

GENERAL CERTIFICATE OF EDUCATION BOARD
Technical and Vocational Education Examination

Business Mathematics 1
5020

JUNE 2023

INTERMEDIATE LEVEL

Specialty and Acronym	All Commercial Specialties
Centre No.	
Centre Name	
Candidate Identification No.	
Candidate Name	

Mobile phones and calculators are **NOT** allowed in the examination room.

5020 BUSINESS MATHEMATICS 1: MULTIPLE CHOICE QUESTION PAPER

Duration: One Hour Thirty Minutes (1hr 30mins)

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you start answering the questions in this paper. Make sure you have a soft HB pencil and an eraser for this examination.

1. USE A SOFT HB PENCIL THROUGHOUT THE EXAMINATION.
2. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Before the examination begins:

3. Check that this question booklet is headed “**Intermediate Level – 5020 BUSINESS MATHEMATICS 1.**”
4. Insert the information required in the spaces above.
5. Insert the information required in the spaces provided on the answer sheet using your HB pencil:

Candidate Name, Exam Session, Subject Code and Candidate Identification Number.

Take care that you do not erase or fold the answer sheet or make any marks on it other than those asked for in these instructions.

How to answer the questions in this examination:

6. Answer **ALL** the **50** questions in this Examination. All questions carry equal marks.
7. Each question has **FOUR** suggested answers: **A, B, C** and **D**. Decide which answer is correct. Find the number of the question on the Answer Sheet and draw a horizontal line across the letter to join the square brackets for the answer you have chosen.

For example, if **C** is your correct answer, mark **C** as shown below:

[A] [B] [C] [D]

8. Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about an answer, erase the first mark carefully, and then mark your new answer.
9. Avoid spending too much time on any one question. If you find a question difficult, move on to the next question. You can come back to this question later.
10. Do all rough work in this booklet, using, where necessary, the blank spaces in the question booklet.
11. **At the end of the examination, the invigilator shall collect first the answer sheet and then the question booklet. DO NOT ATTEMPT TO LEAVE THE EXAMINATION HALL WITH IT.**

Turn Over

1. 50,000FCFA is invested at 12% simple interest for 9 months. Calculate the interest.
- A 4,500FCFA
B 450FCFA
C 5,400FCFA
D 4,000FCFA
-
2. Convert $5\frac{1}{3}$ years to months.
- A 64 months
B 5.33 months
C 60 months
D 150 months
-
3. A profit is shared to three partners in the ratio 5:4:1, what is the share of the second partner if the first and the third partners received 125,000FCFA and 25,000FCFA respectively?
- A 225,000FCFA
B 100,000FCFA
C 75,000FCFA
D 150,000FCFA
-
4. If the area of a square is 144cm^2 , what is its perimeter?
- A 42cm
B 45cm
C 40cm
D 48cm
-
5. The median of the following scores 2, 3, 4, 6, 9, 7, 1, 2 is
- A 3
B 4
C 3.5
D 5.2
-
6. Calculate the value of VAT at 19.25% if the sales VAT inclusive are 1,431,000FCFA.
- A 969,000FCFA
B 1,200,000FCFA
C 1,155,532.5FCFA
D 231,000FCFA
-
7. BRYAN bought a gas cooker for 60,000FCFA and later sold it for 75,000FCFA. What was the mark up rate on sales?
- A 25%
B 15%
C 20%
D 30%
-
8. Given that 20Yen = 1 Pound, how many pounds will 450 Yens amount to?
- A 9,000 pounds
B 470 pounds
C 22.5 pounds
D 430 pounds
-
9. Give the ratio of a bucket of guavas weighing 30,000g to a bucket of mangoes weighing 25kg.
- A 30,000:25
B 30:25
C 25:30.000
D 25:30
-
10. NICO spent 32,000FCFA to buy 4 shirts and 2 pairs of shoes. If a shirt costs 5000FCFA, how much did he spend on shoes?
- A 27,000FCFA
B 12,000FCFA
C 20,000FCFA
D 52,000FCFA
-
11. What is the probability of passing an examination, if that of failing that same examination is $\frac{2}{5}$?
- A $\frac{3}{5}$
B $1\frac{3}{5}$
C $\frac{3}{4}$
D $\frac{2}{5}$
-
12. JOHN covers a distance of 30km in 3 hours. Give his speed.
- A 30km/h
B 10km/h
C 20m/s
D 15km/h
-
13. In a hire purchase contract, 40,000FCFA is paid cash and the balance in 6 equal installments of 25,000FCFA. What is the hire purchase price?
- A 190,000FCFA
B 180,000FCFA
C 150,000FCFA
D 110,000CFA
-
14. A bill payable in 45 days is discounted on 09/12/2021 is due date on;
- A 24/01/2022
B 23/01/2022
C 23/02/2022
D 25/05/2022
-
15. 400,000FCFA is invested at 5% p.a. for a given number of months and yielded an interest of 5,000FCFA. Determine the duration of investment.
- A 3 months
B 4 months
C 5 months
D 3.5 month

