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.48	<b>5.84</b>	5.3	9.25
0	0	0.5	51.24	<b>53.16</b>	41.64	21.67
0	0.5	0.5	51.44	<b>59.98</b>	49.84	16.91
0.05	0.25	0.5	47.54	<b>51.52</b>	41.74	18.98
0	0.3	0.5	54.32	<b>59.54</b>	48.46	18.61
0	0	1	90.34	<b>92.12</b>	81.88	11.12
0	1	1	88.80	<b>95.12</b>	89.80	5.59
0	0.5	1	93.38	<b>95.96</b>	89.02	7.23
0.5	0.5	1	51.24	<b>53.16</b>	41.64	21.67
0.5	1	1	51.44	<b>59.98</b>	49.84	16.91
0.1	0.5	1	89.42	<b>92.56</b>	83.54	9.75
0.1	0.3	0.7	65.08	<b>69.62</b>	56.84	18.36
0.2	0.5	0.8	65.50	<b>70.76</b>	58.96	16.68
0	0.25	0.5	54.90	<b>58.76</b>	47.52	19.13
0	0.1	0.8	81.02	<b>84.34</b>	71.42	15.32

**Table 135. Percentage of Rejection for K=3, Exponential Distribution, Block=16,  
n<sub>1</sub>=8, n<sub>2</sub>=n<sub>3</sub>=4, Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.48	<b>6.32</b>	6.02	4.75
0	0	0.5	<b>51.24</b>	48.10	36.24	24.66
0	0.5	0.5	51.44	<b>51.84</b>	41.04	20.83
0.05	0.25	0.5	<b>47.54</b>	45.70	34.70	24.07
0	0.3	0.5	<b>54.32</b>	52.52	40.88	22.16
0	0	1	<b>90.34</b>	85.92	70.54	17.90
0	1	1	88.80	<b>89.14</b>	78.60	11.82
0	0.5	1	<b>93.38</b>	90.70	78.28	13.69
0.5	0.5	1	<b>51.24</b>	48.10	36.24	24.66
0.5	1	1	51.44	<b>51.84</b>	41.04	20.83
0.1	0.5	1	<b>89.42</b>	86.10	72.56	15.73
0.1	0.3	0.7	<b>65.08</b>	62.24	47.62	23.49
0.2	0.5	0.8	<b>65.50</b>	63.46	49.14	22.57
0	0.25	0.5	<b>54.90</b>	51.98	40.38	22.32
0	0.1	0.8	<b>81.02</b>	76.70	60.86	20.65

**Table 136. Percentage of Rejection for K=3, Exponential Distribution, Block=32,  $n_1=8, n_2=n_3=4, \text{Variance}=0.25$**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.44	<b>5.90</b>	5.58	5.42
0	0	0.5	<b>78.26</b>	71.58	65.60	8.35
0	0.5	0.5	<b>76.98</b>	76.54	71.70	6.32
0.05	0.25	0.5	<b>73.34</b>	68.88	63.66	7.58
0	0.3	0.5	<b>80.46</b>	77.16	71.48	7.36
0	0	1	<b>99.62</b>	99.08	97.72	1.37
0	1	1	<b>99.22</b>	<b>99.38</b>	98.76	0.62
0	0.5	1	<b>99.86</b>	99.56	98.92	0.64
0.5	0.5	1	<b>78.26</b>	71.58	65.60	8.35
0.5	1	1	<b>76.98</b>	76.54	71.70	6.32
0.1	0.5	1	<b>99.34</b>	98.74	97.52	1.24
0.1	0.3	0.7	<b>90.00</b>	86.06	81.06	5.81
0.2	0.5	0.8	<b>89.92</b>	86.94	82.14	5.52
0	0.25	0.5	<b>80.02</b>	76.20	70.74	7.17
0	0.1	0.8	<b>97.68</b>	95.84	92.66	3.32

**Table 137. Percentage of Rejection for K=3, Exponential Distribution, Block=32,  $n_1=8, n_2=n_3=4, \text{Variance}=1$**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.44	5.78	<b>5.82</b>	-0.69
0	0	0.5	<b>78.26</b>	66.54	59.62	10.40
0	0.5	0.5	<b>76.98</b>	69.82	63.84	8.56
0.05	0.25	0.5	<b>73.34</b>	63.48	57.58	9.29
0	0.3	0.5	<b>80.46</b>	71.16	64.26	9.70
0	0	1	<b>99.62</b>	97.36	94.36	3.08
0	1	1	<b>99.22</b>	97.74	95.52	2.27
0	0.5	1	<b>99.86</b>	98.62	96.88	1.76
0.5	0.5	1	<b>78.26</b>	66.54	59.62	10.40
0.5	1	1	<b>76.98</b>	69.82	63.84	8.56
0.1	0.5	1	<b>99.34</b>	97.08	94.22	2.95
0.1	0.3	0.7	<b>90.00</b>	80.48	74.56	7.36
0.2	0.5	0.8	<b>89.92</b>	81.24	75.38	7.21
0	0.25	0.5	<b>80.02</b>	70.36	64.10	8.90
0	0.1	0.8	<b>97.68</b>	92.12	86.92	5.64

**Table 138. Percentage of Rejection for K=3, Exponential Distribution, Block=40,  
 $n_1=10, n_2=n_3=5, \text{Variance}=0.25$**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.98	5.30	<b>5.74</b>	-8.30
0	0	0.5	<b>87.90</b>	80.68	70.14	13.06
0	0.5	0.5	<b>86.54</b>	84.24	76.76	8.88
0.05	0.25	0.5	<b>84.02</b>	77.24	68.10	11.83
0	0.3	0.5	<b>89.48</b>	84.58	76.10	10.03
0	0	1	<b>99.96</b>	99.76	98.42	1.34
0	1	1	<b>99.94</b>	99.92	99.44	0.48
0	0.5	1	<b>99.98</b>	99.96	99.48	0.48
0.5	0.5	1	<b>87.90</b>	80.68	70.14	13.06
0.5	1	1	<b>86.54</b>	84.24	76.76	8.88
0.1	0.5	1	<b>99.94</b>	99.70	98.44	1.26
0.1	0.3	0.7	<b>95.76</b>	92.18	85.10	7.68
0.2	0.5	0.8	<b>95.98</b>	92.84	86.08	7.28
0	0.25	0.5	<b>89.20</b>	84.22	75.32	10.57
0	0.1	0.8	<b>99.52</b>	98.62	94.74	3.93

**Table 139. Percentage of Rejection for K=3, Exponential Distribution, Block=40,  
 $n_1=10, n_2=n_3=5, \text{Variance}=1$**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.98	5.78	<b>6.44</b>	-11.42
0	0	0.5	<b>87.90</b>	74.60	61.74	17.24
0	0.5	0.5	<b>86.54</b>	77.54	67.18	13.36
0.05	0.25	0.5	<b>84.02</b>	71.54	59.48	16.86
0	0.3	0.5	<b>89.48</b>	78.12	67.30	13.85
0	0	1	<b>99.96</b>	99.10	95.12	4.02
0	1	1	<b>99.94</b>	99.56	97.26	2.31
0	0.5	1	<b>99.98</b>	99.64	97.40	2.25
0.5	0.5	1	<b>87.90</b>	74.60	61.74	17.24
0.5	1	1	<b>86.54</b>	77.54	67.18	13.36
0.1	0.5	1	<b>99.94</b>	99.10	94.86	4.28
0.1	0.3	0.7	<b>95.76</b>	87.64	77.12	12.00
0.2	0.5	0.8	<b>95.98</b>	88.12	77.90	11.60
0	0.25	0.5	<b>89.20</b>	78.08	66.78	14.47
0	0.1	0.8	<b>99.52</b>	96.36	88.98	7.66



**Table 140. Percentage of Rejection for K=3, t-Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.40	5.72	<b>6.00</b>	-4.90
0	0	0.5	23.06	<b>28.40</b>	24.18	14.86
0	0.5	0.5	22.68	<b>32.04</b>	28.44	11.24
0.05	0.25	0.5	20.40	<b>26.64</b>	23.16	13.06
0	0.3	0.5	22.90	<b>30.74</b>	26.66	13.27
0	0	1	56.50	<b>63.14</b>	53.18	15.77
0	1	1	56.04	<b>71.02</b>	62.88	11.46
0	0.5	1	57.28	<b>68.12</b>	59.40	12.80
0.5	0.5	1	23.06	<b>28.40</b>	24.18	14.86
0.5	1	1	22.68	<b>32.04</b>	28.44	11.24
0.1	0.5	1	50.14	<b>60.98</b>	52.42	14.04
0.1	0.3	0.7	29.36	<b>37.48</b>	32.14	14.25
0.2	0.5	0.8	29.46	<b>38.06</b>	32.98	13.35
0	0.25	0.5	23.28	<b>30.66</b>	26.44	13.76
0	0.1	0.8	43.46	<b>50.74</b>	42.82	15.61

**Table 141. Percentage of Rejection for K=3, t-Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.4	7.6	<b>8.86</b>	-16.58
0	0	0.5	23.06	<b>29.94</b>	27.00	9.82
0	0.5	0.5	22.68	<b>32.20</b>	29.70	7.76
0.05	0.25	0.5	20.40	<b>28.16</b>	25.68	8.81
0	0.3	0.5	22.90	<b>31.22</b>	28.82	7.69
0	0	1	56.50	<b>60.70</b>	50.70	16.47
0	1	1	56.04	<b>65.28</b>	58.06	11.06
0	0.5	1	57.28	<b>64.26</b>	54.90	14.57
0.5	0.5	1	23.06	<b>29.94</b>	27.00	9.82
0.5	1	1	22.68	<b>32.20</b>	29.70	7.76
0.1	0.5	1	50.14	<b>57.28</b>	49.66	13.30
0.1	0.3	0.7	29.36	<b>37.00</b>	33.04	10.70
0.2	0.5	0.8	29.46	<b>37.54</b>	33.36	11.13
0	0.25	0.5	23.28	<b>31.42</b>	28.48	9.36
0	0.1	0.8	43.46	<b>49.56</b>	42.32	14.61

