

**E-Practical Manual**  
**On**  
**Agricultural Finance and Cooperation**

**Course Code: AEC 211**  
**Credit Hours: 3 (2+1)**

[For B. Sc. (Ag.) Agriculture III<sup>rd</sup> Semester Students]



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E-Practical Manual on  
Agricultural Finance and Cooperation

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## **SYLLABUS**

- Determination of most profitable level of capital use.
- Optimum allocation of limited amount of capital among different enterprises.
- Analysis of progress and performance of cooperatives using published data.
- Analysis of progress and performance of commercial banks and RRBs using published data.
- Visit to a commercial bank, cooperative bank and cooperative society to acquire firsthand knowledge of their management, schemes and procedures.
- Estimation of credit requirement of farm business.
- Preparation and analysis of balance sheet.
- Preparation and analysis of income statement.
- Appraisal of a loan proposal.
- Techno- economic parameters for preparation of projects.
- Preparation of Bankable projects for various agricultural products and its value added products.
- Seminar on selected topics.

**Details of student**

Name of Student .....

ID. No. ....

Batch .....

Group .....

Session .....

Semester .....

Course Name .....

Course Code .....

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**CERTIFICATE**

This is to certify that Mr. /Ms. ....

ID. No.: ..... has completed the practical exercises of course (Course Name) ..... and Course No. .... as per the syllabus of B. Sc. (Ag.) Agriculture in ..... Semester in the year ..... in the respective laboratory/field of college.

**Date:**

**Course Instructor**

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### Chapter 1: Determination of the most profitable level of capital use.

Factor product relationship is a basic relationship between the factor (input) and product (output). It helps the producer to decide the level of output to be produced i.e., How much to produce? It would help us in finding not only the optimum level of output but also the optimum level of the variable inputs. The goal of this relationship is the optimization of resources.

**Exercise 1: From the data given below, calculate APP and MPP:**

Input (X)	Output (Y)
1	16
2	39
3	67
4	97
5	121
6	127
7	127
8	121
9	91
10	51

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**Exercise 2:** From the data given below, calculate APP and MPP:

Input (X)	Output (Y)
5	80
10	195
15	335
20	485
25	605
30	635
35	635
40	605
45	455
50	255

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**Exercise 3: From the data given below, calculate:**

- a) Variable cost and Total cost
- b) Average Fixed Cost, Average Variable Cost, Average Total Cost
- c) Marginal cost
- d) Profit

(Price of Output (Y) is Rs.4/unit, price of Input (X) is Rs 10/unit)

<b>Input (X)</b>	<b>Output (Y)</b>	<b>Total Fixed Cost (Rs)</b>
0	0	2000
10	250	2000
20	550	2000
30	875	2000
40	1125	2000
50	1275	2000
60	1350	2000
70	1375	2000
80	1375	2000
90	1350	2000
100	1300	2000

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### **Chapter 3: Analysis of progress and performance of cooperatives using published data.**

**Exercise No. 1:** Analyze the progress and performance of cooperative banks.

<b>Year</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Number of societies	46220	89521	90277	101295	90956	93040	92787	93365	95593	95236
Total Members	56819	122224	106134	127644	110066	130118	121086	127320	131233	130545
Total no of Borrowers (in 000)	27315	57800	47712	52372	42627	48079	49856	46212	52015	50688
Paid up capital (crores)	2784	6826	7003	9465	8006	9787	11066	12279	14120	14140
Total Reserves (crores)	2250	5348	6415	8563	6666	9133	10605	12160	18858	16798
Total Deposits (crores)	13373	35678	37280	54761	37559	81893	84614	101063	115882	119630
Total Borrowings (crores)	21373	49072	48224	97562	81383	95834	99978	112688	124829	128331
Total Working Capital (crores)	41464	130312	109383	173562	148937	212427	223709	201302	239965	243561
Total Loans Issued (crores)	27463	72880	85294	122824	98438	171418	159048	180822	200676	207320
Total Loans Outstanding (crores)	28513	80485	79502	103460	91169	130052	147224	158485	170457	169628
Total Demand (crores)	31976	92555	85755	101780	95924	155851	159624	169781	200462	196748
Total Collection (crores)	22758	54269	64488	76703	70344	126219	123833	139892	147169	148832
Overdue	9217	38280	21426	25232	25578	29630	35789	29887	53291	47913