16. Calculate the commission at 6% within the range 500,000 – 1, 500,000.
- A 55,000FCFA
 - B 12,000FCFA
 - C 6,000FCFA
 - D 60,000FCFA

17. From the equation $PV = NV \left(1 - \frac{rt}{36,000}\right)$, determine NV given that $PV = 149,250FCFA$, $r = 6\%$ and $t = 30$ days
- A 750FCFA
 - B 150,000FCFA
 - C 149,250FCFA
 - D 150,750FCFA

18. If 18 men dig a trench in 45 days. How long would it take 15 men working under the same conditions finish the job?
- A 54 days
 - B 61 days
 - C 29 days
 - D 50 days

19. From the frequency distribution, give the mean of the distribution.

X	F
10 - 20	4
20 - 30	6

- A 25
 - B 10
 - C 15
 - D 22
20. When the capital balance is found on the debit side of the current account, we say that the account has a
- A Debit balance
 - B Credit balance
 - C Negative balance
 - D Positive balance
21. JOSEPH bought a car in Europe for 2,500Euros. Determine the cost of the car in FCAF if the exchange rate of $1\text{€} = 600FCFA$.
- A 1,420,000FCFA
 - B 1,550,000FCFA
 - C 1,620,000FCFA
 - D 1,500,000FCFA
22. A customer receives a bonus of 75,000FCFA which is 5% of his purchases. Evaluate his purchases.
- A 1,000,000
 - B 1,500,000FCFA
 - C 500,000FCFA
 - D 1,425,000FCFA

23. The cost of a flower vase is 2,400FCFA and the shopkeeper sold it at a loss of 10%. At what price did he sell the vase?
- A 1,900FCFA
 - B 1,000FCFA
 - C 3,200FCFA
 - D 2,160 FCFA

24. Determine the value of X if, $60X - 120,000 = 360,000$.
- A 2,000FCFA
 - B 8,000FCFA
 - C 60,000FCFA
 - D 4,000FCFA

25. What is the capital should be invested to produce simple interest of 20, 000FCFA after 2 years at 5%?
- A 200,000FCFA
 - B 175,000FCFA
 - C 2,000,000FCFA
 - D 150,000FCFA

26. PETER paid 9,400,000FCFA for two bills. If the first bill was 1,200,000FCFA less than the second, what was the amount of each bill?
- A 5,000,000 : 4,400,000
 - B 5,300,000 : 4,100,000
 - C 8,700,000 : 1,200,000
 - D 4,100,000 : 5,300,000

27. Calculate the profit to be shared amongst three partners after subtracting a reserve of 5% and 200,000FCFA as manager's share from a total profit of 1,500,000FCFA.
- A 1,225,000FCFA
 - B 1,425,000FCFA
 - C 1,300,000FCFA
 - D 1,450,000FCFA

28. What is the mode of the scores 12, 12, 1, 10, 2, 1, 9, 4, 5, 5, 9, 1?
- A 12
 - B 5
 - C 1
 - D 10

29. Determine the rate of discount that will give a net amount of 960,000FCFA from 1,000,000FCFA.
- A 4%
 - B 5%
 - C 6%
 - D 10%

