

# JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## EDU 802: MEASUREMENT AND EVALUATION

### FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF EDUCATION IN GUIDANCE AND COUNSELLING.

#### Instructions

Answer any **THREE** questions.

1. (a). What is measurement? Explain the levels of measurement. **(10 Marks)**.  
(b). Outline five functions of evaluation. **(10 Marks)**.
2. Validity and reliability are important qualities of a test that should be considered when constructing/selecting a test in social sciences. How would you ascertain these qualities? **(20 Marks)**.
3. (a) What is Item analysis? Clearly elaborate the procedure you would use to ascertain item analysis in a norm referenced test. **(10 Marks)**  
(b). Essay testing is largely subjective. Explain 5 ways through which you can enhance objectivity while scoring essay tests. **(10 marks)**.
4. Explain the three domains of educational objectives as outlined by Benjamin Bloom. **(20 marks)**
5. (a) The following are the scores of 40 psychology students in research methods examination. Use the information to answer the questions below;  
**42, 88, 37, 75, 98, 90, 73, 62, 96, 80, 52, 76, 66, 54, 73, 69, 83, 62, 50, 79, 69, 56, 81, 70, 52, 65, 49, 80, 67, 59, 88, 80, 44, 71, 72, 87, 91, 82, 89, 79.**
  - (i) Using a class interval of 5, prepare a cumulative frequency distribution table. **(4 marks)**
  - (ii). Construct a histogram and a frequency polygon. Comment on the skewness of the students' performance. **(6 marks)**
- (b). The scores in a psychology class were normally distributed with a mean of 76 and a standard deviation of 12.
  - (i) Compute the Z score for the score of 70 on the test.

- (ii) Compute the Z score for the score 94 on the test.
- (iii) Compute the proportion of Scores in the distribution fall between 70 and 94.
- (iv) If the total number of scores (N) is 50 how many scores below 70?
- (v) If the total number of scores (N) was 150, how many scores lie between 70 and 94

(10 marks)

*Appendix: Table of Area of Unit of Normal Distribution*

TABLE OF AREAS OF UNIT OF NORMAL DISTRIBUTION

Z	Area	Z	Area
-3.00	0013	0.00	5000
-2.95	0016	0.05	5199
-2.90	0019	0.10	5398
-2.85	0022	0.15	5596
-2.80	0026	0.20	5793
-2.75	0030	0.25	5987
-2.70	0035	0.30	6179
-2.65	0040	0.35	6368
-2.60	0047	0.40	6554
-2.55	0054	0.45	6736
-2.50	0062	0.50	6915
-2.40	0082	0.55	7088
-2.35	0094	0.60	7257
-2.30	0107	0.65	7422
-2.25	0122	0.70	7580
-2.21	0136	0.75	7734
-2.20	0139	0.80	7881
-2.15	0158	0.81	7910
-2.00	0228	0.84	7995
-1.95	0256	0.85	8023
-1.90	0287	0.90	8159
-1.85	0322	0.96	8389
-1.80	0359	1.00	8413
-1.75	0401	1.05	8531
-1.70	0446	1.10	8643
-1.65	0495	1.15	8749
-1.60	0548	1.20	8849
-1.55	0606	1.27	8980
-1.50	0668	1.30	9032
-1.45	0735	1.35	9115
-1.40	0808	1.40	9192
-1.35	0885	1.50	9332
-1.30	0968	1.60	9452
-1.27	1020	1.65	9505
-1.25	1056	1.70	9554
-1.20	1151	1.75	9599
-1.15	1251	1.78	9629
-1.10	1357	1.80	9643
-1.00	1587	1.88	9699
-0.95	1711	1.90	9713
-0.90	1841	1.94	9738
-0.81	2090	1.95	9744
-0.80	2119	1.96	9750
-0.75	2266	2.00	9772
-0.68	2483	2.05	9798
-0.65	2578	2.10	9821
-0.60	2743	2.15	9842
-0.55	2913	2.20	9861
-0.50	3085	2.25	9878
-0.46	3228	2.30	9893
-0.45	3264	2.35	9906
-0.43	3336	2.40	9918
-0.40	3446	2.50	9938
-0.30	3821	2.60	9953
-0.20	4207	2.70	9965
-0.15	4404	2.80	9974
-0.10	4602	2.90	9981
-0.05	4801	3.00	9987