Work out CAMEL indicators for Cooperative banks on the basis of data given in the table. CAMEL model is basically an approach widely used to measure the performance of a banking unit. CAMEL is an abbreviation stands for Capital adequacy, Assets quality, Management efficiency, Earning quality and Liquidity.









**Exercise 2.** Analyze the progress and performance of a commercial banks using the financial data given below. Work out CAMEL indicators.

**Financial Indicators of Commercial Banks in India**

<b>Year</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
No. of Banks	149	148	147	147	146	155	173	167	167	170
Deposits	25846168	111114481	100926513	94338380	85331730	74296772	64535485	56158743	47469196	40632011
Advances	87459775	81161090	78964670	73881600	67352132	58797733	50735592	42974875	34967200	29999239
Branches	42336	48482	54628	60774	67562	72906	78215	85262	92114	97649
Capital										
Investment	295893	83044	47037	-35559	63170	-17136	38305	33443	-13627	46148
Total assets	152532925	141746065	131292882	120369921	109759285	95899521	83208903	71833978	60269252	52386422
Total liabilities	152532925	141746065	131292882	120369921	109759285	95899521	83208903	71833978	60269252	52386422
Net profit	-324377	438995	341482	890778	809127	911647	816583	703313	571092	527499
NPA	3206163	2051618	1766589	804827	666446	495857	405506	315788	306806	207347
Cash Deposit Ratio	6.19	6.12	5.59	5.60	5.53	5.05	5.79	8.17	7.71	7.32
Credit Deposit Ratio	74.16	73.04	78.24	78.32	78.93	79.14	78.62	76.52	73.66	73.83
Investment - Deposit Ratio	34.99	32.87	32.97	31.56	33.79	35.17	34.62	34.25	36.42	35.68
No. of Workers	1335702	1300008	1256085	1180069	1150281	1096980	1048520	970782	950178	937445



**Chapter 5: Visit to a Commercial Bank, Cooperative Bank/ Cooperative society to acquire first- hand knowledge of their management, schemes and procedures.**

**Exercise 1.** Visit to a commercial bank and collect information using the following survey schedule:

- a) Name of the bank: \_\_\_\_\_
- b) Branch: \_\_\_\_\_
- c) Name of district: \_\_\_\_\_
- d) Pin code: \_\_\_\_\_
- e) Number of employees in branch: \_\_\_\_\_
- f) Financial services provided to farmers:
  - (i) \_\_\_\_\_
  - (ii) \_\_\_\_\_
  - (iii) \_\_\_\_\_
  - (iv) \_\_\_\_\_
  - (v) \_\_\_\_\_
  - (vi) \_\_\_\_\_
  - (vii) \_\_\_\_\_
- g) Insurance schemes for farmers:
  - (i) \_\_\_\_\_
  - (ii) \_\_\_\_\_
  - (iii) \_\_\_\_\_
  - (iv) \_\_\_\_\_
  - (v) \_\_\_\_\_
  - (vi) \_\_\_\_\_
  - (vii) \_\_\_\_\_

**Documents required for availing insurance scheme by the farmers:**

- (a) \_\_\_\_\_
  - (b) \_\_\_\_\_
  - (c) \_\_\_\_\_
  - (d) \_\_\_\_\_
  - (e) \_\_\_\_\_
- h) Loans provided to farmers:
  - (i) \_\_\_\_\_
  - (ii) \_\_\_\_\_

- (iii) \_\_\_\_\_
- (iv) \_\_\_\_\_
- (v) \_\_\_\_\_
- (vi) \_\_\_\_\_
- (vii) \_\_\_\_\_