**Table 142. Percentage of Rejection for K=3, t-Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.42	5.94	<b>6.02</b>	-1.35
0	0	0.5	36.76	<b>37.74</b>	34.46	8.69
0	0.5	0.5	36.60	<b>41.88</b>	39.16	6.49
0.05	0.25	0.5	32.06	<b>35.12</b>	32.78	6.66
0	0.3	0.5	37.50	<b>39.96</b>	37.90	5.16
0	0	1	<b>81.80</b>	79.50	74.24	6.62
0	1	1	<b>82.16</b>	<b>85.26</b>	81.42	4.50
0	0.5	1	<b>83.30</b>	83.24	78.96	5.14
0.5	0.5	1	36.76	<b>37.74</b>	34.46	8.69
0.5	1	1	36.60	<b>41.88</b>	39.16	6.49
0.1	0.5	1	<b>76.64</b>	76.32	71.76	5.97
0.1	0.3	0.7	47.56	<b>48.84</b>	45.04	7.78
0.2	0.5	0.8	47.68	<b>49.58</b>	45.86	7.50
0	0.25	0.5	37.26	<b>40.06</b>	37.56	6.24
0	0.1	0.8	<b>67.48</b>	66.26	61.30	7.49

**Table 143. Percentage of Rejection for K=3, t-Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	4.42	8.48	<b>8.80</b>	-3.77
0	0	0.5	36.76	<b>38.40</b>	35.76	6.88
0	0.5	0.5	36.60	<b>41.04</b>	38.98	5.02
0.05	0.25	0.5	32.06	<b>35.72</b>	33.78	5.43
0	0.3	0.5	37.50	<b>39.94</b>	37.86	5.21
0	0	1	<b>81.80</b>	75.38	70.18	6.90
0	1	1	<b>82.16</b>	79.86	75.42	5.56
0	0.5	1	<b>83.30</b>	78.58	73.88	5.98
0.5	0.5	1	36.76	<b>38.40</b>	35.76	6.88
0.5	1	1	36.60	<b>41.04</b>	38.98	5.02
0.1	0.5	1	<b>76.64</b>	72.22	67.26	6.87
0.1	0.3	0.7	47.56	<b>47.68</b>	44.40	6.88
0.2	0.5	0.8	47.68	<b>48.08</b>	45.16	6.07
0	0.25	0.5	37.26	<b>39.70</b>	37.56	5.39
0	0.1	0.8	<b>67.48</b>	63.14	58.36	7.57

**Table 144. Percentage of Rejection for K=3, t-Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=5$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	5.36	6.62	7.86	-18.73
0	0	0.5	<b>45.40</b>	44.22	39.30	11.13
0	0.5	0.5	46.30	<b>48.72</b>	44.16	9.36
0.05	0.25	0.5	40.34	<b>41.16</b>	37.22	9.57
0	0.3	0.5	46.36	<b>47.36</b>	42.36	10.56
0	0	1	<b>90.52</b>	85.96	77.88	9.40
0	1	1	90.66	<b>91.02</b>	85.52	6.04
0	0.5	1	<b>91.86</b>	89.38	82.98	7.16
0.5	0.5	1	<b>45.40</b>	44.22	39.30	11.13
0.5	1	1	46.30	<b>48.72</b>	44.16	9.36
0.1	0.5	1	<b>86.44</b>	83.34	76.06	8.74
0.1	0.3	0.7	<b>58.10</b>	56.22	50.14	10.81
0.2	0.5	0.8	<b>57.82</b>	57.48	51.54	10.33
0	0.25	0.5	46.24	<b>46.94</b>	41.88	10.78
0	0.1	0.8	<b>78.58</b>	74.80	65.98	11.79

**Table 145. Percentage of Rejection for K=3, t-Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=5$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	5.36	9.66	<b>12.44</b>	-28.78
0	0	0.5	<b>45.40</b>	43.82	39.80	9.17
0	0.5	0.5	46.30	<b>47.28</b>	43.06	8.93
0.05	0.25	0.5	40.34	<b>41.06</b>	38.02	7.40
0	0.3	0.5	<b>46.36</b>	46.16	42.30	8.36
0	0	1	<b>90.52</b>	81.18	72.38	10.84
0	1	1	<b>90.66</b>	84.98	77.72	8.54
0	0.5	1	<b>91.86</b>	83.68	75.80	9.42
0.5	0.5	1	<b>45.40</b>	43.82	39.80	9.17
0.5	1	1	46.30	<b>47.28</b>	43.06	8.93
0.1	0.5	1	<b>86.44</b>	78.26	70.08	10.45
0.1	0.3	0.7	<b>58.10</b>	53.16	48.08	9.56
0.2	0.5	0.8	<b>57.82</b>	54.24	48.72	10.18
0	0.25	0.5	<b>46.24</b>	45.80	41.84	8.65
0	0.1	0.8	<b>78.58</b>	69.96	61.28	12.41

**Table 146. Percentage of Rejection for K=4, Normal Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.48	5.38	<b>5.66</b>	-5.20
0	0.1	0.2	0.3	20.60	<b>21.84</b>	21.4	2.01
0	0	0.25	0.25	20.74	<b>21.56</b>	20.86	3.25
0	0.125	0.25	0.25	18.16	<b>19.36</b>	19.10	1.34
0	0	0	0.5	32.38	<b>32.46</b>	31.08	4.25
0.05	0.1	0.3	0.5	34.16	<b>36.46</b>	34.66	4.94
0	0	0.5	0.5	47.98	<b>51.70</b>	49.44	4.37
0	0.25	0.5	0.5	40.40	<b>46.22</b>	44.86	2.94
0	0.5	0.5	1	75.68	<b>82.26</b>	80.00	2.75
0	0.25	0.25	0.5	33.10	<b>36.90</b>	35.52	3.74
0	0.25	0.25	0.25	15.98	<b>17.20</b>	17.54	-1.98
0.1	0.2	0.6	1	77.92	<b>81.88</b>	79.14	3.35
0.25	0.25	0.5	0.5	20.74	<b>21.56</b>	20.86	3.25
0	0.1	0.3	0.7	56.74	<b>61.10</b>	58.18	4.78
0	0.05	0.15	0.35	23.70	<b>24.84</b>	24.26	2.33
0	0.15	0.2	0.5	34.54	<b>37.06</b>	35.36	4.59
0	0	0.1	0.6	44.54	<b>45.80</b>	43.38	5.28
0	0	0.05	0.3	19.50	<b>19.70</b>	18.88	4.16

**Table 147. Percentage of Rejection for K=4, Normal Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.48	6.08	<b>6.30</b>	-3.62
0	0.1	0.2	0.3	20.60	<b>20.98</b>	20.62	1.72
0	0	0.25	0.25	20.74	20.38	20.14	1.18
0	0.125	0.25	0.25	18.16	<b>18.76</b>	18.66	0.53
0	0	0	0.5	32.38	30.76	29.12	5.33
0.05	0.1	0.3	0.5	34.16	33.94	32.10	5.42
0	0	0.5	0.5	47.98	47.18	44.60	5.47
0	0.25	0.5	0.5	40.40	<b>42.04</b>	40.02	4.80
0	0.5	0.5	1	75.68	<b>76.78</b>	72.84	5.13
0	0.25	0.25	0.5	33.10	<b>33.5</b>	32.24	3.76
0	0.25	0.25	0.25	15.98	<b>17.00</b>	16.94	0.35
0.1	0.2	0.6	1	77.92	76.50	72.24	5.57
0.25	0.25	0.5	0.5	20.74	20.38	20.14	1.18
0	0.1	0.3	0.7	56.74	56.14	53.02	5.56
0	0.05	0.15	0.35	23.70	<b>23.64</b>	23.12	2.20
0	0.15	0.2	0.5	34.54	34.24	32.56	4.91
0	0	0.1	0.6	44.54	42.36	39.78	6.09
0	0	0.05	0.3	19.50	19.24	18.50	3.85

**Table 148. Percentage of Rejection for K=4, Normal Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.92	<b>5.5</b>	5.22	5.09
0	0.1	0.2	0.3	<b>30.60</b>	29.92	30.38	-1.54
0	0	0.25	0.25	<b>30.44</b>	29.32	29.66	-1.16
0	0.125	0.25	0.25	<b>26.00</b>	26.62	<b>26.72</b>	-0.38
0	0	0	0.5	<b>51.34</b>	46.40	47.24	-1.81
0.05	0.1	0.3	0.5	<b>53.70</b>	51.40	52.06	-1.28
0	0	0.5	0.5	<b>71.94</b>	68.74	69.74	-1.45
0	0.25	0.5	0.5	<b>62.42</b>	61.66	<b>62.84</b>	-1.91
0	0.5	0.5	1	<b>95.56</b>	94.90	95.36	-0.48
0	0.25	0.25	0.5	<b>51.86</b>	51.28	51.62	-0.66
0	0.25	0.25	0.25	21.90	23.28	<b>23.28</b>	0.00
0.1	0.2	0.6	1	<b>96.58</b>	94.82	95.38	-0.59
0.25	0.25	0.5	0.5	<b>30.44</b>	29.32	29.66	-1.16
0	0.1	0.3	0.7	<b>81.38</b>	77.78	79.04	-1.62
0	0.05	0.15	0.35	<b>36.48</b>	34.26	34.54	-0.82
0	0.15	0.2	0.5	<b>53.70</b>	51.40	51.82	-0.82
0	0	0.1	0.6	<b>67.62</b>	63.04	64.42	-2.19
0	0	0.05	0.3	<b>28.6</b>	27.02	26.88	0.52

**Table 149. Percentage of Rejection for K=4, Normal Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.92	<b>6.12</b>	5.74	6.21
0	0.1	0.2	0.3	<b>30.60</b>	28.66	28.62	0.14
0	0	0.25	0.25	<b>30.44</b>	27.82	28.42	-2.16
0	0.125	0.25	0.25	<b>26.00</b>	24.76	25.02	-1.05
0	0	0	0.5	<b>51.34</b>	44.08	44.72	-1.45
0.05	0.1	0.3	0.5	<b>53.70</b>	47.34	48.10	-1.61
0	0	0.5	0.5	<b>71.94</b>	63.94	65.36	-2.22
0	0.25	0.5	0.5	<b>62.42</b>	57.40	58.12	-1.25
0	0.5	0.5	1	<b>95.56</b>	91.70	92.76	-1.16
0	0.25	0.25	0.5	<b>51.86</b>	47.38	47.80	-0.89
0	0.25	0.25	0.25	21.90	<b>22.26</b>	22.06	0.90
0.1	0.2	0.6	1	<b>96.58</b>	91.90	92.86	-1.04
0.25	0.25	0.5	0.5	<b>30.44</b>	27.82	28.42	-2.16
0	0.1	0.3	0.7	<b>81.38</b>	73.42	74.84	-1.93
0	0.05	0.15	0.35	<b>36.48</b>	32.80	33.16	-1.10
0	0.15	0.2	0.5	<b>53.70</b>	47.34	48.26	-1.94
0	0	0.1	0.6	<b>67.62</b>	58.74	60.14	-2.38
0	0	0.05	0.3	<b>28.60</b>	25.80	25.82	-0.08

