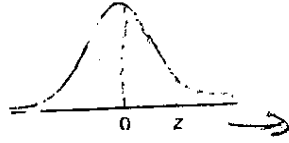


# الجدول (IV) : المساحة تحت المنحنى الطبيعي المعياري :

| Second decimal place in z |        |        |        |        |        |        |        |        |        |                     |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|
| z                         | 0.09   | 0.08   | 0.07   | 0.06   | 0.05   | 0.04   | 0.03   | 0.02   | 0.01   | 0.00                |
| -3.9                      |        |        |        |        |        |        |        |        |        | 0.0000 <sup>+</sup> |
| -3.8                      | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001              |
| -3.7                      | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001              |
| -3.6                      | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0002 | 0.0002              |
| -3.5                      | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002              |
| -3.4                      | 0.0002 | 0.0003 | 0.0003 | 0.0003 | 0.0003 | 0.0003 | 0.0003 | 0.0003 | 0.0003 | 0.0003              |
| -3.3                      | 0.0003 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0005 | 0.0005 | 0.0005              |
| -3.2                      | 0.0005 | 0.0005 | 0.0005 | 0.0006 | 0.0006 | 0.0006 | 0.0006 | 0.0006 | 0.0007 | 0.0007              |
| -3.1                      | 0.0007 | 0.0007 | 0.0008 | 0.0008 | 0.0008 | 0.0008 | 0.0009 | 0.0009 | 0.0009 | 0.0010              |
| -3.0                      | 0.0010 | 0.0010 | 0.0011 | 0.0011 | 0.0011 | 0.0012 | 0.0012 | 0.0013 | 0.0013 | 0.0013              |
| -2.9                      | 0.0014 | 0.0014 | 0.0015 | 0.0015 | 0.0016 | 0.0016 | 0.0017 | 0.0018 | 0.0018 | 0.0019              |
| -2.8                      | 0.0019 | 0.0020 | 0.0021 | 0.0021 | 0.0022 | 0.0023 | 0.0023 | 0.0024 | 0.0025 | 0.0026              |
| -2.7                      | 0.0026 | 0.0027 | 0.0028 | 0.0029 | 0.0030 | 0.0031 | 0.0032 | 0.0033 | 0.0034 | 0.0035              |
| -2.6                      | 0.0036 | 0.0037 | 0.0038 | 0.0039 | 0.0040 | 0.0041 | 0.0043 | 0.0044 | 0.0045 | 0.0047              |
| -2.5                      | 0.0048 | 0.0049 | 0.0051 | 0.0052 | 0.0054 | 0.0055 | 0.0057 | 0.0059 | 0.0060 | 0.0062              |
| -2.4                      | 0.0064 | 0.0066 | 0.0068 | 0.0069 | 0.0071 | 0.0073 | 0.0075 | 0.0078 | 0.0080 | 0.0082              |
| -2.3                      | 0.0084 | 0.0087 | 0.0089 | 0.0091 | 0.0094 | 0.0096 | 0.0099 | 0.0102 | 0.0104 | 0.0107              |
| -2.2                      | 0.0110 | 0.0113 | 0.0116 | 0.0119 | 0.0122 | 0.0125 | 0.0129 | 0.0132 | 0.0136 | 0.0139              |
| -2.1                      | 0.0143 | 0.0146 | 0.0150 | 0.0154 | 0.0158 | 0.0162 | 0.0166 | 0.0170 | 0.0174 | 0.0179              |
| -2.0                      | 0.0183 | 0.0188 | 0.0192 | 0.0197 | 0.0202 | 0.0207 | 0.0212 | 0.0217 | 0.0222 | 0.0228              |
| -1.9                      | 0.0233 | 0.0239 | 0.0244 | 0.0250 | 0.0256 | 0.0262 | 0.0268 | 0.0274 | 0.0281 | 0.0287              |
| -1.8                      | 0.0294 | 0.0301 | 0.0307 | 0.0314 | 0.0322 | 0.0329 | 0.0336 | 0.0344 | 0.0351 | 0.0359              |
| -1.7                      | 0.0367 | 0.0375 | 0.0384 | 0.0392 | 0.0401 | 0.0409 | 0.0418 | 0.0427 | 0.0436 | 0.0446              |
| -1.6                      | 0.0455 | 0.0465 | 0.0475 | 0.0485 | 0.0495 | 0.0505 | 0.0516 | 0.0526 | 0.0537 | 0.0548              |
| -1.5                      | 0.0559 | 0.0571 | 0.0582 | 0.0594 | 0.0606 | 0.0618 | 0.0630 | 0.0643 | 0.0655 | 0.0668              |
| -1.4                      | 0.0681 | 0.0694 | 0.0708 | 0.0721 | 0.0735 | 0.0749 | 0.0764 | 0.0778 | 0.0793 | 0.0808              |
| -1.3                      | 0.0823 | 0.0838 | 0.0853 | 0.0869 | 0.0885 | 0.0901 | 0.0918 | 0.0934 | 0.0951 | 0.0968              |
| -1.2                      | 0.0985 | 0.1003 | 0.1020 | 0.1038 | 0.1056 | 0.1075 | 0.1093 | 0.1112 | 0.1131 | 0.1151              |
| -1.1                      | 0.1170 | 0.1190 | 0.1210 | 0.1230 | 0.1251 | 0.1271 | 0.1292 | 0.1314 | 0.1335 | 0.1357              |
| -1.0                      | 0.1379 | 0.1401 | 0.1423 | 0.1446 | 0.1469 | 0.1492 | 0.1515 | 0.1539 | 0.1562 | 0.1587              |
| -0.9                      | 0.1611 | 0.1635 | 0.1660 | 0.1685 | 0.1711 | 0.1736 | 0.1762 | 0.1788 | 0.1814 | 0.1841              |
| -0.8                      | 0.1867 | 0.1894 | 0.1922 | 0.1949 | 0.1977 | 0.2005 | 0.2033 | 0.2061 | 0.2090 | 0.2119              |
| -0.7                      | 0.2148 | 0.2177 | 0.2206 | 0.2236 | 0.2266 | 0.2296 | 0.2327 | 0.2358 | 0.2389 | 0.2420              |
| -0.6                      | 0.2451 | 0.2483 | 0.2514 | 0.2546 | 0.2578 | 0.2611 | 0.2643 | 0.2676 | 0.2709 | 0.2743              |
| -0.5                      | 0.2776 | 0.2810 | 0.2843 | 0.2877 | 0.2912 | 0.2946 | 0.2981 | 0.3015 | 0.3050 | 0.3085              |
| -0.4                      | 0.3121 | 0.3156 | 0.3192 | 0.3228 | 0.3264 | 0.3300 | 0.3336 | 0.3372 | 0.3409 | 0.3446              |
| -0.3                      | 0.3483 | 0.3520 | 0.3557 | 0.3594 | 0.3632 | 0.3669 | 0.3707 | 0.3745 | 0.3783 | 0.3821              |
| -0.2                      | 0.3859 | 0.3897 | 0.3936 | 0.3974 | 0.4013 | 0.4052 | 0.4090 | 0.4129 | 0.4168 | 0.4207              |
| -0.1                      | 0.4247 | 0.4286 | 0.4325 | 0.4364 | 0.4404 | 0.4443 | 0.4483 | 0.4522 | 0.4562 | 0.4602              |
| -0.0                      | 0.4641 | 0.4681 | 0.4721 | 0.4761 | 0.4801 | 0.4840 | 0.4880 | 0.4920 | 0.4960 | 0.5000              |