**Documents required for availing loan by the farmers:**

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_
- (d) \_\_\_\_\_
- (e) \_\_\_\_\_

Download the annual report of banks and note down the following:

<b>Particulars</b>	<b>Amount</b>
<b>ASSETS</b>	
(a) Cash and Balances with Reserve Bank of India	
(b) Balances with Banks and money at call and short notice	
(c) Investments	
(d) Advances	
(e) Fixed Assets	
(f) Other Assets	
<b>TOTAL</b>	
<b>CAPITAL AND LIABILITIES</b>	
(a) Capital	
(b) Reserves & Surplus	
(c) Deposits	
(d) Borrowings	
(e) Other Liabilities and Provisions	
<b>TOTAL</b>	
<b>DEPOSITS</b>	
(a) Demand Deposits	
i) From Banks	
ii) From Others	
(b) Savings Bank Deposits	
(c) Term Deposits	
i) From Banks	
ii) From Others	
(d) Deposits of Branches in India	
(e) Deposits of Branches outside India	
<b>TOTAL</b>	
<b>CAPITAL</b>	
(a) Authorised Capital	
(b) Issued Capital	
(c) Paid-up Capital	

<b>TOTAL</b>	
<b>RESERVES &amp; SURPLUS</b>	
(a) Statutory Reserves (b) Capital Reserves (c) Share Premium (d) Investment Fluctuation Reserve (e) Foreign Currency Translation Reserve (f) Revenue and Other Reserves (g) Revaluation Reserve	
<b>TOTAL</b>	
<b>OTHER FINANCIAL INDICATORS</b>	
(a) _____	
(b) _____	
(c) _____	
(d) _____	
(e) _____	
(f) _____	
(g) _____	
(h) _____	
(i) _____	
(j) _____	
(k) _____	
(l) _____	
<b>BOARD OF MANAGEMENT</b>	
(a) _____	(f) _____
(b) _____	(g) _____
(c) _____	(h) _____
(d) _____	(i) _____
(e) _____	(j) _____
<b>AREA OF OPERATION</b>	
(a) _____	
(b) _____	
(c) _____	
(d) _____	
(e) _____	

**Chapter 6: Visit to a District Central Co-operative Bank (DCCB) to study its role, functions and procedures for availing loan- Fixation of Scale of Finance.**

**Exercise 1.** Visit to a DCCB and collect information using the following survey schedule:

(a) Name of the bank: \_\_\_\_\_

(b) Branch: \_\_\_\_\_

(c) Area of operation: \_\_\_\_\_

(d) Pin code: \_\_\_\_\_

(e) Number of employees in branch: \_\_\_\_\_

(f) Financial services provided by DCCB:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

(iv) \_\_\_\_\_

(v) \_\_\_\_\_

(vi) \_\_\_\_\_

(vii) \_\_\_\_\_

i) Non-credit services provided by DCCB:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

(iv) \_\_\_\_\_

(v) \_\_\_\_\_

(vi) \_\_\_\_\_

(vii) \_\_\_\_\_

j) Type of loans provided to farmers, societies, PACS, etc.:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

(iv) \_\_\_\_\_

(v) \_\_\_\_\_

(vi) \_\_\_\_\_

(vii) \_\_\_\_\_

**Documents required for availing loan:**

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_
- (d) \_\_\_\_\_
- (e) \_\_\_\_\_

Download the annual report of banks and note down the following:

