

BUSINESS MATHEMATICS AND STATISTICS – PAPER 3

1.0 General Performance

- There was a decline in performance from 60.56% in December 2010 examinations to 52.74 % in June 2011. Questions 5 and 7, were the best answered while 2 and 3 were the worst answered. Question 4 was the least attempted.
- Candidates need to do thorough revision without ignoring any topic of the syllabus for better performance in examinations.

2.0 PERFORMANCE IN INDIVIDUAL QUESTIONS

2.1 Question 1

- This was a set of 20 multiple-choice questions which were drawn from the entire syllabus.
- This question was fairly well answered; the majority of candidates scored above 10 out of the 30 marks allocated to this question.
- Most of the candidates failed numbers (iii) ,(vii) (xi) and (xiii) and (xvi) on z-score, probability distribution and gradient function
- Candidates are advised to read widely in order to score high marks in this question.

2.2 Question 2

- The question required candidates to: (a) distinguish between (i) row and column matrix (ii) unit, null and square matrix, (b) find the value of the following matrices: (i) $P + Q$, (ii) $P - Q$, and $(P + Q)(P - Q)$, (c) solve a simultaneous equation in two variables.
- This was a popular question and was generally well answered.
- A few candidates though could not distinguish the matrices as required.
- Candidates are encouraged to learn basic terms, matrix operations and use of different methods of solving simultaneous equations.

2.3 Question 3

- The question required candidates to find: (a) average price (b) (i) the amount of tax paid (ii) number of litres to be bought from Shs 7,480 (iii) percentage increase in the price of kerosene, (c) determine: (i) total number of candidates who sat for examinations, (ii) number of candidates who did not get grade A from a pie chart.
- This question was also popular and the majority of candidates scored high marks.

2.4 Question 4

- The question required candidates to: (a) distinguish between (i) commission and discount (ii) profit and appreciation; (b) calculate the cost of a product given ratios; (c) find: (i) price function (ii) total revenue function (iii) profit maximising output and (iv) profit maximising price.
- This question was the most unpopular and poorly answered. Candidates generally had inadequate knowledge of the concept of revenue functions and calculus required in the question.
- Candidates are advised to pay more attention to questions involving computations, percentages and revenue functions.

2.5 Question 5

- The question required candidates to: (a) distinguish between permutations and combinations; (b) write all different permutations of three letters "A.T.C"; (c) find probabilities that when an ambulance is needed: (i) both (ii) at least one and (iii) only one will be available.
- This question was very unpopular and poorly answered.
- Candidates should pay more attention to probability in all cases.

2.6 Question 6

- The question required candidates to: (a) define the terms: (i) sinking fund (ii) annuity (iii) amortization (b) rate of simple interest (c) (i) state the cost and year with the smallest increase and highest increase in the cost of living. (ii) explain the pension cost index of 94 in 1994.
- This question was not popular and was poorly answered.
- Candidates showed inadequate knowledge of basic definitions of terms and index number interpretation.
- Candidates are advised to consider financial terms and index numbers as key topics and revise them adequately in order to score high marks in such questions.

2.7 Question 7

- The question required candidates to: (a) distinguish between terms in set theory: (i) equal and equivalent sets (ii) empty and sub-sets; (b) draw Venn diagrams for sets G and C to show: (i) all girls that like chocolate (ii) no girl likes chocolate; and (iii) some girls like chocolate; (c) use Venn diagram to find the number of candidates who like both statistics and probability
- This question was very popular and well answered by majority of the candidates.
- Candidates are advised to take all areas of the syllabus very important in examinations.