



UNIVERSITY OF EDUCATION, WINNEBA  
INSTITUTE FOR TEACHER EDUCATION AND CONTINUING  
PROFESSIONAL DEVELOPMENT (ITECPD)



END OF SECOND SEMESTER EXAMINATIONS, OCTOBER, 2024

LEVEL 400

COURSE CODE: JBM 482

COURSE TITLE: LEARNING, TEACHING AND APPLYING HANDLING  
DATA

TIME ALLOWED: 2 HRS

STUDENT'S INDEX NUMBER.



VISIT: COLEMANPUBLICATION.COM FOR MORE

GENERAL INSTRUCTIONS:

- This paper is made up of ONE SECTION.
- The Section is made up of five essay type questions.
- Answer any THREE questions in your answer booklet.
- Each question carries equal marks. You are expected to start each question on a new page.
- You are expected to hand over your answer booklet to the invigilator before you leave the examination hall.

**Instruction:** Answer any three (3) questions in the answer booklet provided.

- a. 70% and 90% of students from College A and College B who took statistics last year passed the class. Calculate the combined percentage of students who passed the class last year at the two colleges if 300 took it at College A and 700 students took it at College B?
- b. The table shows the distribution of ages of Parliamentarians in a given country.

Age (yrs)	21-30	31-40	41-50	51-60	61-70	71-up
Frequency	1	8	27	29	24	11

If an MP is selected at random, find the probability that the age is

- Between 31 and 40
- below 31
- Over 30 and below 51

iv. Below 31 and above 60

2. a. How many ways can 5 people be seated around a circular table?  
b. A committee of 8 boys and 5 girls is to be formed from 15 boys and 8 girls, how many ways can this be done?  
c. Show that  ${}^{n+1}C_r = \frac{(n+1) {}^nC_r}{(n+1-r)}$
3. The following are scores obtained by 50 students in a test that was marked out of 10

2	6	4	3	3	4	4	7	5	4
5	3	7	5	5	4	4	5	6	2
6	3	4	4	5	8	6	5	5	3
3	3	7	5	4	4	5	4	1	6
5	4	4	8	6	2	3	3	6	4

- a. Form a frequency distribution table  
b. Using the table, draw a histogram for the distribution.  
c. From the histogram, estimate the mode for the distribution.  
d. Calculate the standard deviation.
4. The number of hours that 10 students spent studying for a final examination (X) and their scores on that examination (Y) is shown in the table below (wab 14)

Hours (x)	10	11	15	18	13	17	16	15	16	6
Scores (y)	70	76	57	77	91	66	82	64	96	50

- a. Calculate the Pearson product moment correlation coefficient,  $r$  and comment on the strength of relation between the hours studied and the scores obtained.  
b. Plot a scatter diagram for the data.  
c. Calculate the slope and intercept of the estimated regression model.  
d. Use your model to predict the score of a student spent 11 hours studying for the final examination?
5. A tutor conducted a survey on the time (seconds) students used to solve a given statistics problem.

52	62	81	50	69	58	97	66	83	87
75	69	85	67	73	79	95	68	80	92
87	91	83	69	75	65	53	58	66	96

- a. Explain with illustrations how you will guide a class to construct a stem and leaf plot for the data.  
b. Explain how you will use the stem and leaf plot to determine the median time.



VISIT: [COLEMANPUBLICATION.COM](http://COLEMANPUBLICATION.COM) FOR MORE