Particulars	Amount
<b>ASSETS</b>	
a) Cash balance	
b) Balances with Banks and money at call and short notice	
c) Advances	
d) Fixed Assets	
e) Other Assets	
<b>TOTAL</b>	
<b>CAPITAL AND LIABILITIES</b>	
a) Capital	
b) Reserves & Surplus	
c) Deposits	
d) Borrowings	
e) Other Liabilities and Provisions	
<b>TOTAL</b>	
<b>DEPOSITS</b>	
a) Demand Deposits	
i) From Banks	
ii) From Others	
b) Savings Bank Deposits	
c) Term Deposits	
i) From Banks	
ii) From Others	
<b>TOTAL</b>	
<b>CAPITAL</b>	
a) Authorised Capital	
b) Issued Capital	
c) Paid-up Capital	
<b>TOTAL</b>	
<b>Members of DCCB</b>	
(a) _____	(f) _____
(b) _____	(g) _____
(c) _____	(h) _____
(d) _____	(i) _____
(e) _____	(j) _____

**OTHER INFORMATION**

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### Chapter 7: Estimation of Credit Requirement of Farm Business

**Exercise 1.** Estimate the credit requirement of a farmer per ha using cost of cultivation approach.

S. No.	Item	Value (Rs/ Ha)	Working Capital (Rs.)
1.	Farm Buildings	2,00,000	-
2.	Machinery	10,00,000	-
3.	Land value	40,00,000	-
4.	Seeds	30,000	30,000
5.	Fertilizer	10,000	10,000
6.	Manure	5,500	5,500
7.	Insecticides and pesticides	1,000	1,000
8.	Human labour	25,000	25,000
9.	Machine labour	10,000	10,000

- (a) Interest on working capital = 7%
- (b) Depreciation rate of machinery = 10%
- (c) Depreciation rate of farm buildings = 7.5 %

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## **Chapter 8: Preparation and Analysis of Balance Sheet and Cash Flow Statement**

**Exercise 1.** Prepare a balance sheet for a farmer using information give below.

<b>Particulars</b>	<b>Amount (Rs.)</b>
Cash on hand	10,000
Savings in Bank	8,000
Value of grains ready for disposal	38,500
Livestock products (eggs, birds etc.)	60,000
Fruits vegetables fodder, and feed ready for sale	8,000
Value of bonds and shares to be realized in the same year.	2,000
Dairy cattle	10,000
Bullocks	9,000
Poultry birds	15,000
Machinery and equipment	15,000
Tractor	1,75,000
Land	6,00,000
Farm Buildings	25,000
Crop loans	8,000
Accounts payable	11,000
Hand loans	5,000
Money owed to input suppliers	25,000
Annual installments of MT and LT loans	19,000
Livestock loan (outstanding amount)	8,000
Machinery loan (outstanding amount)	15,000
Unsecured loan (outstanding amount)	10,000
Tractor loan (outstanding amount)	1,20,000
Orchard loan (Outstanding amount)	25,000
Unsecured loans (land development)	10,000



**Exercise 2:** Balance sheet of Mr. Gaurav Pratap’s farm is given below. Determine his financial performance using the data of balance sheet.

	<b>Assets</b>	<b>Amount (Rs.)</b>	<b>Liabilities</b>	<b>Amount (Rs.)</b>
<b>A.</b>	<b>Current Assets</b>		<b>Current Liabilities</b>	
(i)	Cash in hand	9,000	Cash borrowed from friends	20,000
(ii)	Cash in bank account	15,000	Crop loans	20,000
(iii)	Value of harvest	50,000	Final installment of MT loan	18,000
(iv)	Eggs from poultry	2,000		
	Sub total		Sub total	
<b>B.</b>	<b>Intermediate Assets</b>		<b>Intermediate Liabilities</b>	
(i)	Dairy cattle	12,000	Outstanding amount for solar pump loan	15,000
(ii)	Poultry birds	5,000	Outstanding amount for diesel pump loan	3,500
(iii)	Buffalo	15,000		
(iv)	Machinery	20,000		
	Sub total		Sub total	
<b>C.</b>	<b>Long term Assets</b>		<b>Long term Liabilities</b>	
(i)	Land	7,00,000	Outstanding amount for tractor loan	2,30,000
(ii)	Farm building	70,000	Outstanding amount for harvester loan	2,50,000
	Sub total			

Calculate:

