16 OCT 2008

BRARE

EASTERN UNIVERSITY, SRI LANKA

SECOND YEAR FIRST SEMESTER EXAMINATION IN ACRICULTURE- 2008, only AEC 2101: APPLIED FARM MANAGEMENT (PRACTICAL)

Answer All questions

Time: 3 Hours

01. You are given the following information extracted from "ABC Farms" on 31.12.2007.

Item	Rupees		
Total machine loan due	50,000		
Total real estate loan due	120,000		
Account payable	5000		
Account receivable	6000		
Grain in storage.	20,800		
Land value			
Machine loan principle due in 12 month	10,000		
Real estate loan principle due in 12 month	10, 000		
Cash in bank			
Accrued interest payable	9000		
Original machinery cost	110, 000		
Accumulated machinery depreciation40, 000			
Original grain bin cost			
Accumulated depreciation in grain bin			

- a) Organize a Balance Sheet for the year ended at 31.12.2007.
- b) Analyze the liquidity using current ratio.
- c) Analyze the solvency and interpret the results.

(Contd. - 2)

- 02. a) Briefly discuss the causes of depreciation.
 - b) Assume that a new machine is purchased on January 1st for Rs.10,000 and given salvage value of Rs. 2000 for 10 years of useful life.

What would be the annual depreciation for the first 3 years under each depreciation method given below.

- i. Straight line method.
- ii. Sum- of-the year digit method.
- iii. Double declining balance method.
 - 03. From one (01) acre grain enterprise farm the following information has been extracted.

Item 000,08	Unit	Quantity	Price (Rs)/unit
Seed	kg	46	326.00
Machinery interest	acre	1	10,600.00
Chemicals	acre	1	7,500.00
Oil and fuel	acre	1	9,500.00
Machinery repairs	acre	1	6,400.00
Grain yield 000.01	kg	600	240.00
Fertilizer 000 01	kg	90	216.60
Land charge	acre	1	50,000.00
Labors	hr	2	800.00
Interest	Rs	369.50	10%
Machinery depreciation	acre	letisioogab viss	14,200.00
Machinery taxes & insurance	acre	1	2,500.00
Miscellaneous overhead	acre		4,000.00

- a) You are required to find out Total Revenue, Gross Margin, Total Expenses, Profit and prepare the crop enterprise budget.
- b) Evaluate whether it is a profitable enterprise or not.
- c) Interpret and analyze the Enterprise Budget.

(Contd. 3)

4. A farm manager has to select the amount of water to apply to one hectare of corn. Fill in the following table and determine the profit maximizing irrigation level for corn production.

(Water at Rs 3 per ha- cm and corn at Rs 2.5 per kg)

Irrigation	Corn	Marginal	Marginal	Marginal	Marginal	Marginal
water (ha- cm)	yield per ha (kg)	Physical Product (MPP)	Value Product (MVP)	Input Cost (MIC)	Revenue (MR)	Cost (MC)
10	104.0				29-3	
12	116.8	4			36-4	
14	128.6				43-5	
16	138.2	in agaittall	Te processor.	Lastras Inc	dey photosas	rates est
18	144.8	isod ibi sin	Cod series		lio bu'i s	
20	149.0	physical		da présit abi	diam egame	unitaite
22	151.8	60.				
24	153.6	laylay leun	A Secrete as			189Y
26	154.2		- 7230.00		oya ata	YK

- 5. a. What are the assumptions of Linear Programming?
- b. A cattle feeder has provided the following data on capital availability and feed supply and wants to know if it is more profitable to feed calves, yearlings or some combination of two. Find out the most profitable combination.

Item available	Calves	Yearlings	Total supply
Net return	Rs 20	Rs 18	
Feed requirement	101kg	69kg	20, 000kg
Capital requirement	Rs 150	Rs250	Rs 50, 000

(Contd. 4)

6. a. How do you form expectations using "Most likely method" and "Averages"? b. Find out the best estimate using the most likely method.

Possible paddy yields		(92 109 5.1-)	Number of years actual		
Mary	eginki Margina	Maryinal Ma	yield was in	this range	
Cost	0- 14		leo pyd9		
bw)	15- 21	Production 18	2		(m) -m)
	22- 28		5		
	29- 35		7	0.801	
	36-42		4		
	43- 51		1	128.6	
Total 1					

c. Find out the expected value for price of beef cattle using simple and weighted average methods, using the data given below.

Year	Average annual price(Rs)/ unit
5 Years ago	7230.00
4 Years ago	6960.00
3 Years ago	7160.00
2 Years ago	6530.00
1 Year ago	6110.00

Calve