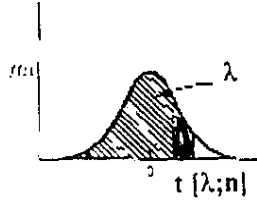


الجدول (IV) : المساحة تحت المنحنى الطبيعي المعياري.

| z   | Second decimal place in z |        |        |        |        |        |        |        |        |        |
|-----|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | 0.00                      | 0.01   | 0.02   | 0.03   | 0.04   | 0.05   | 0.06   | 0.07   | 0.08   | 0.09   |
| 0.0 | 0.5000                    | 0.5040 | 0.5080 | 0.5120 | 0.5160 | 0.5199 | 0.5239 | 0.5279 | 0.5319 | 0.5359 |
| 0.1 | 0.5398                    | 0.5438 | 0.5478 | 0.5517 | 0.5557 | 0.5596 | 0.5636 | 0.5675 | 0.5714 | 0.5753 |
| 0.2 | 0.5793                    | 0.5832 | 0.5871 | 0.5910 | 0.5948 | 0.5987 | 0.6026 | 0.6064 | 0.6103 | 0.6141 |
| 0.3 | 0.6179                    | 0.6217 | 0.6255 | 0.6293 | 0.6331 | 0.6368 | 0.6406 | 0.6443 | 0.6480 | 0.6517 |
| 0.4 | 0.6554                    | 0.6591 | 0.6628 | 0.6664 | 0.6700 | 0.6736 | 0.6772 | 0.6808 | 0.6844 | 0.6879 |
| 0.5 | 0.6915                    | 0.6950 | 0.6985 | 0.7019 | 0.7054 | 0.7088 | 0.7123 | 0.7157 | 0.7190 | 0.7224 |
| 0.6 | 0.7257                    | 0.7291 | 0.7324 | 0.7357 | 0.7389 | 0.7422 | 0.7454 | 0.7486 | 0.7517 | 0.7549 |
| 0.7 | 0.7580                    | 0.7611 | 0.7642 | 0.7673 | 0.7704 | 0.7734 | 0.7764 | 0.7794 | 0.7823 | 0.7852 |
| 0.8 | 0.7881                    | 0.7910 | 0.7939 | 0.7967 | 0.7995 | 0.8023 | 0.8051 | 0.8078 | 0.8106 | 0.8133 |
| 0.9 | 0.8159                    | 0.8186 | 0.8212 | 0.8238 | 0.8264 | 0.8289 | 0.8315 | 0.8340 | 0.8365 | 0.8389 |
| 1.0 | 0.8413                    | 0.8438 | 0.8461 | 0.8485 | 0.8508 | 0.8531 | 0.8554 | 0.8577 | 0.8599 | 0.8621 |
| 1.1 | 0.8643                    | 0.8665 | 0.8686 | 0.8708 | 0.8729 | 0.8749 | 0.8770 | 0.8790 | 0.8810 | 0.8830 |
| 1.2 | 0.8849                    | 0.8869 | 0.8888 | 0.8907 | 0.8925 | 0.8944 | 0.8962 | 0.8980 | 0.8997 | 0.9015 |
| 1.3 | 0.9032                    | 0.9049 | 0.9066 | 0.9082 | 0.9099 | 0.9115 | 0.9131 | 0.9147 | 0.9162 | 0.9177 |
| 1.4 | 0.9192                    | 0.9207 | 0.9222 | 0.9236 | 0.9251 | 0.9265 | 0.9279 | 0.9292 | 0.9306 | 0.9319 |
| 1.5 | 0.9332                    | 0.9345 | 0.9357 | 0.9370 | 0.9382 | 0.9394 | 0.9406 | 0.9418 | 0.9429 | 0.9441 |
| 1.6 | 0.9452                    | 0.9463 | 0.9474 | 0.9484 | 0.9495 | 0.9505 | 0.9515 | 0.9525 | 0.9535 | 0.9545 |
| 1.7 | 0.9554                    | 0.9564 | 0.9573 | 0.9582 | 0.9591 | 0.9599 | 0.9608 | 0.9616 | 0.9625 | 0.9633 |
