KINGDOM OF BAHRAIN
MINISTRY OF EDUCATION
INTERNAL EXAMS SECTION
SECONDRY EDUCATION / UNIFIED TRACK

MODEL ANSWERS

60 / 60

FIRST SEMESTER EXAM 2023/2024

COURSE NAME: FINANCIAL MATHEMATICS   **TRACK:** التجاري وتوحيد المسارات

COURSE CODE: مال111   **TIME:** 2 Hours

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40×0.25

10

QUESTION ONE:

A-Write the following numbers in letters: (p.17)

    a- $ 345.22   = Three/ hundred/ forty/-five/ <u>dollar</u>/ and twenty/-two/ **cents/**

    b- 0.685   =   Six/ hundred/ eighty/-five/ thousandths. /

B- Find the place value of the following numbers:

    a- 12,971,456

    b- 210,155,321,487

تعليمات التصحيح:
1- يراعى الخطأ المترتب.
2- تعطى درجة الشرطة لبعض الأسئلة التي يدمج الطالب خطوتين فى خطوة واحدة.

Trillions			Billions			Millions			Thousands			Units		
Hundred Trillion	Ten Trillion	Trillion	Hundred Billion	Ten Billion	Billion	Hundred Million	Ten Million	Million	Hundred thousand	Ten Thousand	Thousand	Hundred 100	Ten	One
a							1/	2/	9/	7/	1/	4/	5/	6/
b			2/	1/	0/	1/	5/	5/	3/	2/	1/	4/	8/	7/

C- Fatema has GBP 2500 and she wants to convert it into Saudi Arabian Riyal. **How many SAR she receive**, if the exchange rate as follow:

  (Selling price of GBP =BHD 0.4636926) & (Buying price GBP = BHD0.4461437)

(Selling price of SAR =BHD 0.1010560) & (Buying price SAR = BHD0.1000027)

Solution: (p.32)

$$2500 \text{ GBP} = \frac{2500 \times 0.4461437}{1} // = \text{BHD}1115.359/$$

$$\text{BHD}1115.359 = \frac{1115.359 \times 1}{0.1010560} // = \text{SAR}11037.04//$$

QUESTION TWO:

32×0.5

16

A- Saleh worked the following hours during the week in as follow:

Days	FRI	SAT	SUN	MON	TUE	WED	THU
Hours	0	8	8	8	8	8	8
O.T during the day	0	0	1	0	0	1	1
O.T during the night	0	2	0	2	2	0	0

Calculate the total wage during the week, if you know that the average hourly wage is BHD 4.500.

Solution: (p.48)

Regular Wage = (8 + 8 + 8 + 8 + 8+ 8)/ × 4.500 /   = BHD216.000/
Over Time of during the day   = (1+ 1 +1) /× 4.500/ × 1.25/ = BHD 16.875/
Over Time of during the night = (2+ 2 +2)/ × 4.500/× 1.50/ = BHD 40.500/
Total Wages = 216.000/ + 16.875/ + 40.500/ = BHD 273.375//

B- Salem works in a private sector of ALamal Co., in Bahrain with a basic monthly salary of BHD 750 and BD100 as a monthly transportation allowance. If you know 7% as scocial insurance and 1% unemployment insurance deduction. **Calculate his net salary for the month?**

Solution: (p.51)

Social Insurance = (basic salary + transportation allowance) × 7%
                = (750/ + 100/) × 7% /= BHD59.500/
Unemployment Insurance = (basic salary + transportation allowance) × 1%
                = (750 /+ 100/) × 1% /= BHD8.500/
 Total deduction = Social insurance   + Unemployment Insurance
                = 59.500/ + 8.500/ = BHD68/
Net salary = Basic salary + Total allowances - Total deduction
          = 750/ + 100 /– 68 /= BHD782//

QUESTION THREE:

20×1

20

A- The list price of machine is BHD2400. A manufacturer gives a 10% discount to all retailers. **What is the trade discount and net price (payment)?**

Solution: (p.71)

- Trade Discount   = List Price × Discount Rate

$$= 2400 \text{ / } \times 10\% \text{ / } = \text{BHD240 /}$$

- Net Price (Payment) = List price – Trade Discount

$$= 2400 \text{/} – 240 \text{/} = \text{BHD2160/}$$

B- Salman bought furniture for his house BHD8000 with trade discount 20%. Also, paid transportation is BHD150. **Find the following:**

1- **Total VAT.**

2- **Total Payment**

Solution:

Net price for furniture = 8000 /× (100% -20%)/ = BHD6400 /

Customs on furniture and transportation = Amount paid × Rate of Customs

$$= (6400 + 150) \text{ / } \times 10\% \text{/} = \text{BHD655./}$$

Total Payment = 6400/ + 655/   = BHD7055/

C- A Washing machine regularly priced at BHD120 is on sale for BHD105. **What is the Mark-down percentage?**

Solution:

Percentage of Mark-down = $\dfrac{\text{Mark-down}}{\text{Regular Price}} \times 100$

$$= \frac{120-105}{120} /// \times 100 \text{ / } = 12.5\% \text{/}$$

QUESTION FOUR:

14×1

14

A- Abdula invested BD 3,200 at 4% for 270 days. **Find the trade and exact simple interest.**

Solution:

Trade S.I : T.I = P × R × T ÷ 360

      = 3,200/ × 4% / × 270 / ÷ 360 /   = BHD 96/

Exact S.I : E.I = P × R × T ÷ 365

      = 3,200 / × 4%/ × 270 / ÷ 365/   = BHD 94.685/

B- A trader borrowed BHD5,000 at 6% simple interest per year to buy a new truck for his business. If he paid BHD900 interest, what was the duration (time) of the loan?

Solution (1):

    SI = BHD900   I = 6%   P = BHD5000

$$T = \frac{SI}{P \times R}$$

$$= \frac{900}{5000 \times 0.06} /// = 3 \text{ years}/$$

END OF ANSWER

إبراهيم حسن أماني