**Table 150. Percentage of Rejection for K=4, Normal Distribution, Block=40,  $n_1=10, n_2=n_3=n_4=5$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.48	<b>5.38</b>	5.38	0
0	0.1	0.2	0.3	32.88	<b>33.68</b>	32.46	3.62
0	0	0.25	0.25	32.96	<b>33.12</b>	31.80	3.99
0	0.125	0.25	0.25	28.04	<b>29.46</b>	28.50	3.26
0	0	0	0.5	<b>56.98</b>	52.82	50.96	3.52
0.05	0.1	0.3	0.5	<b>59.98</b>	57.82	55.94	3.25
0	0	0.5	0.5	<b>78.52</b>	76.46	74.26	2.88
0	0.25	0.5	0.5	<b>69.30</b>	61.92	60.14	2.87
0	0.5	0.5	1	<b>97.82</b>	97.42	96.88	0.55
0	0.25	0.25	0.5	57.42	<b>58.04</b>	56.16	3.24
0	0.25	0.25	0.25	22.82	<b>25.68</b>	25.30	1.48
0.1	0.2	0.6	1	<b>98.36</b>	97.38	96.74	0.66
0.25	0.25	0.5	0.5	32.96	<b>33.12</b>	31.80	3.99
0	0.1	0.3	0.7	<b>88.02</b>	85.26	83.74	1.78
0	0.05	0.15	0.35	39.18	<b>39.28</b>	37.86	3.62
0	0.15	0.2	0.5	<b>59.68</b>	58.56	56.42	3.65
0	0	0.1	0.6	<b>74.54</b>	70.62	68.66	2.78
0	0	0.05	0.3	30.52	<b>35.76</b>	33.98	4.98

**Table 151. Percentage of Rejection for K=4, Normal Distribution, Block=40,  $n_1=10, n_2=n_3=n_4=5$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.48	<b>6.00</b>	5.96	0.67
0	0.1	0.2	0.3	<b>32.88</b>	31.56	30.58	3.11
0	0	0.25	0.25	<b>32.96</b>	31.06	30.1	3.09
0	0.125	0.25	0.25	<b>28.04</b>	27.32	26.82	1.83
0	0	0	0.5	<b>56.98</b>	49.44	47.54	3.84
0.05	0.1	0.3	0.5	<b>59.98</b>	53.74	51.62	3.94
0	0	0.5	0.5	<b>78.52</b>	72.12	69.54	3.58
0	0.25	0.5	0.5	<b>69.30</b>	56.16	54.38	3.17
0	0.5	0.5	1	<b>97.82</b>	95.50	94.28	1.28
0	0.25	0.25	0.5	<b>57.42</b>	53.22	51.20	3.80
0	0.25	0.25	0.25	22.82	<b>24.14</b>	23.74	1.66
0.1	0.2	0.6	1	<b>98.36</b>	95.70	94.58	1.17
0.25	0.25	0.5	0.5	<b>32.96</b>	31.06	30.10	3.09
0	0.1	0.3	0.7	<b>88.02</b>	81.24	79.04	2.71
0	0.05	0.15	0.35	<b>39.18</b>	36.70	35.58	3.05
0	0.15	0.2	0.5	<b>59.68</b>	53.92	52.12	3.34
0	0	0.1	0.6	<b>74.54</b>	66.06	63.54	3.81
0	0	0.05	0.3	30.52	<b>34.36</b>	32.58	5.18

**Table 152. Percentage of Rejection for K=4, Exponential Distribution, Block=16,  
 $n_1=8, n_2=n_3=n_4=4, \text{Variance}=0.25$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.46	<b>5.56</b>	5.7	-2.52
0	0.1	0.2	0.3	35.66	<b>36.00</b>	33.94	5.72
0	0	0.25	0.25	<b>35.32</b>	34.18	32.68	4.39
0	0.125	0.25	0.25	30.46	<b>31.02</b>	29.98	3.35
0	0	0	0.5	<b>51.64</b>	49.96	46.48	6.97
0.05	0.1	0.3	0.5	<b>59.22</b>	58.16	54.60	6.12
0	0	0.5	0.5	73.66	<b>73.76</b>	69.98	5.12
0	0.25	0.5	0.5	65.30	<b>67.98</b>	65.30	3.94
0	0.5	0.5	1	93.98	<b>96.02</b>	94.22	1.87
0	0.25	0.25	0.5	56.34	<b>58.12</b>	54.62	6.02
0	0.25	0.25	0.25	24.92	<b>26.48</b>	26.08	1.51
0.1	0.2	0.6	1	95.40	<b>95.74</b>	94.18	1.63
0.25	0.25	0.5	0.5	<b>35.32</b>	34.18	32.68	4.39
0	0.1	0.3	0.7	82.82	<b>82.98</b>	79.12	4.65
0	0.05	0.15	0.35	<b>41.98</b>	41.14	38.76	5.79
0	0.15	0.2	0.5	<b>58.48</b>	58.48	54.94	6.05
0	0	0.1	0.6	<b>68.52</b>	67.06	62.7	6.50
0	0	0.05	0.3	<b>32.38</b>	30.92	29.24	5.43

**Table 153. Percentage of Rejection for K=4, Exponential Distribution, Block=16,  
 $n_1=8, n_2=n_3=n_4=4, \text{Variance}=1$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.46	5.70	<b>6.22</b>	-9.12
0	0.1	0.2	0.3	<b>35.66</b>	32.42	30.64	5.49
0	0	0.25	0.25	<b>35.32</b>	31.48	29.62	5.91
0	0.125	0.25	0.25	<b>30.46</b>	28.30	27.18	3.96
0	0	0	0.5	<b>51.64</b>	45.38	42.18	7.05
0.05	0.1	0.3	0.5	<b>59.22</b>	51.98	48.44	6.81
0	0	0.5	0.5	73.66	66.30	61.84	6.73
0	0.25	0.5	0.5	<b>65.3</b>	60.72	56.94	6.23
0	0.5	0.5	1	<b>93.98</b>	91.06	87.10	4.35
0	0.25	0.25	0.5	<b>56.34</b>	51.24	47.90	6.52
0	0.25	0.25	0.25	24.92	24.52	23.74	3.18
0.1	0.2	0.6	1	<b>95.40</b>	91.62	87.44	4.56
0.25	0.25	0.5	0.5	<b>35.32</b>	31.48	29.62	5.91
0	0.1	0.3	0.7	<b>82.82</b>	75.32	70.16	6.85
0	0.05	0.15	0.35	<b>41.98</b>	36.76	34.32	6.64
0	0.15	0.2	0.5	<b>58.48</b>	52.10	48.18	7.52
0	0	0.1	0.6	<b>68.52</b>	59.94	55.40	7.57
0	0	0.05	0.3	<b>32.38</b>	29.02	27.16	6.41

**Table 154. Percentage of Rejection for K=4, Exponential Distribution, Block=32,  
 $n_1=8, n_2=n_3=n_4=4, \text{Variance}=0.25$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.22	5.42	5.24	3.32
0	0.1	0.2	0.3	54.86	49.32	50.12	-1.62
0	0	0.25	0.25	54.42	48.10	49.04	-1.95
0	0.125	0.25	0.25	46.56	43.04	43.52	-1.12
0	0	0	0.5	77.74	69.06	70.92	-2.69
0.05	0.1	0.3	0.5	84.20	76.30	77.94	-2.15
0	0	0.5	0.5	94.18	89.64	90.60	-1.07
0	0.25	0.5	0.5	88.56	85.10	86.04	-1.10
0	0.5	0.5	1	99.78	99.66	99.76	-0.10
0	0.25	0.25	0.5	80.58	75.16	76.64	-1.97
0	0.25	0.25	0.25	36.76	36.10	36.22	-0.33
0.1	0.2	0.6	1	99.96	99.58	99.76	-0.18
0.25	0.25	0.5	0.5	54.42	48.10	49.04	-1.95
0	0.1	0.3	0.7	97.94	95.08	95.90	-0.86
0	0.05	0.15	0.35	63.42	56.28	57.54	-2.24
0	0.15	0.2	0.5	83.26	76.64	78.1	-1.91
0	0	0.1	0.6	91.76	85.38	86.78	-1.64
0	0	0.05	0.3	49.64	43.64	44.58	-2.15

**Table 155. Percentage of Rejection for K=4, Exponential Distribution, Block=32,  
 $n_1=8, n_2=n_3=n_4=4, \text{Variance}=1$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.22	6.1	5.86	3.93
0	0.1	0.2	0.3	54.86	45.12	46.08	-2.13
0	0	0.25	0.25	54.42	44.38	45.56	-2.66
0	0.125	0.25	0.25	46.56	39.10	39.66	-1.43
0	0	0	0.5	77.74	63.64	65.78	-3.36
0.05	0.1	0.3	0.5	84.20	71.46	73.50	-2.85
0	0	0.5	0.5	94.18	85.02	86.78	-2.07
0	0.25	0.5	0.5	88.56	79.32	80.82	-1.89
0	0.5	0.5	1	99.78	98.82	99.22	-0.40
0	0.25	0.25	0.5	80.58	69.64	71.24	-2.30
0	0.25	0.25	0.25	36.76	32.34	32.84	-1.55
0.1	0.2	0.6	1	99.96	99.00	99.34	-0.34
0.25	0.25	0.5	0.5	54.42	44.38	45.56	-2.66
0	0.1	0.3	0.7	97.94	91.38	92.80	-1.55
0	0.05	0.15	0.35	63.42	51.68	53.34	-3.21
0	0.15	0.2	0.5	83.26	71.22	73.18	-2.75
0	0	0.1	0.6	91.76	80.48	82.52	-2.53
0	0	0.05	0.3	49.64	40.30	41.20	-2.23