| 1.8 | 0.9641                    | 0.9649 | 0.9656 | 0.9664 | 0.9671 | 0.9678 | 0.9686 | 0.9693 | 0.9699 | 0.9706 |
| 1.9 | 0.9713                    | 0.9719 | 0.9726 | 0.9732 | 0.9738 | 0.9744 | 0.9750 | 0.9756 | 0.9761 | 0.9767 |
| 2.0 | 0.9772                    | 0.9778 | 0.9783 | 0.9788 | 0.9793 | 0.9798 | 0.9803 | 0.9808 | 0.9812 | 0.9817 |
| 2.1 | 0.9821                    | 0.9826 | 0.9830 | 0.9834 | 0.9838 | 0.9842 | 0.9846 | 0.9850 | 0.9854 | 0.9857 |
| 2.2 | 0.9861                    | 0.9864 | 0.9868 | 0.9871 | 0.9875 | 0.9878 | 0.9881 | 0.9884 | 0.9887 | 0.9890 |
| 2.3 | 0.9893                    | 0.9896 | 0.9898 | 0.9901 | 0.9904 | 0.9906 | 0.9909 | 0.9911 | 0.9913 | 0.9916 |
| 2.4 | 0.9918                    | 0.9920 | 0.9922 | 0.9925 | 0.9927 | 0.9929 | 0.9931 | 0.9932 | 0.9934 | 0.9936 |
| 2.5 | 0.9938                    | 0.9940 | 0.9941 | 0.9943 | 0.9945 | 0.9946 | 0.9948 | 0.9949 | 0.9951 | 0.9952 |
| 2.6 | 0.9953                    | 0.9955 | 0.9956 | 0.9957 | 0.9959 | 0.9960 | 0.9961 | 0.9962 | 0.9963 | 0.9964 |
| 2.7 | 0.9965                    | 0.9966 | 0.9967 | 0.9968 | 0.9969 | 0.9970 | 0.9971 | 0.9972 | 0.9973 | 0.9974 |
| 2.8 | 0.9974                    | 0.9975 | 0.9976 | 0.9977 | 0.9977 | 0.9978 | 0.9979 | 0.9979 | 0.9980 | 0.9981 |
| 2.9 | 0.9981                    | 0.9982 | 0.9982 | 0.9983 | 0.9984 | 0.9984 | 0.9985 | 0.9985 | 0.9986 | 0.9986 |
| 3.0 | 0.9987                    | 0.9987 | 0.9987 | 0.9988 | 0.9988 | 0.9989 | 0.9989 | 0.9989 | 0.9990 | 0.9990 |
| 3.1 | 0.9990                    | 0.9991 | 0.9991 | 0.9991 | 0.9992 | 0.9992 | 0.9992 | 0.9992 | 0.9993 | 0.9993 |
| 3.2 | 0.9993                    | 0.9993 | 0.9994 | 0.9994 | 0.9994 | 0.9994 | 0.9994 | 0.9995 | 0.9995 | 0.9995 |
| 3.3 | 0.9995                    | 0.9995 | 0.9995 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9996 | 0.9997 |
| 3.4 | 0.9997                    | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9997 | 0.9998 |
| 3.5 | 0.9998                    | 0.9998 | 0.9998 | 0.9998 | 0.9998 | 0.9998 | 0.9998 | 0.9998 | 0.9998 | 0.9998 |
| 3.6 | 0.9998                    | 0.9998 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 |
| 3.7 | 0.9999                    | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 |
| 3.8 | 0.9999                    | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 |
| 3.9 | 1.0000 <sup>†</sup>       |        |        |        |        |        |        |        |        |        |

المساحة إلى يمين  $z=3.90$  هي تقريباً صفر.

