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
(3) You may use a calculator

**THIS PAPER MUST NOT BE OPENED UNTIL PERMISSION
HAS BEEN GRANTED BY THE INVIGILATOR**

Q.1   Select a research topic or a problem. Discuss the various steps involved in carrying out research on the topic you have chosen. Show your hypothesis, identify and operationalize the two major variables in the hypothesis.

Q.2   Discuss the importance of carrying out literature review in research.

Q.3   Under what conditions are mail questionnaires, telephone interviews, web-surveys or face-to-face interviews best?

Q.4   What is informed consent and how does it protect research subjects? Explain the ethical issues in Milgram and Zimbardo examples?

Q.5   What is content analysis? Describe the steps involved in doing content analysis and identify the common units.

Q.6   Describe the four scales of measurement giving examples of each.

Q.7   (a) Discuss the relative advantages and disadvantages of the three measures of central tendency.

(b) The scores shown below represent the number of cigarettes smoked per day by a group of 16 students. Calculate the standard deviation for the set of scores.

Cigarettes smoked	Number of students
20 – 24	3
15 – 19	4
10 – 14	5
5 – 9	3
0 – 4	1

Q.8   Following data shows the attitude toward capital punishment by gender in a survey.

Attitude toward Capital Punishment	Gender	
	Male	Female
Favour	102	128
Oppose	22	38

Test the hypothesis of no difference in the attitude toward capital Punishment by Gender in this survey at a level of significance of alpha=0.05

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

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.

(i) arithmetic mean $\bar{X} = \dfrac{\Sigma fx}{\Sigma f}$

(ii) standard deviation $(s) = \sqrt{\dfrac{\Sigma f(x - \bar{x})^2}{(N-1)}}$

OR

$(s) = \sqrt{\dfrac{N\Sigma fx^2 - (\Sigma fx)^2}{N(N-1)}}$

(iii) Chi-square test

$\chi^2_{obs} = \sum \dfrac{(O-E)^2}{E}$