- (a) Net worth
- (b) current ratio
- (c) intermediate ratio
- (d) net capital ratio
- (e) current liability ratio
- (f) debt equity ratio
- (g) Equity value ratio

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**Exercise: 3:** Quarterly cash flow summary of a company is given below. Work out the following:

- (a) Total Cash Income
- (b) Total Cash Expenses
- (c) Net Cash Farm Income
- (d) Total Capital Sales
- (e) Net Capital Flow
- (f) Total Other Income
- (g) Total Other Expenditure
- (h) Net Other Income Less Expenditure
- (i) Net Cash Farm Income
- (j) Net Capital Expenditure
- (k) Net Income
- (l) Net Other Income
- (m) Cash Surplus
- (n) Closing bank balance for all the four quarter's and for the whole year.

**Quarterly Cash flow summary for a company is given below**

Sl. No.	Particulars	Quarter				Yearly Total
		I	II	III	IV	
<b>Section I: Cash farm Income</b>						
<b>A.</b>	<b>Cash Income</b>					
<b>1.</b>	Crops					
<b>a.</b>	Paddy	8,500	0	10,500	0	
<b>b.</b>	Groundnut	8,000	7,000	0	0	
<b>c.</b>	Sugarcane	3,500	4,000	20,000	0	
<b>2.</b>	Broiler sales	4,000	6,500	0	0	
<b>3.</b>	Milk sales	2,150	2000	1,250	1,200	
<b>B.</b>	<b>Cash expenses</b>					
<b>5.</b>	Hired labour	1,800	1300	1,900	1,200	
<b>6.</b>	Hired bullock labour	1,700	2,000	3,000	1,400	
<b>7.</b>	Machinery: Fuel and repairs	1,500	1,200	1,800	1,100	
<b>8.</b>	Fertilizers	590	530	1,180	1,200	
<b>9.</b>	Other crop expenses (seed plant protection measures)	1550	500	500	0	
<b>10.</b>	Livestock, machinery, veterinary and marketing expenses	1250	1250	1150	1,350	

11.	Land rent	1,000	2,500	1500	0	
12.	Interest on current debts, intermediate and long-term debts	1,800	1,800	500	0	
13.	Other miscellaneous expenses	1,200	1,450	500	550	
14.	Land revenue, cess, surcharge, etc	0	0	0	0	
15.	Attached farm servant wages	500	1000	500	500	
<b>Section II: Capital Flow</b>						
<b>D.</b>	<b>Capital Sales</b>					
17.	Milch animals	--	4,150	4,000	---	
18.	Machinery sales	---	150	---	---	
19.	Total capital sales					
<b>E.</b>	<b>Capital Expenditure</b>					
20.	Improvement repair	1,000	3,200	---	--	4,200
21.	Capital expenditure					
<b>F.</b>	<b>Net capital flow (19-21)</b>					
<b>Section III: Other income flow</b>						
<b>G.</b>	<b>Other income</b>					
22.	Off farm income	---	1,000	500	--	
23.	Non-Farm income	5,000	5,000	5,000	5,000	
24.	Family living expenses	6,000	2,500	3,250	3,000	
25.	Principal payment to intermediate and long-term loans	2,000	3,000	---	---	
26.	Total other expenditure					
<b>I.</b>	<b>Net other income (23-26)</b>					
27.	Opening Bank Balance	800				
28.	Cash on hand	2000	8560	14,880	12,200	
29.	Net cash farm income (C)					
30.	Net Capital Flow (F)					
31.	Net other income (I)					
32.	Closing Bank Balance (27+28+29+30+31)					





## Chapter 9: Preparation and analysis of income Statement

**Exercise 1:** Mr. Ramesh has prepared an Income statement of his farm business. Workout the total cash receipts, total net capital gain, changes in inventory value, gross farm income, operating expenses, fixed expenses, total expenses and net farm income.