الجدول (V) : يعطي القيم على المحور الأفقي  $t$  وهي  $t[\lambda; n]$  التي يكون إلى يسارها  $\lambda$  من المساحة تحت توزيع  $t$  ذي درجات الحرية  $n$ .

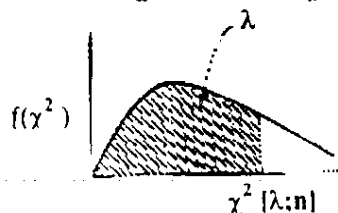


Probability ( $p$ )

| $df$ | .75   | .90   | .95   | .975   | .99    | .995   | .999   |
|------|-------|-------|-------|--------|--------|--------|--------|
| 1    | 1.000 | 3.078 | 6.314 | 12.706 | 31.821 | 63.657 | 318.31 |
| 2    | .816  | 1.886 | 2.920 | 4.303  | 6.965  | 9.925  | 22.326 |
| 3    | .765  | 1.638 | 2.353 | 3.182  | 4.541  | 5.841  | 10.213 |
| 4    | .741  | 1.533 | 2.132 | 2.776  | 3.747  | 4.604  | 7.173  |
| 5    | .727  | 1.476 | 2.015 | 2.571  | 3.365  | 4.032  | 5.893  |
| 6    | .718  | 1.440 | 1.943 | 2.447  | 3.143  | 3.707  | 5.208  |
| 7    | .711  | 1.415 | 1.895 | 2.365  | 2.998  | 3.499  | 4.785  |
| 8    | .706  | 1.397 | 1.860 | 2.306  | 2.896  | 3.355  | 4.501  |
| 9    | .703  | 1.383 | 1.833 | 2.262  | 2.821  | 3.250  | 4.297  |
| 10   | .700  | 1.372 | 1.812 | 2.228  | 2.764  | 3.169  | 4.144  |
| 11   | .697  | 1.363 | 1.796 | 2.201  | 2.718  | 3.106  | 4.025  |
| 12   | .695  | 1.356 | 1.782 | 2.179  | 2.681  | 3.055  | 3.930  |
| 13   | .694  | 1.350 | 1.771 | 2.160  | 2.650  | 3.012  | 3.852  |
| 14   | .692  | 1.345 | 1.761 | 2.145  | 2.624  | 2.977  | 3.787  |
| 15   | .691  | 1.341 | 1.753 | 2.131  | 2.602  | 2.947  | 3.733  |
| 16   | .690  | 1.337 | 1.746 | 2.120  | 2.583  | 2.921  | 3.686  |
| 17   | .689  | 1.333 | 1.740 | 2.110  | 2.567  | 2.898  | 3.646  |
| 18   | .688  | 1.330 | 1.734 | 2.101  | 2.552  | 2.878  | 3.610  |

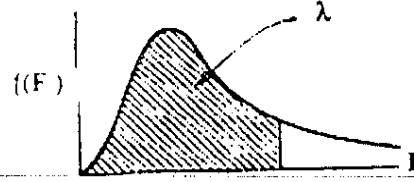
درجات الحرية

الجدول (VI) : يعطي القيم على المحور الأفقي  $\chi^2$  وهي  $\chi^2 [\lambda ; n]$  التي يكون إلى يسارها  $\lambda$  من المساحة تحت منحنى توزيع  $\chi^2$  ذي درجات الحرية  $n$ .