30. The future value of a certain capital is $800 + 4n$ and the present value of another capital is $1160 - 2n$. How much time in months is required for these two amounts to be equal?
- A 60 months
B 50 months
C 55 months
D 48 months
-
31. A book is selected from a bag of 6 green and 8 red identical books. What is the probability of selecting two red books?
- A $16/49$
B $4/13$
C $9/13$
D $23/49$
-
32. 49 mangoes are shared to two children in the ratio 3:4, determine their respective shares.
- A 21 and 28
B 20 and 29
C 18 and 31
D 24 and 25
-
33. A cyclist started a race at 7:30 am and riding at the speed of 20km/h. At what time did he complete a distance of 60km?
- A 11:30 am
B 10:30 am
C 10:45 am
D 11:05 am
-
34. Q payment of 712,800FCFA is replaced by a bill of 720,000FCFA payable in 60 days. What is the rate of equivalence?
- A 5%
B 7%
C 8%
D 6%
-
35. $\frac{0.6025}{0.50}$ when simplified will give :
- A 12.05
B 1205
C 120
D 120.5
-
36. The deductions on the discounting of a bill were; discount: 22,000CFA, commissions: 2,500FCFA. Given that the net amount received was 425,500FCFA. What is the nominal value of the bill ?
- A 450,000FCFA
B 410,000FCFA
C 450,500FCFA
D 451,000FCFA
-
37. AKWA is paid a fixed salary of 50,000FCFA and a 10% commission on sales above 200,000FCFA. How much will he receive in total when his sales are 600,000FCFA?
- A 90,000FCFA
B 40,000FCFA
C 50,000FCFA
D 110,000FCFA
-
38. The distance round a circle is called:
- A Area
B Diameter
C Radius
D circumference
-
39. Determine the capital that was invested at compound interest rate of 10% for 2 years that yielded an interest of 42,000FCFA.
- A 2,420,000FCFA
B 1,580,000FCFA
C 2,000,000FCFA
D 42,000FCFA
-
40. SILAS works 52 hours a week with a normal working time of 6 days per week and 8 hours per day. If the normal working hour is paid at 2,000FCFA per hour and overtime hour at 2,800FCFA, calculate his total earnings.
- A 107,200FCFA
B 96,000FCFA
C 104,000FCFA
D 105,000FCFA
-
41. From $I = 1250t$, determine t if $I = 45,000FCFA$
- A 57.6 days
B 62.5 days
C 50 days
D 36 days
-
42. A set of school materials consists of 30 pens, 20 rulers, and 40 boxes of chalk. What is the angle of sector represented by the chalk?
- A 80°
B 160°
C 120°
D 100°
-
43. A bucket of melon seeds costs 10,000FCFA and when cracked it gives 60 cups which are sold at 200FCFA per cup. What is the percentage gain per bucket?
- A 22%
B 15%
C 10%
D 20%

44. In a class of 60 students with 15 girls. What is the probability of selecting a boy?
A $1/4$
B $3/4$
C $1/5$
D $4/5$
-
45. Give the mark up rate on cost for goods bought at 3,000,000FCFA and resold at 3,600,000FCFA.
A 18%
B 20%
C 25%
D 22%
-
46. Determine the discount of a bill of face value 600,000FCFA discounted at 9% for 60 days.
A 900FCFA
B 9,000FCFA
C 18,000FCFA
D 609,000FCFA
-
47. What is the coefficient of proportionality given that $A = \{20,30\}$ is inversely proportional to $B = \{15,10\}$?
A 2
B 3
C 200
D 300
-
48. How long will 200,000FCFA invested at 7.5% to yield a future value of 202,500FCFA?
A 55 days
B 58 days
C 60 days
D 62 days
-
49. If 1 Yen = 401FCFA, 1Euro = 450FCFA and 1.2 dollars = 1.8 Euros; which of these currencies is of highest value?
A Dollar
B Euro
C Yen
D FCFA
-
50. Calculate the distance covered by a motor cycle travelling at 60km/h after 180 minutes.
A 180km
B 10800km
C 10400km
D 800km
-

STOP

GO BACK AND CHECK YOUR WORK