**Table 156. Percentage of Rejection for K=4, Exponential Distribution, Block=40,  
 $n_1=10, n_2=n_3=n_4=5, \text{Variance}=0.25$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.48	4.9	4.98	-1.63
0	0.1	0.2	0.3	61.56	56.52	54.32	3.89
0	0	0.25	0.25	61.50	55.32	53.10	4.01
0	0.125	0.25	0.25	52.38	48.72	47.36	2.79
0	0	0	0.5	84.84	77.04	74.200	3.69
0.05	0.1	0.3	0.5	90.14	84.18	81.70	2.95
0	0	0.5	0.5	97.34	95.06	93.74	1.39
0	0.25	0.5	0.5	93.48	83.78	82.04	2.08
0	0.5	0.5	1	99.98	99.94	99.90	0.04
0	0.25	0.25	0.5	87.36	83.08	80.68	2.89
0	0.25	0.25	0.25	40.64	41.66	40.24	3.41
0.1	0.2	0.6	1	99.98	99.96	99.94	0.02
0.25	0.25	0.5	0.5	61.50	55.32	53.10	4.01
0	0.1	0.3	0.7	99.42	98.32	97.56	0.77
0	0.05	0.15	0.35	71.24	64.36	62.14	3.45
0	0.15	0.2	0.5	89.42	83.98	81.90	2.48
0	0	0.1	0.6	95.88	91.74	89.70	2.22
0	0	0.05	0.3	56.28	60.54	58.00	4.20

**Table 157. Percentage of Rejection for K=4, Exponential Distribution, Block=40,  
 $n_1=10, n_2=n_3=n_4=5, \text{Variance}=1$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.48	5.40	5.66	-4.81
0	0.1	0.2	0.3	61.56	51.82	49.50	4.48
0	0	0.25	0.25	61.50	50.48	48.38	4.16
0	0.125	0.25	0.25	52.38	44.84	42.64	4.91
0	0	0	0.5	84.84	70.86	67.84	4.26
0.05	0.1	0.3	0.5	90.14	78.58	75.70	3.67
0	0	0.5	0.5	97.34	91.28	89.20	2.28
0	0.25	0.5	0.5	93.48	77.58	74.42	4.07
0	0.5	0.5	1	99.98	99.66	99.42	0.24
0	0.25	0.25	0.5	87.36	77.4	74.52	3.72
0	0.25	0.25	0.25	40.64	36.92	35.54	3.74
0.1	0.2	0.6	1	99.98	99.88	99.70	0.18
0.25	0.25	0.5	0.5	61.50	50.48	48.38	4.16
0	0.1	0.3	0.7	99.42	96.04	94.58	1.52
0	0.05	0.15	0.35	71.24	59.44	56.80	4.44
0	0.15	0.2	0.5	89.42	78.46	75.50	3.77
0	0	0.1	0.6	95.88	87.32	84.66	3.05
0	0	0.05	0.3	56.28	56.52	53.82	4.78

**Table 158. Percentage of Rejection for K=4, t-Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.32	6.22	<b>6.62</b>	-6.43
0	0.1	0.2	0.3	16.66	<b>19.44</b>	19.22	1.13
0	0	0.25	0.25	16.98	19.00	<b>19.06</b>	-0.32
0	0.125	0.25	0.25	15.02	<b>17.68</b>	17.68	0.00
0	0	0	0.5	25.80	<b>27.12</b>	26.24	3.24
0.05	0.1	0.3	0.5	27.14	<b>29.26</b>	28.86	1.37
0	0	0.5	0.5	36.58	<b>39.82</b>	38.88	2.36
0	0.25	0.5	0.5	31.48	<b>35.62</b>	35.16	1.29
0	0.5	0.5	1	60.52	<b>67.82</b>	65.6	3.27
0	0.25	0.25	0.5	26.24	<b>29.46</b>	29.24	0.75
0	0.25	0.25	0.25	12.80	<b>16.04</b>	16.26	-1.37
0.1	0.2	0.6	1	62.68	<b>67.9</b>	64.82	4.54
0.25	0.25	0.5	0.5	16.98	<b>19.00</b>	19.06	-0.32
0	0.1	0.3	0.7	43.82	<b>47.54</b>	45.64	4.00
0	0.05	0.15	0.35	19.42	<b>21.64</b>	21.26	1.76
0	0.15	0.2	0.5	27.20	<b>29.68</b>	29.42	0.88
0	0	0.1	0.6	34.04	<b>35.96</b>	34.46	4.17
0	0	0.05	0.3	15.64	<b>17.46</b>	17.46	0.00

**Table 159. Percentage of Rejection for K=4, t-Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.32	8.90	<b>9.74</b>	-9.44
0	0.1	0.2	0.3	16.66	21.50	<b>22.30</b>	-3.72
0	0	0.25	0.25	16.98	21.22	<b>21.88</b>	-3.11
0	0.125	0.25	0.25	15.02	19.40	<b>20.44</b>	-5.36
0	0	0	0.5	25.80	<b>29.02</b>	28.88	0.48
0.05	0.1	0.3	0.5	27.14	<b>31.06</b>	31.06	0.00
0	0	0.5	0.5	36.58	<b>40.12</b>	39.48	1.60
0	0.25	0.5	0.5	31.48	<b>36.42</b>	36.38	0.11
0	0.5	0.5	1	60.52	<b>63.54</b>	61.18	3.71
0	0.25	0.25	0.5	26.24	31.02	<b>31.18</b>	-0.52
0	0.25	0.25	0.25	12.80	18.02	<b>19.20</b>	-6.55
0.1	0.2	0.6	1	62.68	<b>63.68</b>	60.56	4.90
0.25	0.25	0.5	0.5	16.98	21.22	<b>21.88</b>	-3.11
0	0.1	0.3	0.7	43.82	<b>46.90</b>	45.46	3.07
0	0.05	0.15	0.35	19.42	23.66	<b>24.14</b>	-2.03
0	0.15	0.2	0.5	27.20	31.16	<b>31.38</b>	-0.71
0	0	0.1	0.6	34.04	<b>36.94</b>	36.44	1.35
0	0	0.05	0.3	15.64	20.22	<b>21.06</b>	-4.15

**Table 160. Percentage of Rejection for K=4, t-Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.1	<b>6.74</b>	6.46	4.15
0	0.1	0.2	0.3	23.96	<b>24.68</b>	24.36	1.30
0	0	0.25	0.25	23.96	<b>24.26</b>	24.04	0.91
0	0.125	0.25	0.25	20.64	<b>21.92</b>	21.60	1.46
0	0	0	0.5	<b>39.28</b>	35.94	36.50	-1.56
0.05	0.1	0.3	0.5	<b>41.10</b>	39.32	39.82	-1.27
0	0	0.5	0.5	<b>57.10</b>	54.76	55.40	-1.17
0	0.25	0.5	0.5	48.06	48.72	<b>49.38</b>	-1.35
0	0.5	0.5	1	<b>85.40</b>	83.32	84.20	-1.06
0	0.25	0.25	0.5	<b>39.54</b>	39.10	39.52	-1.07
0	0.25	0.25	0.25	17.28	<b>19.98</b>	19.46	2.60
0.1	0.2	0.6	1	<b>86.76</b>	83.12	83.86	-0.89
0.25	0.25	0.5	0.5	23.96	<b>24.26</b>	24.04	0.91
0	0.1	0.3	0.7	<b>67.04</b>	63.70	64.78	-1.70
0	0.05	0.15	0.35	<b>28.56</b>	28.24	27.98	0.92
0	0.15	0.2	0.5	<b>41.26</b>	40.08	40.18	-0.25
0	0	0.1	0.6	<b>53.18</b>	49.66	50.42	-1.53
0	0	0.05	0.3	<b>22.40</b>	22.32	22.34	-0.09

**Table 161. Percentage of Rejection for K=4, t-Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	5.10	<b>9.42</b>	8.72	7.43
0	0.1	0.2	0.3	23.96	<b>27.00</b>	26.50	1.85
0	0	0.25	0.25	23.96	<b>27.00</b>	26.38	2.30
0	0.125	0.25	0.25	20.64	<b>24.76</b>	23.90	3.47
0	0	0	0.5	<b>39.28</b>	37.36	37.68	-0.86
0.05	0.1	0.3	0.5	<b>41.10</b>	39.86	39.84	0.05
0	0	0.5	0.5	<b>57.10</b>	52.14	52.94	-1.53
0	0.25	0.5	0.5	48.06	46.76	47.34	-1.24
0	0.5	0.5	1	<b>85.40</b>	78.16	79.38	-1.56
0	0.25	0.25	0.5	39.54	<b>40.06</b>	39.94	0.30
0	0.25	0.25	0.25	17.28	<b>22.20</b>	21.44	3.42
0.1	0.2	0.6	1	<b>86.76</b>	78.58	79.88	-1.65
0.25	0.25	0.5	0.5	23.96	27.00	<b>26.38</b>	2.30
0	0.1	0.3	0.7	<b>67.04</b>	60.30	61.42	-1.86
0	0.05	0.15	0.35	28.56	<b>30.10</b>	29.94	0.53
0	0.15	0.2	0.5	<b>41.26</b>	40.36	40.88	-1.29
0	0	0.1	0.6	<b>53.18</b>	48.92	49.58	-1.35
0	0	0.05	0.3	22.40	<b>25.26</b>	24.98	1.11

**Table 162. Percentage of Rejection for K=4, t-Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=n_4=5$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.36	7.18	7.28	-1.393
0	0.1	0.2	0.3	25.88	<b>28.58</b>	28.18	1.400
0	0	0.25	0.25	25.78	<b>27.88</b>	27.4	1.722
0	0.125	0.25	0.25	21.86	<b>25.38</b>	25.12	1.024
0	0	0	0.5	42.68	<b>42.56</b>	41.32	2.914
0.05	0.1	0.3	0.5	45.30	<b>45.96</b>	44.94	2.219
0	0	0.5	0.5	63.62	<b>61.38</b>	59.68	2.770
0	0.25	0.5	0.5	53.60	<b>48.76</b>	47.74	2.092
0	0.5	0.5	1	<b>90.98</b>	89.34	87.70	1.836
0	0.25	0.25	0.5	43.84	<b>45.74</b>	44.80	2.055
0	0.25	0.25	0.25	18.02	22.62	<b>22.64</b>	-0.088
0.1	0.2	0.6	1	<b>92.30</b>	89.34	87.68	1.858
0.25	0.25	0.5	0.5	25.78	<b>27.88</b>	27.40	1.722
0	0.1	0.3	0.7	<b>74.24</b>	70.78	68.88	2.684
0	0.05	0.15	0.35	30.92	<b>32.38</b>	31.62	2.347
0	0.15	0.2	0.5	45.62	<b>46.32</b>	45.00	2.850
0	0	0.1	0.6	<b>58.80</b>	56.66	54.86	3.177
0	0	0.05	0.3	24.12	<b>30.16</b>	29.42	2.454