| df | Probability (p) |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|    | .01             | .02    | .05    | .10    | .20    | .30    | .50    | .70    | .80    | .90    | .95    | .98    | .99    | .999   |
| 1  | 0.0157          | 0.0262 | 0.0393 | 0.058  | 0.0842 | 0.148  | 0.455  | 1.074  | 1.642  | 2.706  | 3.841  | 5.412  | 6.635  | 10.827 |
| 2  | 0.0201          | 0.0404 | 0.103  | 0.211  | 0.446  | 0.713  | 1.386  | 2.408  | 3.219  | 4.605  | 5.991  | 7.824  | 9.210  | 13.815 |
| 3  | 0.115           | 0.185  | 0.352  | 0.584  | 1.005  | 1.424  | 2.366  | 3.665  | 4.642  | 6.251  | 7.815  | 9.837  | 11.341 | 16.268 |
| 4  | 0.297           | 0.429  | 0.711  | 1.064  | 1.549  | 2.195  | 3.357  | 4.878  | 5.989  | 7.779  | 9.488  | 11.668 | 13.277 | 18.465 |
| 5  | 0.554           | 0.752  | 1.145  | 1.610  | 2.343  | 3.000  | 4.351  | 6.064  | 7.289  | 9.236  | 11.070 | 13.388 | 15.086 | 20.517 |
| 6  | 0.872           | 1.134  | 1.635  | 2.204  | 3.070  | 3.828  | 5.348  | 7.231  | 8.558  | 10.645 | 12.592 | 15.033 | 16.812 | 22.457 |
| 7  | 1.239           | 1.564  | 2.167  | 2.833  | 3.822  | 4.671  | 6.346  | 8.383  | 9.803  | 12.017 | 14.067 | 16.622 | 18.475 | 24.322 |
| 8  | 1.646           | 2.032  | 2.733  | 3.490  | 4.594  | 5.527  | 7.344  | 9.524  | 11.030 | 13.362 | 15.507 | 18.168 | 20.090 | 26.125 |
| 9  | 2.088           | 2.532  | 3.325  | 4.168  | 5.380  | 6.393  | 8.343  | 10.656 | 12.242 | 14.684 | 16.919 | 19.679 | 21.666 | 27.877 |
| 10 | 2.558           | 3.059  | 3.940  | 4.865  | 6.179  | 7.267  | 9.342  | 11.781 | 13.442 | 15.987 | 18.307 | 21.161 | 23.209 | 29.588 |
| 11 | 3.053           | 3.609  | 4.575  | 5.578  | 6.989  | 8.148  | 10.341 | 12.899 | 14.631 | 17.275 | 19.675 | 22.618 | 24.725 | 31.264 |
| 12 | 3.571           | 4.178  | 5.226  | 6.304  | 7.807  | 9.034  | 11.340 | 14.011 | 15.812 | 18.549 | 21.026 | 24.054 | 26.217 | 32.909 |
| 13 | 4.107           | 4.765  | 5.892  | 7.042  | 8.634  | 9.926  | 12.340 | 15.119 | 16.985 | 19.812 | 22.362 | 25.472 | 27.688 | 34.528 |
| 14 | 4.660           | 5.368  | 6.571  | 7.790  | 9.467  | 10.821 | 13.339 | 16.222 | 18.151 | 21.064 | 23.685 | 26.873 | 29.141 | 36.123 |
| 15 | 5.229           | 5.985  | 7.261  | 8.547  | 10.307 | 11.721 | 14.339 | 17.322 | 19.311 | 22.307 | 24.996 | 28.259 | 30.578 | 37.697 |
| 16 | 5.812           | 6.614  | 7.962  | 9.312  | 11.152 | 12.624 | 15.338 | 18.418 | 20.465 | 23.542 | 26.296 | 29.633 | 32.000 | 39.252 |
| 17 | 6.408           | 7.255  | 8.672  | 10.085 | 12.002 | 13.531 | 16.338 | 19.511 | 21.615 | 24.769 | 27.587 | 30.995 | 33.409 | 40.790 |
| 18 | 7.015           | 7.906  | 9.390  | 10.865 | 12.857 | 14.440 | 17.338 | 20.601 | 22.760 | 25.989 | 28.869 | 32.346 | 34.805 | 42.312 |
| 19 | 7.633           | 8.567  | 10.117 | 11.651 | 13.716 | 15.352 | 18.338 | 21.689 | 23.900 | 27.204 | 30.144 | 33.687 | 36.191 | 43.820 |
| 20 | 8.260           | 9.237  | 10.851 | 12.443 | 14.578 | 16.266 | 19.337 | 22.775 | 25.038 | 28.412 | 31.410 | 35.020 | 37.566 | 45.315 |
| 21 | 8.897           | 9.915  | 11.591 | 13.240 | 15.445 | 17.182 | 20.337 | 23.858 | 26.171 | 29.615 | 32.671 | 36.343 | 38.932 | 46.797 |
| 22 | 9.542           | 10.600 | 12.338 | 14.041 | 16.314 | 18.101 | 21.337 | 24.939 | 27.301 | 30.813 | 33.924 | 37.659 | 40.289 | 48.268 |
| 23 | 10.196          | 11.293 | 13.091 | 14.848 | 17.187 | 19.021 | 22.337 | 26.018 | 28.429 | 32.007 | 35.172 | 38.968 | 41.638 | 49.728 |

الجدول (VII) : يعطي القيم على المحور الأفقي  $F$  أي  $F[\lambda; n_1, n_2]$  التي يكون إلى يسارها  $\lambda$  من المساحة تحت منحنى توزيع  $F$  ذي  $n_1$  درجات حرية في البسط،  $n_2$  درجات حرية في المقام.



