ACAF National Examination - Sample Examination Solution (Exhibits)

	A	B	C	D	E	F	G	H	I	J	K
1	**Exhibit I**										
2	Machine										
3	Purchase July 1, 2013	350,000									
4	Depreciation taken	(105,000)	(350,000 / 10 × 3 years)								
5	Balance at June 30, 2016	245,000									
6											
7	Purchase July 1, 2013	350,000									
8	Depreciation should have been	(112,500)	(350,000 – 50,000) / 8 years × 3 years								
9	Balance at June 30, 2016, should be	237,500									
10											
11	Difference	7,500									
12											
13	DR Accumulated depreciation	7,500									
14	CR Retained earnings		7,500								
15											
16											
17	Depreciation for 2017										
18											
19	DR Depreciation expense	37,500									
20	CR Accumulated depreciation		37,500								
21	(350,000 – 50,000) / 8 years										
22											
23											
24	JE to expense repairs and maintenance										
25	DR Repairs and maintenance expense	8,500									
26	CR Capital assets		8,500								
27											
28											
29	JE to adjust supplies inventory										
30	DR Supplies expense	2,290									
31	CR Supplies inventory		2,290								
32	(7,350 – 9,640)										
33											
34											

	A	B	C	D	E	F	G	H	I	J	K
35	**Exhibit II**										
36	**Hangla Shoes Inc. Franchise**										
37	**Five-year earnings projection**										
38	(in thousands of dollars)										
39											
40	**Purpose:**	To prepare an earnings projection for the franchise.									
41											
42							**Year**				
43					**1**	**2**	**3**	**4**	**5**		**Total**
44											
45	Sales		**A**		$ 300	$ 400	$ 500	$ 600	$ 700		$ 2,500
46	Cost of sales	50%	of A		150	200	250	300	350		1,250
47	Gross profit				150	200	250	300	350		1,250
48											
49	Expenses										
50	Advertising	1%	of A		3	4	5	6	7		25
51	Rent ($50 base)				50	50	50	50	50		250
52	Rent (plus 2% of sales if > $400)				0	0	10	12	14		36
53	Wages (employees: one in Year 1, two in Year 3)				36	36	72	72	72		288
54	Amortization of leasehold improvements ($40,000 over five years)				8	8	8	8	8		40
55	Franchise fee ($60,000 over five years)				12	12	12	12	12		60
56	Other operating costs				14	14	14	14	14		70
57					123	124	171	174	177		769
58											
59	Operating profit before royalties				27	76	79	126	173		481
60											
61	Royalty on sales	5%	of A		15	20	25	30	35		125
62											
63	Earnings before interest, taxes and amortization				$ 12	$ 56	$ 54	$ 96	$ 138		$ 356
64											
65	**Conclusion:**										
66	Projected earnings are positive; however, no provision has been made for owner compensation, interest, corporate income taxes and inflation.										
67											
68											

	A	B	C	D	E	F	G	H	I	J	K
69	**Exhibit III**										
70					**Hangla Shoes Inc. Franchise**						
71					**Cost behaviour and break-even analysis**						
72					(in thousands of dollars)						
73											
74	**Purpose:**	To reorganize costs from Exhibit II into fixed and variable categories and calculate the break-even point.									
75											
76							**Year**				
77					**1**	**2**	**3**	**4**	**5**		**Total**
78											
79	Sales (from Exhibit II)		**A**		$ 300	$ 400	$ 500	$ 600	$ 700		$ 2,500
80											
81	Variable costs										
82	Cost of sales	50%	of A		150	200	250	300	350		1,250
83	Advertising	1%	of A		3	4	5	6	7		25
84	Royalty on sales	5%	of A		15	20	25	30	35		125
85	Variable rent (if sales > $400)	2%	of A		0	0	10	12	14		36
86		58%			168	224	290	348	406		1,436
87											
88	Fixed costs										
89	Base rent				50	50	50	50	50		250
90	Wages (employees)				36	36	72	72	72		288
91	Amortization of leasehold improvements ($40,000 over five years)				8	8	8	8	8		40
92	Franchise fee ($60,000 over five years)				12	12	12	12	12		60
93	Other operating costs				14	14	14	14	14		70
94					120	120	156	156	156		708
95											
96	Operating profit				12	56	54	96	138		356
97											
98											

	A	B	C	D	E	F	G	H	I	J	K
99	**Break-even point**										
100	Expected fixed costs				$ 120	$ 120	$ 156	$ 156	$ 156		
101	Divided by contribution margin %				44%	44%	42%	42%	42%		
102					$ 273	$ 273	$ 371	$ 371	$ 371		
103											
104	**Break-even point including $50,000 target profit**										
105	Expected fixed costs				$ 120	$ 120	$ 156	$ 156	$ 156		
106	Target profit (Nancy's salary)				50	50	50	50	50		
107					170	170	206	206	206		
108	Divided by contribution margin %				44%	44%	42%	42%	42%		
109					$ 386	$ 386	$ 490	$ 490	$ 490		
110											
111	**Conclusion:**										
112	The break-even point is $386,000 in sales for Years 1 and 2, and increases to $490,000 in Year 3 after including Nancy's salary.										
113											
114											
115	**Exhibit IV**										
116		**Hangla Shoes Inc. Franchise**									
117		**Financing required**									
118											
119	**Purpose:**	To determine the amount of startup financing required.									
120											
121	Initial franchise fee			$ 60,000							
122	Leasehold improvements			40,000							
123	Initial inventory			110,000							
124	Additional inventory (based on other franchisees' experience)			20,000							
125	Total investment required			230,000							
126											
127	Funds available ($60,000 + $50,000)			(110,000)							
128	Additional financing required			$ 120,000							
129											
130	**Conclusion:**										
131	Nancy will require $230,000 to start the franchise, which means she will need an additional $120,000 of financing beyond her existing savings.										