**Table 163. Percentage of Rejection for K=4, t-Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=n_4=5$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	4.36	10.40	<b>11.08</b>	-6.538
0	0.1	0.2	0.3	25.88	<b>30.74</b>	30.58	0.520
0	0	0.25	0.25	25.78	<b>30.52</b>	30.24	0.917
0	0.125	0.25	0.25	21.86	27.90	<b>27.96</b>	-0.215
0	0	0	0.5	42.68	<b>43.12</b>	42.14	2.273
0.05	0.1	0.3	0.5	45.30	<b>45.36</b>	44.32	2.293
0	0	0.5	0.5	<b>63.62</b>	58.24	56.48	3.022
0	0.25	0.5	0.5	<b>53.60</b>	47.32	46.44	1.860
0	0.5	0.5	1	<b>90.98</b>	83.40	81.4	2.398
0	0.25	0.25	0.5	43.84	<b>45.10</b>	43.94	2.572
0	0.25	0.25	0.25	18.02	25.66	<b>25.90</b>	-0.935
0.1	0.2	0.6	1	<b>92.30</b>	83.70	81.76	2.318
0.25	0.25	0.5	0.5	25.78	<b>30.52</b>	30.24	0.917
0	0.1	0.3	0.7	<b>74.24</b>	66.98	64.84	3.195
0	0.05	0.15	0.35	30.92	<b>33.76</b>	33.48	0.829
0	0.15	0.2	0.5	45.62	<b>45.82</b>	44.74	2.357
0	0	0.1	0.6	<b>58.80</b>	54.94	53.46	2.694
0	0	0.05	0.3	24.12	<b>32.32</b>	32.04	0.866

**Table 164. Percentage of Rejection for K=5, Normal Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.94	5.30	<b>5.4</b>	-1.89
0.05	0.15	0.25	0.35	0.45	31.12	34.96	<b>35.82</b>	-2.46
0	0.025	0.075	0.175	0.375	26.92	29.40	<b>30.18</b>	-2.65
0	0	0	0	0.5	30.98	31.86	<b>32.74</b>	-2.76
0	0	0	0.125	0.25	17.64	18.52	<b>19.10</b>	-3.13
0	0	0.125	0.25	0.25	21.78	23.48	<b>24.18</b>	-2.98
0	0.05	0.05	0.3	0.3	24.96	27.82	<b>28.38</b>	-2.01
0.05	0.2	0.3	0.4	0.5	34.96	39.98	<b>40.80</b>	-2.05
0	0	0	0.25	0.5	41.98	43.50	<b>44.36</b>	-1.98
0	0	0	0.35	0.35	32.46	35.00	<b>35.76</b>	-2.17
0	0	0.25	0.25	0.5	42.26	45.30	<b>46.30</b>	-2.21
0	0.125	0.25	0.25	0.25	17.70	20.76	<b>21.28</b>	-2.50
0	0.125	0.125	0.125	0.25	14.32	15.94	<b>16.48</b>	-3.39
0.125	0.125	0.125	0.25	0.25	11.54	11.88	<b>12.18</b>	-2.53
0	0	0	0.1	0.3	20.06	20.94	<b>21.48</b>	-2.58
0	0	0	0.2	0.7	57.62	58.34	<b>59.36</b>	-1.75
0	0.1	0.1	0.6	0.6	62.16	66.04	<b>67.20</b>	-1.76
0	0.1	0.3	0.4	0.4	35.04	39.84	<b>40.60</b>	-1.91
0	0.05	0.2	0.4	0.4	37.20	41.34	<b>42.06</b>	-1.74

**Table 165. Percentage of Rejection for K=5, Normal Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.94	5.70	<b>5.94</b>	-4.21
0.05	0.15	0.25	0.35	0.45	31.12	32.02	<b>32.72</b>	-2.19
0	0.025	0.075	0.175	0.375	26.92	27.98	<b>28.70</b>	-2.57
0	0	0	0	0.5	<b>30.98</b>	30.08	30.94	-2.86
0	0	0	0.125	0.25	17.64	18.24	<b>18.76</b>	-2.85
0	0	0.125	0.25	0.25	21.78	23.12	<b>23.54</b>	-1.82
0	0.05	0.05	0.3	0.3	24.96	26.34	<b>26.94</b>	-2.28
0.05	0.2	0.3	0.4	0.5	34.96	36.50	<b>37.20</b>	-1.92
0	0	0	0.25	0.5	<b>41.98</b>	40.42	41.14	-1.78
0	0	0	0.35	0.35	32.46	32.54	<b>33.30</b>	-2.34
0	0	0.25	0.25	0.5	42.26	41.42	<b>42.52</b>	-2.66
0	0.125	0.25	0.25	0.25	17.70	19.88	<b>20.26</b>	-1.91
0	0.125	0.125	0.125	0.25	14.32	15.40	<b>16.00</b>	-3.90
0.125	0.125	0.125	0.25	0.25	11.54	12.10	<b>12.40</b>	-2.48
0	0	0	0.1	0.3	20.06	20.64	<b>21.22</b>	-2.81
0	0	0	0.2	0.7	<b>57.62</b>	53.38	54.40	-1.91
0	0.1	0.1	0.6	0.6	<b>62.16</b>	60.60	61.46	-1.42
0	0.1	0.3	0.4	0.4	35.04	36.42	<b>37.28</b>	-2.36
0	0.05	0.2	0.4	0.4	37.20	37.84	<b>38.64</b>	-2.11

**Table 166. Percentage of Rejection for K=5, Normal Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.96	<b>5.16</b>	5.08	1.55
0.05	0.15	0.25	0.35	0.45	48.52	47.28	<b>51.42</b>	-8.76
0	0.025	0.075	0.175	0.375	41.8	40.56	<b>44.04</b>	-8.58
0	0	0	0	0.5	47.86	43.74	<b>48.54</b>	-10.97
0	0	0	0.125	0.25	25.90	25.12	<b>26.98</b>	-7.40
0	0	0.125	0.25	0.25	33.14	32.24	<b>35.14</b>	-9.00
0	0.05	0.05	0.3	0.3	38.62	37.68	<b>41.26</b>	-9.50
0.05	0.2	0.3	0.4	0.5	54.42	53.78	<b>58.60</b>	-8.96
0	0	0	0.25	0.5	63.98	59.62	<b>64.42</b>	-8.05
0	0	0	0.35	0.35	51.26	47.92	<b>52.74</b>	-10.06
0	0	0.25	0.25	0.5	64.10	60.68	<b>65.94</b>	-8.67
0	0.125	0.25	0.25	0.25	26.10	27.42	<b>28.96</b>	-5.62
0	0.125	0.125	0.125	0.25	19.66	20.98	<b>21.76</b>	-3.72
0.125	0.125	0.125	0.25	0.25	14.42	14.60	<b>15.62</b>	-6.99
0	0	0	0.1	0.3	29.66	28.28	<b>31.16</b>	-10.18
0	0	0	0.2	0.7	81.52	76.10	<b>81.72</b>	-7.39
0	0.1	0.1	0.6	0.6	86.28	82.64	<b>86.84</b>	-5.08
0	0.1	0.3	0.4	0.4	54.74	53.98	<b>58.48</b>	-8.34
0	0.05	0.2	0.4	0.4	58.12	55.4	<b>60.56</b>	-9.31

**Table 167. Percentage of Rejection for K=5, Normal Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.96	<b>5.74</b>	5.42	5.57
0.05	0.15	0.25	0.35	0.45	48.52	43.76	<b>48.84</b>	-11.61
0	0.025	0.075	0.175	0.375	41.80	37.70	<b>41.94</b>	-11.25
0	0	0	0	0.5	<b>47.86</b>	41.56	46.16	-11.07
0	0	0	0.125	0.25	25.90	24.28	<b>26.04</b>	-7.25
0	0	0.125	0.25	0.25	33.14	30.72	<b>33.34</b>	-8.53
0	0.05	0.05	0.3	0.3	38.62	35.32	<b>38.84</b>	-9.97
0.05	0.2	0.3	0.4	0.5	54.42	49.82	<b>55.44</b>	-11.28
0	0	0	0.25	0.5	<b>63.98</b>	55.98	61.74	-10.29
0	0	0	0.35	0.35	<b>51.26</b>	45.32	50.38	-11.17
0	0	0.25	0.25	0.5	<b>64.10</b>	57.20	62.58	-9.41
0	0.125	0.25	0.25	0.25	26.10	25.98	<b>27.64</b>	-6.39
0	0.125	0.125	0.125	0.25	19.66	19.92	<b>21.14</b>	-6.12
0.125	0.125	0.125	0.25	0.25	14.42	14.68	<b>15.66</b>	-6.68
0	0	0	0.1	0.3	29.66	27.30	<b>29.98</b>	-9.82
0	0	0	0.2	0.7	<b>81.52</b>	72.16	78.82	-9.23
0	0.1	0.1	0.6	0.6	<b>86.28</b>	78.22	84.08	-7.49
0	0.1	0.3	0.4	0.4	54.74	49.78	<b>55.22</b>	-10.93
0	0.05	0.2	0.4	0.4	<b>58.12</b>	51.86	57.24	-10.37

**Table 168. Percentage of Rejection for K=5, Normal Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=n_4=n_5=5$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.92	<b>5.34</b>	5.24	1.87
0.05	0.15	0.25	0.35	0.45	55.58	54.24	<b>56.64</b>	-4.42
0	0.025	0.075	0.175	0.375	<b>48.12</b>	45.34	47.64	-5.07
0	0	0	0	0.5	<b>54.40</b>	50.68	52.84	-4.26
0	0	0	0.125	0.25	28.54	27.48	<b>28.76</b>	-4.66
0	0	0.125	0.25	0.25	36.92	36.42	<b>37.92</b>	-4.12
0	0.05	0.05	0.3	0.3	44.16	42.96	<b>44.58</b>	-3.77
0.05	0.2	0.3	0.4	0.5	62.44	61.70	<b>64.08</b>	-3.86
0	0	0	0.25	0.5	72.08	68.06	<b>70.96</b>	-4.26
0	0	0	0.35	0.35	<b>59.14</b>	55.14	57.86	-4.93
0	0	0.25	0.25	0.5	<b>72.08</b>	69.18	71.86	-3.87
0	0.125	0.25	0.25	0.25	28.74	30.56	<b>31.56</b>	-3.27
0	0.125	0.125	0.125	0.25	21.18	22.74	<b>23.46</b>	-3.17
0.125	0.125	0.125	0.25	0.25	15.48	15.96	<b>16.48</b>	-3.26
0	0	0	0.1	0.3	<b>33.76</b>	32.06	33.56	-4.68
0	0	0	0.2	0.7	<b>88.02</b>	84.22	86.50	-2.71
0	0.1	0.1	0.6	0.6	<b>92.00</b>	89.74	91.46	-1.92
0	0.1	0.3	0.4	0.4	61.96	61.56	<b>64.18</b>	-4.26
0	0.05	0.2	0.4	0.4	65.54	63.84	<b>66.54</b>	-4.23