$F[\lambda; n_1, n_2]$

1. PROBABILITY LEVEL  $p = .95$

| $n_1 \backslash n_2$ | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 10    | 20    | $\infty$ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1                    | 161.4 | 199.5 | 215.7 | 224.6 | 230.2 | 234.0 | 236.8 | 238.9 | 241.9 | 248.0 | 254.00   |
| 2                    | 18.51 | 19.00 | 19.16 | 19.25 | 19.30 | 19.33 | 19.35 | 19.37 | 19.40 | 19.45 | 19.50    |
| 3                    | 10.13 | 9.55  | 9.28  | 9.12  | 9.01  | 8.94  | 8.89  | 8.85  | 8.79  | 8.66  | 8.53     |
| 4                    | 7.71  | 6.94  | 6.59  | 6.39  | 6.26  | 6.16  | 6.09  | 6.04  | 5.96  | 5.80  | 5.63     |
| 5                    | 6.61  | 5.79  | 5.41  | 5.19  | 5.05  | 4.95  | 4.88  | 4.82  | 4.74  | 4.56  | 4.36     |
| 6                    | 5.99  | 5.14  | 4.76  | 4.53  | 4.39  | 4.28  | 4.21  | 4.15  | 4.06  | 3.87  | 3.67     |
| 7                    | 5.59  | 4.74  | 4.35  | 4.12  | 3.97  | 3.87  | 3.79  | 3.73  | 3.64  | 3.44  | 3.23     |
| 8                    | 5.32  | 4.46  | 4.07  | 3.84  | 3.69  | 3.58  | 3.50  | 3.44  | 3.35  | 3.15  | 2.93     |
| 9                    | 5.12  | 4.26  | 3.86  | 3.63  | 3.48  | 3.37  | 3.29  | 3.23  | 3.14  | 2.94  | 2.71     |
| 10                   | 4.96  | 4.10  | 3.71  | 3.48  | 3.33  | 3.22  | 3.14  | 3.07  | 2.98  | 2.77  | 2.54     |
| 11                   | 4.84  | 3.98  | 3.59  | 3.36  | 3.20  | 3.09  | 3.01  | 2.95  | 2.85  | 2.65  | 2.40     |
| 12                   | 4.76  | 3.89  | 3.49  | 3.26  | 3.11  | 3.00  | 2.91  | 2.85  | 2.75  | 2.54  | 2.30     |
| 13                   | 4.67  | 3.81  | 3.41  | 3.18  | 3.03  | 2.92  | 2.83  | 2.77  | 2.67  | 2.46  | 2.21     |
| 14                   | 4.60  | 3.74  | 3.34  | 3.11  | 2.96  | 2.85  | 2.76  | 2.70  | 2.60  | 2.39  | 2.13     |

تكملة جدول (VII)