Receipts	Amount
<b>I. Cash Receipts</b>	
1. Wheat sales	8,500
2. Sugarcane sales	6,500
3. Groundnut sales	13,000
4. Milk sales	7,500
5. Poultry sales	13,000
6. Miscellaneous income	2,500
<b>Sub Total</b>	
<b>II. Capital Gain Income</b>	
1. Sale of purchased livestock	3,000
2. Sale of farm bred animal	3,000
3. Sale of farm machinery	3,000
<b>Sub Total</b>	
<b>III. Change in Inventory Value</b>	
1. Crop inventory	5,000
2. Livestock inventory	2,000
<b>Sub-Total</b>	
<b>Gross Farm Income</b>	
<b>Net Farm Income</b>	
Expenses	Amount
<b>I. Operating Expenses</b>	
1. Hired labour	3,000
2. Hired bullock labour	4,000
3. Fuel and repairs for machinery	2,500
4. Fertilizers	1,500
5. Other crop expenses (seed and spray of chemicals)	2,400
6. Livestock and veterinary expenses	1,000
7. Interest on current debt	600
8. Other miscellaneous expenses	700
<b>Sub Total</b>	
<b>II. Fixed Expenses</b>	
1. Land rent	3,000
2. Land revenue, cess and surcharge water charge etc.	800
3. Land development	4,200
4. Interest on intermediate and long-term loan	1,000
5. Equipment depreciation	1,500
6. Livestock inventory change	1,000
7. Imputed value of family labour	1,000
8. Building inventory change	600
9. Imputed value of operator's management	1,500
<b>Sub-Total</b>	
<b>Total Expenses</b>	



**Exercise 2:** Prepare a profit loss statement using the following information.

A farmer has 10 Ha of agricultural land. He has adopted Integrated Farming System on his farm in which he has crop enterprises, livestock, poultry. He had cultivated Paddy, Sugarcane and Groundnut during the year. He sold 35 quintals of Paddy @ Rs.1800 per quintal, 20 tonnes of sugarcane @ Rs. 1900 per tonne, and 15 quintals of groundnut @ Rs. 2,700 /qtl. He has 5 milch animals and 350 poultry birds. The milk sale fetched him Rs. 25,000 during the year. He sold the birds at the rate of Rs. 50 per bird. He sells out one milch animal for Rs. 15000. He disposes the old implements available in his farm for Rs. 1500. He has stored 17 quintals of paddy produced during the last year. He incurs a loss of Rs. 2,000 in selling the milch animal. His expenses are as follows:

- a) Attached farm servants Rs. 3,000
- b) Hired labour Rs. 7,000
- c) Interest on intermediate and Long term loans Rs. 2,000
- d) Marketing expenses Rs.1,900
- e) Livestock inventory Rs. 2,000
- f) Hired bullock labour Rs. 5,500
- g) Fertilizer purchased Rs. 3,000
- h) Water charges Rs. 1600
- i) Irrigation structure repairs Rs. 5,500
- j) Land tax and cess Rs. 4,000
- k) Maintenance of machinery Rs. 5,000
- l) Equipment depreciation Rs. 2,500
- m) Depreciation on buildings and Implements Rs. 1850
- n) Interest on current debts Rs. 2,200
- o) Other miscellaneous expenses Rs. 3,000

Calculate the following:

- (h) Total cash receipts
- (i) Total net capital gain
- (j) Changes in inventory value
- (k) Gross farm income
- (l) Operating expenses
- (m) Fixed expenses
- (n) Total expenses
- (o) Net farm income

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**Exercise 3:** Prepare an income statement of farm using the following information and test the profitability of the farm.

