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SOUTH WEST REGIONAL MOCK EXAMINATION
TECHNICAL AND VOCATIONAL EDUCATION

THE TEACHERS' RESOURCE UNIT (TRU)
Cellule d'appui à l'action Pédagogique

IN COLLABORATION WITH
En collaboration avec

THE REGIONAL INSPECTORATES OF PEDAGOGY AND

THE SUBJECT TEACHERS' ASSOCIATIONS (STA)

Date   Tuesday, 25/03/2025   INTERMEDIATE LEVEL

Specialty	ALL SPECIALTIES
Subject Title	BUSINESS MATHEMATICS
Subject Code Number	5020
Paper Number	2

TIME: TWO AND 30 MINUTES

INSTRUCTIONS TO CANDIDATES:

his paper carries 8 questions. Answer five questions. Answer the two questions in in section A and any three uestions in section B.

ch question carries 20 marks. For your guidance, the approximate mark for each part of a question is indicated in ackets.

you answer more than 5 questions, ONLY the first 5 answers presented will be marked and the other cancelled.

ou are allowed to use **calculators**

owever financial tables ARE NOT ALLOWED.

ou must use ONLY Blue or Black ink. No answer in Pencil will be marked.

ll Appendices filled or completed should be handed in with your answer booklet.

ll necessary calculations must be shown.

ou are reminded of the necessity for good English and orderly presentation in your answers.

ou are advised to read carefully through the question paper, before you begin your answers.

SECTION A

1) The manager of GOD'S OWN AUTOMOBILE NCHAM decided at the end of the year to share some money to four of her Agents within the 2023 financial year. The sharing was done in the ratio 6:4:10:7, and the first person received 300 000FCFA. Calculate
(a) The amount spend by the manager   (8 marks)
(b) The amount of money received by the three others   (6maks)
(c) If the total number of customers brought in by the agents was 540. Determine the number of customers brought by each agent.   (6marks)

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2) (a) The table below shows the number of students and subjects offered in the Kings College Nkwenebo

SUBJECTS	NUMBER OF STUDENTS
Commerce	20
Accounting	50
Business Maths	25
Economics	15
Mathematics	30
Office Practice	40

Required:

Represent this information on a pie chart   (8 Marks)

(b) Nji, Tume and Ndep want to set up a family business worth ten million francs. They decided to raise this money by saving the following amounts in their respective banks for 2 years.
- Nji saved 4 000 000FCFA at 5% in UBA
- Tume saved 2 000 000FCFA at 6% in BICEC
- Ndep saved 1 500 000FCFA at 4% in Credit Agricole.

Required:
(I) How much will be needed after two years to meet the target (10 000 000FCFA)   (6 marks)
(II) If this remaining amount is divided equally amongst them, what will be the total contribution of each of them to start the business   (6 Marks)

SECTION B

3) (a) Mami Bikom on a particular market day bought items as shown on the table below:

ITEMS	QUANTITY	UNIT PRICES FCFA
TOMATOES	3 BASKETS	10 000
PEPPER	2 BASKETS	8 000
VEGETABLES	10 BUNDLES	1 000
ONION	2 BAGS	25 000
GARLICS	1 BAG	30 000

Required
(I) Determine the gross amount she spent
(II) If she obtained a 5% rebate (X%) trade discount and finally paid 120 156FCFA.Determine the rate of the trade discount (X%)   (12 Marks)
(b) The table below gives the price/quantity of the stock of fish, with price quoted in FCFA per KG and quantity in KGs.