2. PROBABILITY LEVEL  $\lambda = 0.975$

| $n_2 \backslash n_1$ | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 20    | $\infty$ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1                    | 647.8 | 799.5 | 864.2 | 899.6 | 921.8 | 937.1 | 948.2 | 956.7 | 963.3 | 968.6 | 993.1 | 1013     |
| 2                    | 38.51 | 39.00 | 39.17 | 39.25 | 39.30 | 39.33 | 39.36 | 39.37 | 39.39 | 39.40 | 39.45 | 39.50    |
| 3                    | 17.44 | 16.04 | 15.44 | 15.10 | 14.88 | 14.73 | 14.62 | 14.54 | 14.47 | 14.42 | 14.17 | 13.90    |
| 4                    | 12.22 | 10.65 | 9.98  | 9.60  | 9.36  | 9.20  | 9.07  | 8.98  | 8.90  | 8.84  | 8.56  | 8.26     |
| 5                    | 10.01 | 8.43  | 7.76  | 7.39  | 7.15  | 6.98  | 6.85  | 6.76  | 6.68  | 6.62  | 6.33  | 6.02     |
| 6                    | 8.81  | 7.26  | 6.60  | 6.23  | 5.99  | 5.82  | 5.70  | 5.60  | 5.52  | 5.46  | 5.17  | 4.85     |
| 7                    | 8.07  | 6.54  | 5.89  | 5.52  | 5.29  | 5.12  | 4.99  | 4.90  | 4.82  | 4.76  | 4.47  | 4.14     |
| 8                    | 7.57  | 6.06  | 5.42  | 5.05  | 4.82  | 4.65  | 4.53  | 4.43  | 4.36  | 4.30  | 4.00  | 3.67     |
| 9                    | 7.21  | 5.71  | 5.08  | 4.72  | 4.48  | 4.32  | 4.20  | 4.10  | 4.03  | 3.96  | 3.67  | 3.33     |
| 10                   | 6.94  | 5.46  | 4.83  | 4.47  | 4.24  | 4.07  | 3.95  | 3.85  | 3.78  | 3.72  | 3.42  | 3.08     |
| 11                   | 6.72  | 5.26  | 4.63  | 4.28  | 4.04  | 3.88  | 3.76  | 3.66  | 3.59  | 3.53  | 3.23  | 2.88     |
| 12                   | 6.55  | 5.10  | 4.47  | 4.12  | 3.89  | 3.73  | 3.61  | 3.51  | 3.44  | 3.37  | 3.07  | 2.72     |
| 13                   | 6.41  | 4.97  | 4.35  | 4.00  | 3.77  | 3.60  | 3.48  | 3.39  | 3.31  | 3.25  | 2.95  | 2.60     |
| 14                   | 6.30  | 4.86  | 4.24  | 3.89  | 3.66  | 3.50  | 3.38  | 3.29  | 3.21  | 3.15  | 2.84  | 2.49     |
| 15                   | 6.20  | 4.77  | 4.15  | 3.80  | 3.58  | 3.41  | 3.29  | 3.20  | 3.12  | 3.06  | 2.76  | 2.40     |
| 16                   | 6.12  | 4.69  | 4.08  | 3.73  | 3.50  | 3.34  | 3.22  | 3.12  | 3.05  | 2.99  | 2.68  | 2.32     |
| 17                   | 6.04  | 4.62  | 4.01  | 3.66  | 3.44  | 3.29  | 3.16  | 3.06  | 2.98  | 2.92  | 2.62  | 2.25     |
| 18                   | 5.98  | 4.56  | 3.95  | 3.61  | 3.38  | 3.22  | 3.10  | 3.01  | 2.93  | 2.87  | 2.56  | 2.19     |
| 19                   | 5.92  | 4.51  | 3.90  | 3.56  | 3.33  | 3.17  | 3.05  | 2.96  | 2.88  | 2.82  | 2.51  | 2.13     |
| 20                   | 5.87  | 4.46  | 3.86  | 3.51  | 3.29  | 3.13  | 3.01  | 2.91  | 2.84  | 2.77  | 2.46  | 2.09     |
| 21                   | 5.83  | 4.42  | 3.82  | 3.48  | 3.25  | 3.09  | 2.97  | 2.87  | 2.80  | 2.73  | 2.42  | 2.04     |
| 22                   | 5.79  | 4.38  | 3.78  | 3.44  | 3.22  | 3.05  | 2.93  | 2.84  | 2.76  | 2.70  | 2.39  | 2.00     |
| 23                   | 5.75  | 4.35  | 3.75  | 3.41  | 3.18  | 3.02  | 2.90  | 2.81  | 2.73  | 2.67  | 2.36  | 1.97     |
| 24                   | 5.72  | 4.32  | 3.72  | 3.38  | 3.15  | 2.99  | 2.87  | 2.78  | 2.70  | 2.64  | 2.33  | 1.94     |
| 25                   | 5.69  | 4.29  | 3.69  | 3.35  | 3.13  | 2.97  | 2.85  | 2.75  | 2.68  | 2.61  | 2.30  | 1.91     |
| 26                   | 5.66  | 4.27  | 3.67  | 3.33  | 3.10  | 2.94  | 2.82  | 2.73  | 2.65  | 2.59  | 2.28  | 1.88     |
| 27                   | 5.63  | 4.24  | 3.65  | 3.31  | 3.08  | 2.92  | 2.80  | 2.71  | 2.63  | 2.57  | 2.25  | 1.85     |
| 28                   | 5.61  | 4.22  | 3.63  | 3.29  | 3.06  | 2.90  | 2.78  | 2.69  | 2.61  | 2.55  | 2.23  | 1.83     |
| 29                   | 5.59  | 4.20  | 3.61  | 3.27  | 3.04  | 2.88  | 2.76  | 2.67  | 2.59  | 2.53  | 2.21  | 1.81     |
| 30                   | 5.57  | 4.18  | 3.59  | 3.25  | 3.02  | 2.87  | 2.75  | 2.65  | 2.57  | 2.51  | 2.20  | 1.79     |