- a) Expenditure on hired labour Rs. 2500
- b) Hired bullock labour Rs. 3500
- c) Fuel and other expenses for machineries Rs. 3000.
- d) Land rent Rs. 3500
- e) land tax, cess and surcharge, water charge etc. Rs. 1000
- f) Land development expenses Rs. 4000
- g) Fertilizer expenses Rs. 1000
- h) other crop expenses Rs. 1200
- i) livestock and veterinary expenses Rs. 500
- j) interest on current debt Rs. 1200
- k) Other miscellaneous expenses Rs. 1000
- l) Interest on intermediate and long-term loan Rs. 1500
- m) Equipment depreciation Rs 1700
- n) Imputed value of family labour Rs. 2000
- o) Building depreciation Rs. 1000
- p) Paddy sales Rs. 17500
- q) Sugarcane sales Rs. 7000
- r) Teak thinning materials sale Rs. 10000
- s) milk sales Rs. 7500
- t) poultry sales Rs. 14000
- u) miscellaneous income Rs. 2000
- v) Sale of purchased milch animal Rs. 2500
- w) Sale of farm bred animal Rs. 3000
- x) sale of machinery Rs. 2500
- y) crop inventory Rs. 5000 and
- z) Livestock inventory Rs. 2000

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## Chapter 10: Exercise on Financial Ratio Analysis

**Exercise 1:** Balance sheet of Mr. Divyanshu Singh’s farm is given below.

	Assets	Amount (Rs.)	Liabilities	Amount (Rs.)
<b>A.</b>	<b>Current Assets</b>		<b>Current Liabilities</b>	
(i)	Cash in hand	11,000	Cash borrowed from friends	25,000
(ii)	Cash in bank account	12,000	Crop loans	23,000
(iii)	Value of harvest	55,000	Final installment of MT loan	20,000
(iv)	Eggs from poultry	4,000		
	Sub total		Sub total	
<b>B.</b>	<b>Intermediate Assets</b>		<b>Intermediate Liabilities</b>	
(i)	Dairy cattle	20,000	Outstanding amount for solar pump loan	35,000
(ii)	Poultry birds	7,000	Outstanding amount for diesel pump loan	10,000
(iii)	Buffalo	17,000		
(iv)	Machinery	23,000		
	Sub total		Sub total	
<b>C.</b>	<b>Long term Assets</b>		<b>Long term Liabilities</b>	
(i)	Land	10,00,000	Outstanding amount for tractor loan	2,70,000
(ii)	Farm building	95,000	Outstanding amount for harvester loan	2,70,000
	Sub total			

Calculate various test ration to determine the financial position of the farm.

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**Exercise 2:** Prepare an income statement of farm using the following information and test the profitability of the farm.

- a) Expenditure on attached labour Rs. 1500
- b) Hired bullock labour Rs. 3500
- c) Fuel and other expenses for machineries Rs. 4000.
- d) Land rent Rs. 3000
- e) land tax, cess and surcharge, water charge etc. Rs. 700
- f) Land development expenses Rs. 4000
- g) Fertilizer expenses Rs. 1000
- h) other crop expenses Rs. 1200
- i) livestock and veterinary expenses Rs. 500
- j) interest on current debt Rs. 1200
- k) Other miscellaneous expenses Rs. 1000
- l) Interest on intermediate and long-term loan Rs. 1500
- m) Equipment depreciation Rs 1700
- n) Imputed value of family labour Rs. 2000
- o) Building depreciation Rs. 1000
- p) Paddy sales Rs. 17500
- q) Sugarcane sales Rs. 7000
- r) Teak thinning materials sale Rs. 10000
- s) milk sales Rs. 7500
- t) poultry sales Rs. 14000
- u) miscellaneous income Rs. 2000
- v) Sale of purchased milch animal Rs. 2500
- w) Sale of farm bred animal Rs. 3000
- x) sale of machinery Rs. 2500
- y) crop inventory Rs. 5000 and
- z) Livestock inventory Rs. 2000

Calculate the financial test ratios to determine the financial position of the farm business

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**Exercise 2:** On the basis of information given below, calculate payback period and suggest the most suitable project.

a) Initial investment in each project is Rs. 50,000

<b>Year</b>	<b>Cash flow of project A (Rs.)</b>	<b>Cash flow of project B (Rs.)</b>
0	-50,000	-50,000
1	10,000	5,000
2	10,000	5,000
3	10,000	5,000
4	10,000	5,000
5	10,000	5,000
6	10,000	5,000
7	10,000	5,000
8	10,000	5,000
9	10,000	5,000
10	10,000	5,000

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**Exercise 4:** On the basis of the given information, calculate net present worth and B:C ratio.

