

UNIVERSITY OF SWAZILAND
FACULTY OF SOCIAL SCIENCE
DEPARTMENT OF SOCIOLOGY

SUPPLEMENTARY EXAMINATION QUESTION PAPER

TITLE OF PAPER: RESEARCH METHODS

COURSE CODE: SOC 201

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS:

- (1) Answer Any Four (4) Questions**
- (2) All Questions Carry Equal Marks**

1. Discuss the importance of carrying out literature review in research.
2. Suppose your research methods lecturer asked you to carry out a study on alcohol abuse in Matsapha area, which qualitative research technique would you find most useful in conducting the study? Explain how you would use the technique to complete the study.
3. Define content analysis and describe the units of analysis used in content analysis. Offer appropriate examples.
4. Explain the ethical issues in the Milgram, Humphreys, and Zimbardo examples.
5. Under what conditions are mail questionnaires, telephone interviews, web-surveys, or face-to-face interviews best?
6. What are focus groups? How does one constitute a focus group? Describe the phases involved in conducting focus group discussions.
7. Weekly wages of 500 workers in a textile factory are normally distributed around an arithmetic mean of E300 and a standard deviation of E50. Estimate the number of workers whose weekly wages will be:
 - (i) between E250 and E350
 - (ii) between E275 and E325
 - (iii) more than E225
 - (iv) less than E225
 - (v) the weekly wage corresponding to a worker whose percentile rank is 80.
8. The post office is interested in evaluating the speed of mail delivery. They sent mail to Mbabane from a variety of distances, and recorded the number of days it takes for the mail to arrive. The data follow:

<u>Days to Deliver</u>	<u>Distance</u>		
	40 Kms	100 Kms	150 kms
One	5	10	15
Two	10	10	5
Three or More	15	5	10

- (i) Run the Chi-square test.
- (ii) Interpret the results.

Table F. Critical Values of Chi Square

df	Level of significance for a directional test					
	.10	.05	.025	.01	.005	.0005
	Level of significance for a non-directional test					
	.20	.10	.05	.02	.01	.001
1	1.64	2.71	3.84	5.41	6.64	10.83
2	3.22	4.60	5.99	7.82	9.21	13.82
3	4.64	6.25	7.82	9.84	11.34	16.27
4	5.99	7.78	9.49	11.67	13.28	18.46
5	7.29	9.24	11.07	13.39	15.09	20.52
6	8.56	10.64	12.59	15.03	16.81	22.46
7	9.80	12.02	14.07	16.62	18.48	24.32
8	11.03	13.36	15.51	18.17	20.09	26.12
9	12.24	14.68	16.92	19.68	21.67	27.88
10	13.44	15.99	18.31	21.16	23.21	29.59
11	14.63	17.28	19.68	22.62	24.72	31.26
12	15.81	18.55	21.03	24.05	26.22	32.91
13	16.98	19.81	22.36	25.47	27.69	34.53
14	18.15	21.06	23.68	26.87	29.14	36.12
15	19.31	22.31	25.00	28.26	30.58	37.70
16	20.46	23.54	26.30	29.63	32.00	39.29
17	21.62	24.77	27.59	31.00	33.41	40.75
18	22.76	25.99	28.87	32.35	34.80	42.31
19	23.90	27.20	30.14	33.69	36.19	43.82
20	25.04	28.41	31.41	35.02	37.57	45.32
21	26.17	29.62	32.67	36.34	38.93	46.80
22	27.30	30.81	33.92	37.66	40.29	48.27
23	28.43	32.01	35.17	38.97	41.64	49.73
24	29.55	33.20	36.42	40.27	42.98	51.18
25	30.68	34.38	37.65	41.57	44.31	52.62
26	31.80	35.56	38.88	42.86	45.64	54.05
27	32.91	36.74	40.11	44.14	46.96	55.48
28	34.03	37.92	41.34	45.42	48.28	56.89
29	35.14	39.09	42.69	46.69	49.59	58.30
30	36.25	40.26	43.77	47.96	50.89	59.70
32	38.47	42.59	46.19	50.49	53.49	62.49
34	40.68	44.90	48.60	53.00	56.06	65.25
36	42.88	47.21	51.00	55.49	58.62	67.99
38	45.08	49.51	53.38	57.97	61.16	70.70
40	47.27	51.81	55.76	60.44	63.69	73.40
44	51.64	56.37	60.48	65.34	68.71	78.75
48	55.99	60.91	65.17	70.20	73.68	84.04
52	60.33	65.42	69.83	75.02	78.62	89.27
56	64.66	69.92	74.47	79.82	83.51	94.46
60	68.97	74.40	79.08	84.58	88.38	99.61

$s = \sqrt{\frac{\sum f(x-\bar{x})^2}{N-1}}$ or $\sqrt{\frac{\sum fx^2 - (\sum fx)^2}{N(N-1)}}$

The table lists the critical values of chi square for the degrees of freedom shown at the left for tests corresponding to those significance levels which head each column. If the observed value of χ_{obs}^2 is greater than or equal to the tabled value, reject H_0 . All chi squares are positive.

Source: Table F is taken from Table IV of Fisher and Yates, *Statistical Tables for Biological, Agricultural and Medical Research*, published by Longman Group Ltd., London (previously published by Oliver and Boyd, Ltd., Edinburgh), and by permission of the authors and publishers.

CHI-SQUARE $\chi_{obs}^2 = \sum \frac{(O-E)^2}{E}$

Arithmetic Mean (\bar{x}) = $\frac{\sum fx}{\sum f}$ or $\frac{\sum f}{N}$

Median = $L + \frac{\frac{N}{2} - nb}{nw} \times i$

Standard Deviation