



THE KENYA POLYTECHNIC UNIVERSITY
COLLEGE

DEPARTMENT OF INSTITUTIONAL MANAGEMENT
HIGHER DIPLOMA IN CATERING & ACCOMMODATION
MANAGEMENT
END OF YEAR I EXAMINATION
NOVEMBER 2007 SERIES

STATISTICS & COSTING CONTROL

TIME: 2 HOURS

Instructions to candidates

This paper has TWO sections:

SECTION A: STATISTICS and

SECTION B: COSTING & CONTROL

Answer any **THREE** questions from **SECTION A**

Answer **ALL** questions from **SECTION B**

This paper consists of 5 printed pages

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SECTION A: STATISTICS

1. The data below show the earnings per day (in shillings) of 50 casual workers.

236	283	222	249	265
263	221	224	228	217
204	293	259	266	296
283	242	288	238	215
240	283	226	296	245
291	211	219	212	264
207	268	245	263	284
238	274	254	251	237
263	206	248	277	238
264	253	291	281	269

Required:

- a) A grouped frequency table starting with class 200 - 209, and using a class width of 10.
- b) Use the frequency distribution to compute:
- (i) The mean.
 - (ii) The median.
 - (iii) The mode. (20 marks)
2. a) Name any five important features to be considered while constructing a table. (5 marks)
- b) Outline the features of a good questionnaire. (5 marks)
- c) The following table shows the value of export of agricultural commodities from a certain country during the year 2001 in millions of shillings.

Commodities	Value (Sh.million)
Coffee	96.5
Wheat	108.3
Cotton	61.2
Flowers	42.6
Tea	40.4
Timber	121.0
Others	20.0

Required:

A pie chart showing the percentage export expenditure of the commodities. (10 marks)

3. (a) Outline eight basic rules to be followed in the construction of statistical tables. (8 marks)

(b) Jambu Hotel ltd sells three products namely A, B and C. These products incur costs of raw materials, labour and overheads. The costs of raw materials incurred in producing products A, B and C are Sh.20,000, Sh.25,000 and Sh.40,000 respectively. The labour costs incurred in producing products A, B and C are Sh.50,000, Sh.35,000 and Sh.42,000 respectively. The overhead costs incurred in producing products A, B and C are Sh.5,000, Sh.8,000 and Sh.7,500 respectively.

Required:

- (i) Arrange the above information in a tabular form.
(ii) Calculate the total labour cost as a percentage of the total cost.

(12 marks)

4. (a) The following frequency distribution table describes the number of orders received by a hotel each week over a period of forty weeks.

Number of orders received	Number of weeks
5-9	1
10-14	7
15-19	11
20-24	10
25-29	7
30-34	2
35-39	0
40-44	1
45-49	<u>1</u>
Total	<u><u>40</u></u>

Construct a frequency histogram.

(10 marks)

(b) The following relate to the price in Sh/kg for a consumer product over a period of 5 years

Year	2000	2001	2002	2003	2005
Price (Sh/Kg)	25	28	35	42	50

Required:

Compute the average price in sh/kg over this period. (10 marks)

SECTION B: COSTING AND CONTROL

5. (a) Explain the term limiting factor as used in budgeting (3 marks)
(b) Highlight any FIVE budgetary limiting factors (5 marks)
(c) Describe the following budgets (12 marks)
- i. Cost of sales budget
 - ii. Labour cost budget
 - iii. Overhead cost budget
 - iv. Operational budget
6. (a) Distinguish between operational and post-operational control. (4 marks)
(b) Explain the usefulness of data on average spending, sales mix and restaurant occupancy for volume forecasting. (9 marks)
7. Write notes on the pricing objectives of catering establishments. (7 marks)
8. The following figures were extracted from the books of Kula Restaurant in respect of June, 2006.

	Ksh
Sales	260,000
Opening stock (1 st June, 2005)	25,000
Closing stock (30 th June, 2005)	32,000
Purchases	123,000
Wages and salaries	56,000

National insurance	3,000
Gas and electricity	8,000
Repairs and renewals	10,000
Rent and rates	18,000
Insurance	4,000
Postage and telephone	2,000
Printing and stationery	3,000
Depreciation	20,000

You are required to:

- i. Calculate the elements of cost and express each as a percentage of sales
assuming that Ksh 8,000.00 was used for staff meals (18 marks)
- ii. Calculate the average spending power (ASP) per customer,
assuming that 5,900 customers were served in June, 2005.
(2 marks)