(Discount rate = 7%)

<b>Project Life (Years)</b>	<b>Cost</b>	<b>Gross Returns</b>
1	25000	6000.00
2	0	5000.00
3	0	4000.00
4	0	7000.00
5	5000	4000.00
6	4000	2000.00
7	1000	1000.00
8	3000	8000.00
9	2000	9000.00
10	1000	10000.00

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## Chapter 14: Preparation of bankable projects/ farm Credit proposals and appraisal

**Exercise 1:** Mr. Venkatesh plans to obtain financial support in the form of credit from a bank for growing crop A. He has worked out fixed cost, variable cost, gross income and net income that will be incurred if the crop is grown in 1 Ha area.

Item wise Breakup of Cost of Production (Rs. per Ha.)		Amount (Rs.)
<b>Operational Cost</b>		<b>48237.28</b>
<b>Human Labour</b>	Family	15459.74
	Casual	3207.81
	<b>Total</b>	18667.55
<b>Machine Labour</b>	Hired	3763.95
	Owned	1682.90
	<b>Total</b>	5446.85
<b>Seed</b>		13207.63
<b>Fertilizer &amp; Manure</b>	Fertilizer	1938.35
	Manure	2849.32
	<b>Total</b>	4787.67
<b>Insecticides</b>		1251.11
<b>Irrigation Charges</b>		4320.19
<b>Interest on Working Capital</b>		556.28
<b>Fixed Costs</b>		<b>19412.98</b>
Rental Value of Owned Land		16744.25
Rent Paid For Leased-in-Land		0.00
Land Revenue, Taxes, Cesses		14.89
Depreciation on Implements & Farm Building		2027.61
Interest on Fixed Capital		626.23
<b>Total Cost [11+12]</b>		<b>67650.26</b>

### Returns per Ha

S. No.	Particulars	Amount (Rs.)
1	Main product	90693.74
2	By product	9751.67
3	Gross return	100445.41
4	Cost of cultivation	67650.26
5	Net return	32,795.15

Bank loan to be applied = Rs. 60,000, Repayment period = 3 years, Rate of interest = 7%

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## **Chapter 16: Seminar on selected topics**

Seminar will be presented on following topics:

SWOT Analysis	Agricultural Finance Corporation
IMF	Processing Cooperatives
NABARD	Primary Agricultural Cooperative Credit Societies
Kisan Credit Card	Comprehensive Crop Insurance Scheme
NAFED	Deposit Insurance and Credit Guarantee Corporation of India
Single Window System of Credit	Agricultural Refinance and Development Corporation
Farmer's Service Cooperative Societies	Large Sized Adivasi Multipurpose Cooperative Societies
Self Help Group	Multi Agency Approach
Nationalisation of Banks	International Cooperative Alliance
Cooperative Warehousing	Farmer Producer Organisation
State Bank of India	Primary Land Development Bank
Integrated Rural Development Programme	Cooperative movement in India
Crop Loan System	National Cooperative Union of India
National Agriculture Insurance Scheme	Balance of Payments
Brief history of cooperative development in India	District Credit Plans
World Bank	State Cooperative Banks
Processing Cooperatives	District Central Cooperative Banks
National Cooperative Development Corporation	Reserve Bank of India
Village Adoption Scheme	Role of HDFC and ICICI in Agricultural Finance
Punjab National Bank	Service Area Approach
Central Land Development Bank	Lead Bank Scheme
Farmers Service Societies	Farming Cooperatives
Balance of Trade	Small Farmers Development Agency
Regional Rural Banks	