KINGDOM OF BAHRAIN
MINISTRY OF EDUCATION
INTERNAL EXAMS SECTION

60 / 60

RESIT EXAM 2023/2024

COURSE NAME: FINANCIAL MATHEMATICS   **TRACK:** توحيد المسارات

COURSE CODE: مال 111   **TIME:** 2 Hours

QUESTION ONE:

Choose the correct answer for the following questions:

2×6 / 12

1- Round 5777 to the nearest hundred is to be:(p.24)

   a) 5700   **b) 5800**
   c) 5750   d) 5770

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

2- Round 68,350 to first digit is to be: (p.25)

   a) 70,000   b) 65,000
   c) 68,000   d) 68,500

3- Round 250.459 to the nearest hundredths is to be: (p.26)

   a) 250.46   b) 250.45
   c) 250.40   d) 250.50

4- Round 74.265 to the nearest tenth is to be:(p.27)

   a) 74.000   **b) 74.3**
   c) 74.270   d) 74.2

5- You have BHD820 and converted to Japanese Yen is to be:(p.31)
   ÷(Selling price of ¥ =BHD 0.0025676) & (Buying price ¥ = BHD0.0024865)

   a) ¥319364.387   b) ¥329780.8164
   c) ¥392780.8164   d) ¥391364.387

6- You have JOD2500 and converted to BHD is to be:(p.31)
   (Selling price of JOD =BHD 0.5402315) & (Buying price JOD = BHD0.5221883)

   a) BHD1350.579   b) BHD1530.579
   c) BHD1035.471   **d) BHD1305.471**

QUESTION TWO:

A- A Salesman is paid a basic salary of BHD 450 per month, followed by a graduated commission of 1% on the first BHD6,000 of sales and 2% thereafter. **What will he earn in a month when total sales BHD18,000?**

34×0.5

17

Solution: (p.48)

Commission on the first BD6,000 = 1% / × 6,000 / = BHD 60 //

Balance = 18,000 / - 6,000 / = BHD 12,000 /

Commission on the balance = 2% / × 12,000 / = BHD240 //

Total (gross) Salary = Basic wage + Commission

= 450 / + 60 / + 240 / = BHD 750. //

B- Mohammed work in a factory and his total pay for last month was BD600. if his total production for that month was 400 pieces. **Find his piece rate.**

Solution:

Total wage pay = Number produced × Rate per piece

Rate per piece = 600 /÷ 400 / = BD1.5 //

C- Fawaz worked on the hourly system in ABC, Est. for BHD 7.500 per hour and deducted BHD80 for the housing bank loan. If the working hours during the month of July 2023 are as follows:

- 48 hours of normal work.
- 12 hours overtime during the day.

Calculate total wage of September 2022.

Solution:

Regular Wage = 48 / × 7.500 / = BHD360.000 //

Over Time of during the day = 12 / × 7.500 / × 1.25 / = BHD 112.500 //

Total Wages = Regular Wage + Overtime − Deduction

= 360.000 / + 112.500 / − 80 / = BHD 392.5 //

QUESTION THREE:

15×1

15

A- Alhuda shop gave a discount to the customer at a rate 20%. If the customer paid BHD 160. What is the list price of the item?

Solution: (p.71)

$$\text{List price} = \frac{160}{100\% - 20\%} /// = BHD200/$$

B- Date received: March 9, 2022; date paid: March 11, 2022.

Balance	2000	000
Freight	50	000
Total BHD	**2050**	**000**
Date:	05 March 2022	
Terms:	2/10, n/30	

Find the amount paid for the previous invoice.

Solution:

The 2% discount applies since payment was made within 10 days of receipt of goods.

$$\text{Cash Discount} = (\text{Net price} - \text{Freight}) \times \text{Cash discount}$$
$$= (2050 / - 50 /) \times 2\% / = BHD \ 40/$$
$$\text{Total Paid} = \text{Net Price} - \text{Cash Discount}$$
$$= 2050 / - 40 / = BHD2010 /$$

C- A retailer's cost for TV set was BHD140. TV set was sold for BHD175. What was the mark-up percentage based on cost?

Solution:

$$\text{Percentage of Mark-up} = \frac{\text{Selling Price} - \text{Cost}}{Cost} \times 100$$

$$= \frac{175 - 140}{140} /// = 25\%/$$

QUESTION FOUR:

A- Fahad deposited BHD6,000 at 3% annually from 4th May 2022 to 5th November 2022. Find the trade simple interest.

Solution:

T_1 = 4th May 2022 from timetable = 124 days//

T_2 = 5th November 2022 from timetable = 309 days//

T = 309 – 124 = 185 days./

Trade S.I: T.I = P × R × T ÷ 360

= 6,000 / × 3% / × 185 / ÷ 360 / = BHD 92.500//

B- Find the Principal of a 4 years loan, lent at 5% interest per year. The total simple interest is BHD 800.

Solution:

SI = BHD800   I = 5%   T = 4 years

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

$$= \frac{800}{0.05 \times 4} /// = BHD4000//$$

Timetable

Days of month	31 Jan	28 Feb	31 Mar	30 Apr	31 May	30 Jun	31 Jul	31 Aug	30 Sep	31 Oct	30 Nov	31 Dec
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29	0	88	119	149	180	210	241	272	302	333	363
30	30	0	89	120	150	181	211	242	273	303	334	364
31	31	0	90	0	151	0	212	243	0	304	0	365

END OF ANSWER