**Table 169. Percentage of Rejection for K=5, Normal Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=n_4=n_5=5$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.92	<b>5.56</b>	5.46	1.80
0.05	0.15	0.25	0.35	0.45	55.58	49.50	52.4	-5.86
0	0.025	0.075	0.175	0.375	<b>48.12</b>	42.24	44.46	-5.26
0	0	0	0	0.5	<b>54.40</b>	46.60	50.00	-7.30
0	0	0	0.125	0.25	28.54	26.42	27.60	-4.47
0	0	0.125	0.25	0.25	36.92	34.04	36.06	-5.93
0	0.05	0.05	0.3	0.3	44.16	39.94	41.90	-4.91
0.05	0.2	0.3	0.4	0.5	62.44	56.96	59.86	-5.09
0	0	0	0.25	0.5	72.08	63.78	66.96	-4.99
0	0	0	0.35	0.35	<b>59.14</b>	51.24	54.30	-5.97
0	0	0.25	0.25	0.5	<b>72.08</b>	64.74	67.78	-4.70
0	0.125	0.25	0.25	0.25	28.74	28.56	<b>29.30</b>	-2.59
0	0.125	0.125	0.125	0.25	21.18	21.76	<b>22.72</b>	-4.41
0.125	0.125	0.125	0.25	0.25	15.48	15.94	<b>16.20</b>	-1.63
0	0	0	0.1	0.3	<b>33.76</b>	30.38	31.70	-4.34
0	0	0	0.2	0.7	<b>88.02</b>	80.56	83.24	-3.33
0	0.1	0.1	0.6	0.6	<b>92.00</b>	85.84	88.20	-2.75
0	0.1	0.3	0.4	0.4	61.96	56.94	59.92	-5.23
0	0.05	0.2	0.4	0.4	65.54	59.22	62.30	-5.20

**Table 170. Percentage of Rejection for K=5, Exponential Distribution, Block=16,  
 $n_1=8, n_2=n_3=n_4=n_5=4, \text{Variance}=0.25$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.28	5.66	<b>5.88</b>	-3.89
0.05	0.15	0.25	0.35	0.45	55.46	55.62	<b>56.62</b>	-1.80
0	0.025	0.075	0.175	0.375	47.90	47.34	<b>48.34</b>	-2.11
0	0	0	0	0.5	<b>48.56</b>	47.12	<b>48.42</b>	-2.76
0	0	0	0.125	0.25	30.54	29.86	<b>30.68</b>	-2.75
0	0	0.125	0.25	0.25	39.74	38.94	<b>39.86</b>	-2.36
0	0.05	0.05	0.3	0.3	45.34	45.34	<b>46.40</b>	-2.34
0.05	0.2	0.3	0.4	0.5	61.62	62.24	<b>63.34</b>	-1.77
0	0	0	0.25	0.5	<b>68.18</b>	65.90	<b>67.02</b>	-1.70
0	0	0	0.35	0.35	<b>56.98</b>	55.90	<b>56.72</b>	-1.47
0	0	0.25	0.25	0.5	68.64	68.46	<b>69.60</b>	-1.67
0	0.125	0.25	0.25	0.25	31.64	33.36	<b>34.10</b>	-2.22
0	0.125	0.125	0.125	0.25	23.92	25.08	<b>25.72</b>	-2.55
0.125	0.125	0.125	0.25	0.25	17.72	17.56	<b>17.98</b>	-2.39
0	0	0	0.1	0.3	<b>34.54</b>	33.38	<b>34.26</b>	-2.64
0	0	0	0.2	0.7	<b>81.42</b>	79.76	<b>80.78</b>	-1.28
0	0.1	0.1	0.6	0.6	86.96	86.60	<b>87.28</b>	-0.79
0	0.1	0.3	0.4	0.4	60.56	61.90	<b>62.84</b>	-1.52
0	0.05	0.2	0.4	0.4	63.72	63.78	<b>64.7</b>	-1.44

**Table 171. Percentage of Rejection for K=5, Exponential Distribution, Block=16,  
 $n_1=8, n_2=n_3=n_4=n_5=4, \text{Variance}=1$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.28	6.08	<b>6.18</b>	-1.64
0.05	0.15	0.25	0.35	0.45	<b>55.46</b>	49.76	50.72	-1.93
0	0.025	0.075	0.175	0.375	47.90	42.36	43.70	-3.16
0	0	0	0	0.5	<b>48.56</b>	42.60	43.62	-2.39
0	0	0	0.125	0.25	<b>30.54</b>	27.80	28.78	-3.53
0	0	0.125	0.25	0.25	<b>39.74</b>	35.22	36.38	-3.29
0	0.05	0.05	0.3	0.3	<b>45.34</b>	40.34	41.24	-2.23
0.05	0.2	0.3	0.4	0.5	61.62	55.48	56.60	-2.02
0	0	0	0.25	0.5	<b>68.18</b>	60.26	61.20	-1.56
0	0	0	0.35	0.35	<b>56.98</b>	50.40	51.54	-2.26
0	0	0.25	0.25	0.5	<b>68.64</b>	62.20	63.32	-1.80
0	0.125	0.25	0.25	0.25	<b>31.64</b>	30.14	31.04	-2.99
0	0.125	0.125	0.125	0.25	23.92	23.96	<b>24.58</b>	-2.59
0.125	0.125	0.125	0.25	0.25	17.72	17.24	<b>17.8</b>	-3.25
0	0	0	0.1	0.3	<b>34.54</b>	30.92	31.76	-2.72
0	0	0	0.2	0.7	<b>81.42</b>	73.26	74.12	-1.17
0	0.1	0.1	0.6	0.6	<b>86.96</b>	80.06	<b>81.04</b>	-1.22
0	0.1	0.3	0.4	0.4	<b>60.56</b>	54.94	55.98	-1.89
0	0.05	0.2	0.4	0.4	<b>63.72</b>	56.80	57.8	-1.76



**Table 172. Percentage of Rejection for K=5, Exponential Distribution, Block=32,  
 $n_1=8, n_2=n_3=n_4=n_5=4, \text{Variance}=0.25$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.60	<b>5.40</b>	5.06	6.30
0.05	0.15	0.25	0.35	0.45	<b>79.64</b>	73.18	78.98	-7.93
0	0.025	0.075	0.175	0.375	<b>72.26</b>	63.74	70.56	-10.70
0	0	0	0	0.5	<b>74.06</b>	64.62	71.58	-10.77
0	0	0	0.125	0.25	<b>47.22</b>	41.60	46.34	-11.39
0	0	0.125	0.25	0.25	<b>60.20</b>	53.62	58.92	-9.88
0	0.05	0.05	0.3	0.3	<b>68.12</b>	60.68	66.94	-10.32
0.05	0.2	0.3	0.4	0.5	84.88	79.74	<b>84.90</b>	-6.47
0	0	0	0.25	0.5	<b>90.72</b>	83.94	89.36	-6.46
0	0	0	0.35	0.35	<b>81.86</b>	73.54	79.74	-8.43
0	0	0.25	0.25	0.5	<b>91.02</b>	85.04	89.72	-5.50
0	0.125	0.25	0.25	0.25	47.52	44.92	<b>48.92</b>	-8.90
0	0.125	0.125	0.125	0.25	35.40	33.62	<b>36.32</b>	-8.03
0.125	0.125	0.125	0.25	0.25	24.48	23.38	<b>24.88</b>	-6.42
0	0	0	0.1	0.3	<b>53.72</b>	46.66	52.52	-12.56
0	0	0	0.2	0.7	<b>97.60</b>	94.00	96.72	-2.89
0	0.1	0.1	0.6	0.6	<b>98.78</b>	96.74	98.52	-1.84
0	0.1	0.3	0.4	0.4	84.62	79.20	<b>84.70</b>	-6.94
0	0.05	0.2	0.4	0.4	<b>86.98</b>	81.56	86.30	-5.81

**Table 173. Percentage of Rejection for K=5, Exponential Distribution, Block=32,  
 $n_1=8, n_2=n_3=n_4=n_5=4, \text{Variance}=1$**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.60	<b>6.16</b>	5.64	8.44
0.05	0.15	0.25	0.35	0.45	<b>79.64</b>	66.84	74.50	-11.46
0	0.025	0.075	0.175	0.375	<b>72.26</b>	59.32	66.78	-12.58
0	0	0	0	0.5	<b>74.06</b>	59.62	67.74	-13.62
0	0	0	0.125	0.25	<b>47.22</b>	39.42	43.84	-11.21
0	0	0.125	0.25	0.25	<b>60.20</b>	49.92	55.98	-12.14
0	0.05	0.05	0.3	0.3	<b>68.12</b>	56.54	63.26	-11.89
0.05	0.2	0.3	0.4	0.5	<b>84.88</b>	73.40	80.78	-10.05
0	0	0	0.25	0.5	<b>90.72</b>	78.64	85.84	-9.16
0	0	0	0.35	0.35	<b>81.86</b>	68.10	76.04	-11.66
0	0	0.25	0.25	0.5	<b>91.02</b>	79.70	86.32	-8.31
0	0.125	0.25	0.25	0.25	<b>47.52</b>	41.10	45.78	-11.39
0	0.125	0.125	0.125	0.25	<b>35.40</b>	31.12	34.76	-11.70
0.125	0.125	0.125	0.25	0.25	<b>24.48</b>	21.54	23.64	-9.75
0	0	0	0.1	0.3	<b>53.72</b>	44.26	49.92	-12.79
0	0	0	0.2	0.7	<b>97.60</b>	89.9	94.86	-5.52
0	0.1	0.1	0.6	0.6	<b>98.78</b>	94.04	97.26	-3.42
0	0.1	0.3	0.4	0.4	<b>84.62</b>	72.96	80.10	-9.79
0	0.05	0.2	0.4	0.4	<b>86.98</b>	75.48	82.36	-9.11