Year	2020	2021	2022	2023
Price(FCFA)	1500	1700	1600	1800
Quantity(kg)	500	550	480	610

Calculate
(I) The price index for each year taking 2020 as base year
(II) The quantity index for each year taking the quantity of 2020 as base year   (8marks)

(a) BANSO bread employs 102 sales agents who earned a fixed monthly salary of 15 500FCFA. In addition, each agent receives a bonus calculated on sales as follows:

Turn over	Commission
0 - 500 000	15FCFA PER 1000
500 000 - 1 000 000	20FCFA PER 1000
1 000 000 - 1 500 000	25FCFA PER 1000
1 500 000 - 2 000 000	30FCFA PER 1000

a) What salary will Faison take for a sale of 1 800 000FCFA
b) Another worker earned salary of 45 000FCFA for a particular month. What was his turn over. (12mark)
c) Determine the average due date if the following bills at 6%, date if equivalence 31st march 2019
   - 120 000FCFA due on 30/04/23
   - 64 000FCFA due on 15/05/2023
   - 76 000FCFA due on 17/06/2023
   - 1 120 000FCFA due on 30/06/2023   (8 marks)

5) (a) calculate the 8th term of the Arithmetic Geometric Progression (AGP):2,6,12,20,30,42,56...(common difference =4 , common ratio = 3/2)   (10marks)

(b) Two trains start at the same time from Yaounde and Douala and proceed towards each other at the rate of 14km and 21km per hour respectively. When they met, it is found that one train has traveled 70 Kilometers more than the other. What is the distance between the two stations?   (10 marks)

6) (a) MMe ASABA is a Cameroon dealer in Afritudes who buys from Nigeria. Given that the exchange rate between FCFA and NAIRA is 1N =2.5FCFA. on one trip, she with the sum of 7 000 000FCFA and spend as follows:
   - Air tickets (to and fro)   620 000N
   - Bought goods   15 500 000N
   - Custom duties   380 000N
   - Luggage charge   570 000N
   - Transport to shop   30 000FCFA

Calculate:
(I) The total expenses in Naira   (5 marks)
(II) The balance in FCFA   (5 marks)
b) A bag contains 5 red balls and 3 green balls. A ball is selected at random, its colour noted and not replaced in the bag. Find the probability that:
   (I)   Both ball are red   (5 maks)
   (II) One is red and the other is green .   (5 Marks)

7) (a) The price of 5 bottles of carrot juice and 7 bottles of soup juice is 8900FCFA, while 6 bottles of carrot juice and 8 bottles of soup s juice is 10300FCFA.
   (i) Calculate the cost of a bottle of each type of juice   (06 marks)
   (ii) Determine how much she should take along with her, if she intends buying 10 bottles of carrot juice and 20 bottles of soup juice   (04 marks)

(a)   MMe Bih Queenta is a business Lady. She was given the sum of 2 000 000FCFA by the brother in Euro to start up SNAILs business. Given that she was still studying this new business, she had two options:

-        To save this sum at simple interest with MUFIC who's interest rate is 5% OR
-        To save the sum with Ntarikon Credit Union, whose interest rate is 5% Compound interest
With your knowledge in business mathematics, kindly help he to choose the right institution and say why,   (10marks)

8) On the 20th September 2022, Thestar provision Store, P.O Vox 22 Tobin, submitted the following bills of exchange fo discount at UBC kumbuo with account number 1111793215

AMOUNT	PLACE OF PAYMENT	DUE DATE OR VALUE DATE
1 400 000	Douala	90 DAYS ON Sight
900 000	Limbe	60 Days from date
700 000	Nkongsamba	29/10/2022
1 000 000	Eseka	17/11/2022
1 200 000	Bafia	17/09/2022
400 000	Manjo	45 days on sight
800 000	Nkambe	24/09/2022

All the bills were created on the 12th of September 2022. The bills of Douala, Limbe and Manjo were accepted on the 15/09/2022, 17/09/2022, and 19/09/2022 respectively

Discount conditions:
- Bankable bills 15%
- Non- bankable bills 16%
- Assure a banker;s day for all bills equal to or more than 45days to mature

Commissions
- Endorsement 0.5%
- Listing 1/12%
- Manipulation commission 200FCFA per bill
- Exit notice 400FCFA for non- bankable bills

Work required

a) Determine the due date for the bills of Douala, Limbe and Manjo   (06Marks)

b) Establish the discounting statement(NB, Round calculations to the nearest francs) (14 marks)