KENYA SCHOOL OF GOVERNMENT

PROFICIENCY EXAMINATION FOR CLERICAL OFFICERS

AUGUST 2019

PAPER CODE: 601

BUSINESS CALCULATIONS

DATE: WEDNESDAY, 21ST AUGUST 2019

TIME: 9.00 A.M. – 10.30 A.M. (1 HOUR 30 MINUTES)

INSTRUCTIONS TO CANDIDATES:

1. This paper consists of two sections; **A** and **B**.
2. Section **A** consists of **ten** compulsory questions carrying 30 marks.
3. Section **B** consists of **five** questions carrying 10 marks each. Answer any **three** questions.
4. Calculators may be used.
5. Show all your working.
6. Answer all questions on the answer booklet provided.

SECTION A: COMPULSORY

1. During a sports tournament the following runs where recorded in a cricket match;

   44, 91, 58, 58, 74, 81, 83, 40

   Determine the range. **(2 marks)**

2. In preparation for a trip to China, a clerical officer converted Ksh.360, 000 into Chinese Yuan. Calculate the amount received in Yuan.
   1 Chinese Yuan = Ksh 16 **(2 marks)**

3. The ratio of men to women in a government institution is 5:6. There are 550 employees in the institution. Determine:
   (i) the ratio of women to the total number of employees
   (ii) the number of men in the institution **(4 marks)**

4. Four clerical officers in a State Department took 18 days to arrange files in a registry. Calculate the number of days twelve clerical officers would take to finish the same task if they work at the same pace. **(4 marks)**

5. A square sided room in a procurement office is to be carpeted. If the area of the room is $576cm^2$, determine the total length of the carpet to be used. **(3 marks)**

6. A dress whose marked price was Ksh.4, 500 was sold to an officer after allowing a 10% discount. If the seller made a profit of 20%, calculate the seller's buying price.
   (4 marks)

7. A clerical officer's salary increased by 15% at the end of the year. If the officer's initial salary was Ksh.32, 000, calculate the salary after the increment. **(2 marks)**

8. In a State Department with 920 employees, 46 of them have Masters Degrees. Express the number of employees with Masters Degree as a percentage. **(2 marks)**

9. A clerical officer bought a piece of land valued at Ksh.1,800,000 at the end of the year 2012. If the value appreciated at the rate of 9% per annum, calculate the value of the land at the end of the year 2017. **(4 marks)**

10. A water tank in an office is in form of a cuboid with length 3.6 m, width 2.7m and height 2.1 m. Calculate the volume of water in the tank if it is three-quarters full. **(3 marks)**

SECTION B: ANSWER ANY THREE QUESTIONS

11. Twenty United States volunteers decided to make a trip to Kenya. They paid 400 US dollars each for 10 days in a Kenyan hotel and 600 US dollars each to visit Amboseli National park. While in the park, they spent a total of Ksh. 20,000 on gifts from the local community. Calculate the amount of money they spent in Kenya shillings.

    (1 US dollar = Ksh. 102) **(10 marks)**

12. An employee's monthly salary during the month of April was as follows:
    - Basic salary   -   Ksh.18,500
    - House allowance   -   Ksh. 6,800
    - Medical allowance   -   Ksh. 1,050

    The Income Tax rates were as follows:

Monthly taxable (Ksh)	Rate (%)
1 – 10,164	10
10,165 – 19,740	15
19,741 – 29,316	20
29,317 – 38,892	25
Over 38,892	30

    Calculate:
    (a) Taxable income
    (b) Gross tax **(10 marks)**

13. The angles of the sector in a pie chart showing the country of origin of 300 new cars were:

    Germany   60°

    France   36°

    Japan   114°

    The remaining sector of the chart showed cars from Sweden.

    (a) Calculate the sector angle in degrees for cars from Sweden.
    (b) Determine the number of cars from Japan
    (c) Calculate the percentage of the new cars from France. **(10 marks)**

14. A clerical officer deposited Ksh.1.5 million for 3 years in a bank which offered 12% per annum compound interest with the aim of buying a house valued at Ksh.3.25 million.

After three years, he withdrew the whole amount and intended to raise the remainder by selling his vehicle valued at Ksh750, 000. The balance would be raised from selling some of his cows. If the selling price of one cow is Ksh.100, 000, determine the number of cows he will sell to raise the deficit. **(10 marks)**

15. A Government Ministry shared a sum of money on Airtime among three Departments; A, B and C. Department C got $\frac{11}{60}$ of the total amount, while the rest of the amount was shared among Departments A and B in the ratio 15:10 respectively. Calculate the amount of money that each of the remaining Departments received given that Department C received Ksh 132 000. **(10 marks)**