**Table 174. Percentage of Rejection for K=5, Exponential Distribution, Block=40,  
 $n_1=10, n_2=n_3=n_4=n_5=5$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.38	5.16	5.1	1.16
0.05	0.15	0.25	0.35	0.45	86.64	81.80	84.32	-3.08
0	0.025	0.075	0.175	0.375	80.08	72.82	76.06	-4.45
0	0	0	0	0.5	81.90	74.08	77.18	-4.18
0	0	0	0.125	0.25	54.96	47.64	50.50	-6.00
0	0	0.125	0.25	0.25	68.86	61.68	64.74	-4.96
0	0.05	0.05	0.3	0.3	76.70	69.72	72.98	-4.68
0.05	0.2	0.3	0.4	0.5	91.18	87.22	89.30	-2.38
0	0	0	0.25	0.5	95.34	91.22	92.92	-1.86
0	0	0	0.35	0.35	88.58	82.22	85.14	-3.55
0	0	0.25	0.25	0.5	95.64	91.86	93.58	-1.87
0	0.125	0.25	0.25	0.25	54.64	51.88	53.84	-3.78
0	0.125	0.125	0.125	0.25	40.92	37.98	40.16	-5.74
0.125	0.125	0.125	0.25	0.25	27.82	25.46	26.34	-3.46
0	0	0	0.1	0.3	62.40	54.50	57.24	-5.03
0	0	0	0.2	0.7	99.12	97.52	98.22	-0.72
0	0.1	0.1	0.6	0.6	99.52	98.76	99.24	-0.49
0	0.1	0.3	0.4	0.4	90.76	86.78	88.94	-2.49
0	0.05	0.2	0.4	0.4	92.88	88.60	90.44	-2.08

**Table 175. Percentage of Rejection for K=5, Exponential Distribution, Block=40,  
 $n_1=10, n_2=n_3=n_4=n_5=5$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.38	5.42	5.42	0
0.05	0.15	0.25	0.35	0.45	86.64	75.80	79.20	-4.49
0	0.025	0.075	0.175	0.375	80.08	67.48	71.24	-5.57
0	0	0	0	0.5	81.90	68.24	72.64	-6.45
0	0	0	0.125	0.25	54.96	43.44	46.56	-7.18
0	0	0.125	0.25	0.25	68.86	56.08	59.80	-6.63
0	0.05	0.05	0.3	0.3	76.70	63.96	68.1	-6.47
0.05	0.2	0.3	0.4	0.5	91.18	82.08	85.08	-3.65
0	0	0	0.25	0.5	95.34	87.06	89.66	-2.99
0	0	0	0.35	0.35	88.58	76.76	80.36	-4.69
0	0	0.25	0.25	0.5	95.64	87.94	90.40	-2.80
0	0.125	0.25	0.25	0.25	54.64	45.98	48.66	-5.83
0	0.125	0.125	0.125	0.25	40.92	34.52	36.60	-6.03
0.125	0.125	0.125	0.25	0.25	27.82	23.94	25.26	-5.51
0	0	0	0.1	0.3	62.40	49.96	53.36	-6.81
0	0	0	0.2	0.7	99.12	95.40	97.02	-1.70
0	0.1	0.1	0.6	0.6	99.52	97.56	98.54	-1.00
0	0.1	0.3	0.4	0.4	90.76	81.72	84.76	-3.72
0	0.05	0.2	0.4	0.4	92.88	83.86	86.94	-3.67

**Table 176. Percentage of Rejection for K=5, t-Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.12	6.58	6.70	-1.82
0.05	0.15	0.25	0.35	0.45	24.52	28.42	29.14	-2.53
0	0.025	0.075	0.175	0.375	21.64	24.60	25.10	-2.03
0	0	0	0	0.5	23.78	25.78	26.54	-2.95
0	0	0	0.125	0.25	14.98	16.88	17.12	-1.42
0	0	0.125	0.25	0.25	17.68	19.92	20.70	-3.92
0	0.05	0.05	0.3	0.3	20.30	22.78	23.54	-3.34
0.05	0.2	0.3	0.4	0.5	27.52	31.78	32.5	-2.27
0	0	0	0.25	0.5	31.46	34.48	35.02	-1.57
0	0	0	0.35	0.35	25.70	28.38	28.98	-2.11
0	0	0.25	0.25	0.5	32.14	35.62	36.22	-1.68
0	0.125	0.25	0.25	0.25	14.94	18.40	18.78	-2.07
0	0.125	0.125	0.125	0.25	12.20	15.42	15.62	-1.30
0.125	0.125	0.125	0.25	0.25	10.06	12.46	12.84	-3.05
0	0	0	0.1	0.3	16.88	18.44	19.00	-3.04
0	0	0	0.2	0.7	42.44	45.24	46.08	-1.86
0	0.1	0.1	0.6	0.6	46.90	51.16	51.96	-1.56
0	0.1	0.3	0.4	0.4	27.16	31.78	32.52	-2.33
0	0.05	0.2	0.4	0.4	28.78	32.72	33.18	-1.41

**Table 177. Percentage of Rejection for K=5, t-Distribution, Block=16,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.12	8.96	8.98	-0.22
0.05	0.15	0.25	0.35	0.45	24.52	29.68	30.04	-1.21
0	0.025	0.075	0.175	0.375	21.64	26.04	26.52	-1.84
0	0	0	0	0.5	23.78	27.56	28.02	-1.67
0	0	0	0.125	0.25	14.98	19.54	19.76	-1.13
0	0	0.125	0.25	0.25	17.68	22.32	22.82	-2.24
0	0.05	0.05	0.3	0.3	20.30	24.86	25.32	-1.85
0.05	0.2	0.3	0.4	0.5	27.52	32.62	33.36	-2.27
0	0	0	0.25	0.5	31.46	35.72	36.20	-1.34
0	0	0	0.35	0.35	25.70	30.02	30.64	-2.07
0	0	0.25	0.25	0.5	32.14	36.26	37.28	-2.81
0	0.125	0.25	0.25	0.25	14.94	20.42	20.70	-1.37
0	0.125	0.125	0.125	0.25	12.20	17.60	18.04	-2.50
0.125	0.125	0.125	0.25	0.25	10.06	15.20	15.52	-2.11
0	0	0	0.1	0.3	16.88	20.76	21.10	-1.64
0	0	0	0.2	0.7	42.44	45.60	46.12	-1.14
0	0.1	0.1	0.6	0.6	46.90	49.94	50.70	-1.52
0	0.1	0.3	0.4	0.4	27.16	32.80	33.32	-1.59
0	0.05	0.2	0.4	0.4	28.78	33.92	34.44	-1.53

**Table 178. Percentage of Rejection for K=5, t-Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.54	6.8	6.24	8.24
0.05	0.15	0.25	0.35	0.45	38.34	37.08	39.92	-7.66
0	0.025	0.075	0.175	0.375	33.44	31.30	33.78	-7.92
0	0	0	0	0.5	36.38	35.22	37.60	-6.76
0	0	0	0.125	0.25	21.10	21.06	21.92	-4.08
0	0	0.125	0.25	0.25	26.34	25.94	27.34	-5.40
0	0.05	0.05	0.3	0.3	30.68	29.76	31.60	-6.18
0.05	0.2	0.3	0.4	0.5	42.52	42.52	45.30	-6.54
0	0	0	0.25	0.5	48.88	46.36	50.30	-8.50
0	0	0	0.35	0.35	39.84	37.96	40.96	-7.90
0	0	0.25	0.25	0.5	48.84	47.52	51.40	-8.16
0	0.125	0.25	0.25	0.25	20.82	22.34	22.94	-2.69
0	0.125	0.125	0.125	0.25	16.78	17.88	18.14	-1.45
0.125	0.125	0.125	0.25	0.25	12.82	13.94	13.94	0.00
0	0	0	0.1	0.3	24.16	23.74	24.82	-4.55
0	0	0	0.2	0.7	65.56	60.80	66.60	-9.54
0	0.1	0.1	0.6	0.6	70.58	68.18	73.46	-7.74
0	0.1	0.3	0.4	0.4	42.26	42.5	45.68	-7.48
0	0.05	0.2	0.4	0.4	44.84	43.96	47.32	-7.64

**Table 179. Percentage of Rejection for K=5, t-Distribution, Block=32,  $n_1=8$ ,  $n_2=n_3=n_4=n_5=4$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	5.54	9.14	7.94	13.13
0.05	0.15	0.25	0.35	0.45	38.34	37.68	39.92	-5.94
0	0.025	0.075	0.175	0.375	33.44	32.92	34.56	-4.98
0	0	0	0	0.5	36.38	35.88	37.94	-5.74
0	0	0	0.125	0.25	21.10	23.50	23.10	1.70
0	0	0.125	0.25	0.25	26.34	28.14	28.84	-2.49
0	0.05	0.05	0.3	0.3	30.68	31.22	32.86	-5.25
0.05	0.2	0.3	0.4	0.5	42.52	41.74	44.60	-6.85
0	0	0	0.25	0.5	48.88	45.60	49.26	-8.03
0	0	0	0.35	0.35	39.84	38.64	41.06	-6.26
0	0	0.25	0.25	0.5	48.84	46.50	49.78	-7.05
0	0.125	0.25	0.25	0.25	20.82	24.82	23.76	4.27
0	0.125	0.125	0.125	0.25	16.78	20.42	19.68	3.62
0.125	0.125	0.125	0.25	0.25	12.82	16.22	15.42	4.93
0	0	0	0.1	0.3	24.16	25.76	26.06	-1.16
0	0	0	0.2	0.7	65.56	58.80	63.90	-8.67
0	0.1	0.1	0.6	0.6	70.58	63.74	69.84	-9.57
0	0.1	0.3	0.4	0.4	42.26	41.64	44.72	-7.40
0	0.05	0.2	0.4	0.4	44.84	43.10	46.40	-7.66