2. PROBABILITY LEVEL  $\lambda = 0.99$

| $n_1 \backslash n_2$ | 1     | 2      | 3     | 4     | 5     | 6     | 7     | 8     | 10    | 20    | $\infty$ |
|----------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1                    | 4052  | 4999.5 | 5403  | 5625  | 5764  | 5859  | 5928  | 5981  | 6056  | 6209  | 6366     |
| 2                    | 98.50 | 99.00  | 99.17 | 99.25 | 99.30 | 99.33 | 99.36 | 99.37 | 99.40 | 99.45 | 99.50    |
| 3                    | 34.12 | 30.82  | 29.46 | 28.71 | 28.24 | 27.91 | 27.67 | 27.49 | 27.23 | 26.69 | 26.12    |
| 4                    | 21.20 | 18.00  | 16.69 | 15.98 | 15.52 | 15.21 | 14.98 | 14.80 | 14.55 | 14.02 | 13.46    |
| 5                    | 16.26 | 13.27  | 12.06 | 11.39 | 10.97 | 10.67 | 10.46 | 10.29 | 10.05 | 9.55  | 9.02     |
| 6                    | 13.75 | 10.92  | 9.78  | 9.15  | 8.75  | 8.47  | 8.26  | 8.10  | 7.87  | 7.40  | 6.88     |
| 7                    | 12.25 | 9.55   | 8.45  | 7.85  | 7.46  | 7.19  | 6.99  | 6.84  | 6.62  | 6.16  | 5.65     |
| 8                    | 11.26 | 8.65   | 7.59  | 7.01  | 6.63  | 6.37  | 6.18  | 6.03  | 5.81  | 5.36  | 4.86     |
| 9                    | 10.56 | 8.02   | 6.99  | 6.42  | 6.06  | 5.80  | 5.61  | 5.47  | 5.26  | 4.81  | 4.31     |
| 10                   | 10.04 | 7.56   | 6.55  | 5.99  | 5.64  | 5.39  | 5.20  | 5.06  | 4.85  | 4.41  | 3.91     |
| 11                   | 9.65  | 7.21   | 6.22  | 5.67  | 5.32  | 5.07  | 4.89  | 4.74  | 4.54  | 4.10  | 3.60     |
| 12                   | 9.33  | 6.93   | 5.95  | 5.41  | 5.06  | 4.82  | 4.64  | 4.50  | 4.30  | 3.86  | 3.36     |
| 13                   | 9.07  | 6.70   | 5.74  | 5.21  | 4.86  | 4.62  | 4.44  | 4.30  | 4.10  | 3.66  | 3.16     |
| 14                   | 8.86  | 6.51   | 5.56  | 5.04  | 4.69  | 4.46  | 4.28  | 4.14  | 3.94  | 3.51  | 3.00     |
| 15                   | 8.68  | 6.36   | 5.42  | 4.89  | 4.56  | 4.32  | 4.14  | 4.00  | 3.80  | 3.37  | 2.87     |
| 16                   | 8.53  | 6.23   | 5.29  | 4.77  | 4.44  | 4.20  | 4.03  | 3.89  | 3.69  | 3.26  | 2.75     |
| 17                   | 8.40  | 6.11   | 5.18  | 4.67  | 4.34  | 4.10  | 3.93  | 3.79  | 3.59  | 3.16  | 2.65     |
| 18                   | 8.29  | 6.01   | 5.09  | 4.58  | 4.25  | 4.01  | 3.84  | 3.71  | 3.51  | 3.08  | 2.57     |
| 19                   | 8.18  | 5.93   | 5.01  | 4.50  | 4.17  | 3.94  | 3.77  | 3.63  | 3.43  | 3.00  | 2.49     |
| 20                   | 8.10  | 5.85   | 4.94  | 4.43  | 4.10  | 3.87  | 3.70  | 3.56  | 3.37  | 2.94  | 2.42     |
| 21                   | 8.02  | 5.78   | 4.87  | 4.37  | 4.04  | 3.81  | 3.64  | 3.51  | 3.31  | 2.88  | 2.36     |
| 22                   | 7.95  | 5.72   | 4.82  | 4.31  | 3.99  | 3.76  | 3.59  | 3.45  | 3.26  | 2.83  | 2.31     |
| 23                   | 7.88  | 5.66   | 4.76  | 4.26  | 3.94  | 3.71  | 3.54  | 3.41  | 3.21  | 2.78  | 2.26     |
| 24                   | 7.82  | 5.61   | 4.72  | 4.22  | 3.90  | 3.67  | 3.50  | 3.36  | 3.17  | 2.74  | 2.21     |
| 25                   | 7.77  | 5.57   | 4.68  | 4.18  | 3.85  | 3.63  | 3.46  | 3.32  | 3.13  | 2.70  | 2.17     |
| 26                   | 7.72  | 5.53   | 4.64  | 4.14  | 3.82  | 3.59  | 3.42  | 3.29  | 3.09  | 2.66  | 2.13     |
| 27                   | 7.68  | 5.49   | 4.60  | 4.11  | 3.78  | 3.56  | 3.39  | 3.26  | 3.06  | 2.63  | 2.10     |
| 28                   | 7.64  | 5.45   | 4.57  | 4.07  | 3.75  | 3.53  | 3.36  | 3.23  | 3.03  | 2.60  | 2.06     |
| 29                   | 7.60  | 5.42   | 4.54  | 4.04  | 3.73  | 3.50  | 3.33  | 3.20  | 3.00  | 2.57  | 2.03     |
| 30                   | 7.56  | 5.39   | 4.51  | 4.02  | 3.70  | 3.47  | 3.30  | 3.17  | 2.98  | 2.55  | 2.01     |
| 40                   | 7.31  | 5.18   | 4.31  | 3.83  | 3.51  | 3.29  | 3.12  | 2.99  | 2.80  | 2.37  | 1.81     |
| 60                   | 7.08  | 4.98   | 4.13  | 3.65  | 3.34  | 3.12  | 2.95  | 2.82  | 2.63  | 2.20  | 1.60     |
| 120                  | 6.85  | 4.79   | 3.95  | 3.48  | 3.17  | 2.96  | 2.79  | 2.66  | 2.47  | 2.03  | 1.38     |
| $\infty$             | 6.63  | 4.61   | 3.78  | 3.32  | 3.02  | 2.80  | 2.64  | 2.51  | 2.32  | 1.88  | 1.00     |