**Table 180. Percentage of Rejection for K=5, t-Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=n_4=n_5=5$ , Variance=0.25**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.92	<b>6.58</b>	6.32	3.95
0.05	0.15	0.25	0.35	0.45	42.40	<b>43.72</b>	44.76	-2.38
0	0.025	0.075	0.175	0.375	36.90	<b>37.38</b>	38.84	-3.91
0	0	0	0	0.5	<b>41.38</b>	40.56	41.88	-3.25
0	0	0	0.125	0.25	23.08	<b>24.12</b>	24.84	-2.99
0	0	0.125	0.25	0.25	29.18	<b>30.30</b>	30.86	-1.85
0	0.05	0.05	0.3	0.3	33.68	<b>34.58</b>	36.04	-4.22
0.05	0.2	0.3	0.4	0.5	48.28	<b>48.82</b>	50.42	-3.28
0	0	0	0.25	0.5	<b>56.14</b>	53.34	55.58	-4.20
0	0	0	0.35	0.35	<b>45.66</b>	43.90	45.28	-3.14
0	0	0.25	0.25	0.5	<b>56.74</b>	54.98	57.00	-3.67
0	0.125	0.25	0.25	0.25	22.58	<b>25.66</b>	26.28	-2.42
0	0.125	0.125	0.125	0.25	17.70	<b>20.42</b>	20.50	-0.39
0.125	0.125	0.125	0.25	0.25	13.54	<b>15.10</b>	15.32	-1.46
0	0	0	0.1	0.3	26.32	<b>27.20</b>	27.84	-2.35
0	0	0	0.2	0.7	<b>73.92</b>	68.8	71.52	-3.95
0	0.1	0.1	0.6	0.6	<b>78.76</b>	75.8	78.24	-3.22
0	0.1	0.3	0.4	0.4	48.74	<b>49.00</b>	50.28	-2.61
0	0.05	0.2	0.4	0.4	<b>51.42</b>	50.26	52.04	-3.54

**Table 181. Percentage of Rejection for K=5, t-Distribution, Block=40,  $n_1=10$ ,  $n_2=n_3=n_4=n_5=5$ , Variance=1**

$\mu_1$	$\mu_2$	$\mu_3$	$\mu_4$	$\mu_5$	Page (%)	Comb (%)	CombII (%)	D
0	0	0	0	0	4.92	<b>9.44</b>	8.66	8.26
0.05	0.15	0.25	0.35	0.45	42.40	<b>43.36</b>	44.72	-3.14
0	0.025	0.075	0.175	0.375	36.90	<b>38.38</b>	39.30	-2.40
0	0	0	0	0.5	41.38	<b>41.46</b>	42.04	-1.40
0	0	0	0.125	0.25	23.08	<b>27.10</b>	27.30	-0.74
0	0	0.125	0.25	0.25	29.18	<b>32.32</b>	32.78	-1.42
0	0.05	0.05	0.3	0.3	33.68	<b>36.46</b>	36.88	-1.15
0.05	0.2	0.3	0.4	0.5	48.28	47.64	49.22	-3.32
0	0	0	0.25	0.5	<b>56.14</b>	51.86	53.82	-3.78
0	0	0	0.35	0.35	<b>45.66</b>	44.22	45.80	-3.57
0	0	0.25	0.25	0.5	<b>56.74</b>	52.96	54.98	-3.81
0	0.125	0.25	0.25	0.25	22.58	<b>28.66</b>	28.66	0.00
0	0.125	0.125	0.125	0.25	17.70	<b>23.46</b>	23.42	0.17
0.125	0.125	0.125	0.25	0.25	13.54	<b>18.62</b>	18.28	1.83
0	0	0	0.1	0.3	26.32	<b>30.02</b>	30.18	-0.53
0	0	0	0.2	0.7	<b>73.92</b>	64.96	67.62	-4.09
0	0.1	0.1	0.6	0.6	<b>78.76</b>	70.12	73.28	-4.51
0	0.1	0.3	0.4	0.4	48.74	47.70	49.12	-2.98
0	0.05	0.2	0.4	0.4	<b>51.42</b>	49.48	51.22	-3.52

# CHAPTER 5

## CONCLUSIONS

The test with the highest rejection percentages overall in each table given in Chapter 4 is called the best test for the simulation. The best tests for each combination of number of blocks, type of underlying distributions, sample sizes and block variances for the completely randomized design portion are shown in Tables 182 and 183.

Table 182 gives the best tests for the equal sample size cases in the completely randomized design portion. Results are similar to those in Magel et al. (2009) when the completely randomized design portion had little to no blocking effect. For most of the equal cases, Comb is the best test. Page's test only emerges once as the best test. With the increasing variance of the block effect on the completely randomized design portion, the powers of the tests decreased, but the best test didn't change. Comb is still the best test for the most of the equal sample size cases.

**Table 182. The best tests for equal cases**

block	n	the best test					
		Variance = 0.25			Variance = 0.25		
		K=3	K=4	K=5	K=3	K=4	K=5
16	4	Comb	CombII	CombII	Comb	CombII	CombII
16	8	Comb	Comb	Comb	Comb	Comb	Comb
32	4	CombII	CombII	CombII	CombII	CombII	CombII
32	8	Comb	Comb	Comb	Comb	Comb	Comb
40	5	Page	CombII	CombII	Page	CombII	CombII
40	10	Comb	Comb	Comb	Comb	Comb	Comb
40	20	Comb	Comb	Comb	Comb	Comb	Comb

The data from Table 183 give the best tests for the unequal sample sizes in the completely randomized design portion. Results in this case are different from those of

Magel et al. (2009) for no block effect as given in Table 184. Our study indicates that adding a block factor changed the results significantly for  $K=4$  and  $K=5$  as the variance of the block effect increases from 0.25 to 1.

**Table 183. The best tests for unequal cases**

block	$n_1$	$n_2=n_3=n_4=n_5$ (if exists)	the best test					
			Variance = 0.25			Variance = 1		
			K=3	K=4	K=5	K=3	K=4	K=5
16	8	4	Comb	Comb	CombII	Comb	Page	Page
32	8	4	Comb	Page	CombII	Page	Page	Page
40	10	5	Comb	Page	Page	Page	Page	Page

**Table 184. The best tests for unequal cases with no block effect**

block	$n_1$	$n_2=n_3=n_4=n_5$ (if exists)	K=3	K=4	K=5
16	8	4	Comb	Comb	CombII
32	8	4	Comb	Undecidable	CombII
40	10	5	Comb	Comb	CombII

As shown in Table 183 and Table 184, when a block factor is added into the completely randomized design portion, the tests with the highest rejection percentage differ with those in Magel et al. (2009) for the unequal sample size case. This is especially true as the block variance increases and as the number of treatments increase.

Overall, for the equal sample size case, Comb is recommended as long as the variance of the block effect does not get too large, the sample size for the completely randomized design portion is at least 1/4 that of the randomized complete block design portion, and the number of blocks is reasonably large ( at least 30). Comb is also recommended in the unequal sample size case when there are 3 populations and the block variance is relatively small. As the number of populations increase and the block variance increases for other unequal sample size cases, the two tests for the mixed design generally do not do better than Page's test.

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- Hollander, M., Rank tests for randomized blocks when the alternatives have an a priori ordering. *The Annals of Mathematical Statistics*, 38 (1967), 867-877.
- Jockheere, A.R., On the power of Jockheere's k-sample test against ordered alternatives. *Biometrika*, 41 (1954), 133-145.
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# APPENDIX

## SAMPLE SAS CODE FOR THE SUMULATIOIN

```
%macro generate_Normal(samples, k, b, mu1, mu2, mu3, sigma1, sigma2,
sigma3,page,table);
title2 'normal Distribution K=' &k;
data page_Normal (keep=sample blk trt x);
array seeds{3} seed1-seed3 (1231 3422 3342 );
do sample=1 to &samples;
  do block=1 to &b;
    call rannor(seed1, z1);
    x=(&mu1)+((&sigma1)*z1); trt=1; blk=block; output; end;
  do block=1 to &b;
    call rannor(seed2, z2);
    x=(&mu2)+((&sigma2)*z2); trt=2; blk=block; output; end;
  do block=1 to &b;
    call rannor(seed3, z3);
    x=(&mu3)+((&sigma3)*z3); trt=3; blk=block; output; end;
end;run; proc sort data=page_Normal out=one_Normal;
  by sample blk;run;
proc rank data=one_Normal out=two_Normal ties=mean;
  by sample blk; var x;
  ranks trtrank;run;
data three_Normal; set two_Normal;
  Li=trt*trtrank;run;
proc sql;
  create table four_Normal as
  select sample, sum(Li) as L
  from three_Normal
  group by sample;quit;
title3 "power for page_Normal";
data &page; set four_Normal;
  z=(L-192)/sqrt(32);
  if z>=1.645 then p=0;
  else if z<1.645 then p=1;run;
proc freq data=&page ; table p/out=tablep noprint; run;
data &table;set tablep; keep percent obs;
  where p=0;run;
%mend generate_Normal;
%generate_Normal (5000, 3, 16, 0,0,0, 1, 1,1,page1,p1);
```

```

%macro generateJT_bnormal
(samples,k,nb,s1,mu1,mu2,mu3,sigma1,sigma2,sigma3,page,c1,c2);
data JT_bnormal (keep=sample block trt y);
  array seeds(4) seed1-seed4 (3551 1224 74563 3355 );
  do sample=1 to &samples;
  do block=1 to &nb;
  call rannor(seed4,z4); b1=z4*&s1;
call rannor(seed1,z1);y=(&mu1)+(&sigma1)*z1+b1;trt=1;output;
call rannor(seed2,z2);y=(&mu2)+(&sigma2)*z2+b1;trt=2; output;
call rannor(seed3,z3);y=(&mu3)+(&sigma3)*z3+b1; trt=3;output;
end;end;run;
proc freq data=jt_bnormal noprint;
by sample;
tables trt*y/jt noprint;
output out=JT_one_Normal (keep=sample _JT_Z_JT) jt; run;
proc sort data=JT_one_Normal;by sample;run;
proc sort data=&page;by sample;run;
data comb;
merge &page jt_one_normal;
keep sample L z Z_JT _JT_obs;run;
data comb;
set comb;
z1=(z+Z_JT)/sqrt(2);if z1>=1.645 then P_comb1=0;else if z1<1.645 then P_comb1=1;
z2= ((L+_JT_)-(192+24))/sqrt(32+46.67);
if z2>=1.645 then P_comb2=0;
else if z2<1.645 then P_comb2=1;run;run;
proc freq data=comb; table P_comb1/out=combone noprint; table
P_comb2/out=combtwo noprint;run;run;
data &c1;
set combone;
keep percent obs;
where p_comb1=0;run;
data &c2;
set combtwo;
keep percent obs;
where p_comb2=0;run;
%mend generateJT_bNormal;
%generateJT_bnormal(5000,3,4,0.5, 0,0,0,1,1,1,page1,combone1,combtwo1)

```