Model Answer Paper

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE

SEMESTER END THEORY EXAMINATION

B.Sc. (Hons.) Agriculture

Semester	**: VI (NEW)**	**Academic Year : 2023-24**	
Course No.	**: ECON-365**	**Title : Farm Management, Production & resource economics**	
Credits	**: 1+1=2**		
Date & Day	**:**	**Time :**	**Marks : 40**

Note: 1) Solve **ANY EIGHT** Questions from SECTION "A"
2) All questions from SECTION "B" are compulsory.
3) All questions carry equal marks.
4) Draw neat diagrams wherever necessary.

SECTION 'A'

Q.1. Define farm management and enlist basic principles of farm management and explain any one of them with example. **(4)**

Ans: **Farm Management** – It is a science which deals with judicious decisions on the use of scare resources having alternative uses to obtain the maximum profit and finally satisfaction on a continuous basis from the farm as a whole. (1)

Basic principles of farm management (3)

1) Principle of variable proportions or law of diminishing marginal returns.
2) Cost Principle
3) Principle of substitution between input (least cost principle)
4) Equimarginal returns principle or opportunity cost principle
5) The principles of combining enterprises or products
6) Principle of comparative advantage
7) Time comparison principle. **(Explain any one of them in short)**

Q.2. What do you mean by types of farming? Explain the concept of diversified farming with their advantages & disadvantages. **(4)**

Ans: **Types of farming** - Methods of farming is according to land utilization and farming practices followed. (1)

Diversified Farming :- A farm on which no single product or source of income equals as much as 50% of the total receipt is called a diversified farming. (3)

Advantages :- 1) Better use of land, labour, and capital.

2) Business risk is reduced due to a crop failure and unfavorable market prices.

3) Regular & quicker returns are obtained from various enterprises.

Disadvantages :- 1) Marketing is insufficient 2) Because of varied jobs in diversified farming, farmers cannot effectively supervision.

3) Better equipping of the farm is not possible.

4) Due to diversity of operations, there may be chances to leaks in farm business may remains undetected.

Q.3. What is farm planning?. State and explain different steps in farm planning. **(4)**

Ans: **Farm planning** : It is a process of making decisions regarding the organization and operation of farm business, so that it results in a continuous maximization of net returns of a farm business. (1)

Steps in farm planning :- (3)

1) Preparing the farm map
2) Recording the history of the farm

3) Planning human and bullock requirement
4) Planning the land use and soil conservation practices
5) Planning live-stock programme.
6) Planning the marketing of products.

(Explain in short)

Q.4. Define iso-cost line. Determine the least cost combination by graphic method. (4)

Ans **ISO-Cost line :-** Indicating all possible combinations of two inputs which can be purchased with a given amount of investment fund. (1)

Since scope of the iso-cost line indicates the ratio of factor prices and slope of the iso-product curve represents the marginal rate of substitution, minimum cost for a given output will be indicated by the tangency of these iso-line. (3)

(draw graph and its explanation)

For this purpose isoquants and iso cost line, are drawn on the same graph for different levels of least cost production and total outlay combination on a graph will be,

Slope of iso- quant = slope of Iso-cost

Q.5. State and explain the characteristics of farm management. (4)

Ans : 1) Practical science
2) Profitability oriented
3) Integrating science
4) Broader field – jack of many trades & master of one.
5) Micro approach – no 2 farms are exactly identical. **(Explain in short)**

Q.6. Explain in detail about cost concepts. (4)

Ans: **Cost concepts. :-**

The cost of production of a crop is considered at three different levels viz.. cost- A cost-B and cost 'C'. The cost concepts generally followed in the studies of cost of cultivation as well a cost of production of crops are as under.

1) **Cost –A :** Actual paid- out costs by owner cultivator, inclusive of both cash and kind expenditure, which include cost of following items.

1) Hired human labour –	a) Male	b) Female
2) Bullock labour -	a) Owned	b) Hired
3) Machine labour -	a) Owned	b) Hired
4) Seeds	a) Owned	b) Purchased
5) Manures	a) Owned	b) Purchased
6) Fertilizers		
7) Insecticides and pesticides		
8) Irrigation charges		
9) Other purchased inputs (Bio-fertilizers, growth regulators, bio pesticides, etc)		
10) Land revenue, cesses and other taxes		
11) Depreciation on capital assets (Hand tools, implements and machinery)		
12) Interest on working capital		

2) **Cost –B** : Rental value of land and interest on fixed capital (considered as opportunity cost)

Cost B = Cost A Imputed rental value of owned land + imputed interest on owned fixed capital.

3) **Cost** – C : It is the total cost of production, which includes all cost items. Actual as well as imputed. The value of family labour is to be imputed and added to Cost-B to work out Cost-C. Also managerial or supervision charges are added in Cost-B @ 10% of Cost-A.

Therefore, Cost C= Cost B+ Imputed value of family human labour + Supervision charges @ 10% of cost-A)

(Give the formula of per ha cost of cultivation and per quintal cost of production)

Q.7. Define natural resource economics and explain the difference between Agricultural Economics and Natural resource economics. **(4)**

Ans Natural Resource Economics (NRE) : (1)

Natural resource economics deals with the supply, demand and allocation of the earth natural resource to increase sustainability. Main objective of NREs is to better understand the role of natural resources in the economy in order to develop more sustainable methods of managing those resources to ensure their availability to further generations. NRE includes Welfare theory, Pollution control, Resource exhaustibility, Environmental management, Resource extraction, Non-market valuation and Environmental policy. (3)

Particulars	Agricultural Economics	Natural Resource Economics
Main focus	Inputs like seeds, fertilizers	Resources like water, land, forests, fishery, environmental services, biodiversity
Type of cost	Marginal cost = additional cost due to additional output	Transaction cost = cost due to externality which arises due to lack of well-defined property rights, lack of information
Relevance of Market Price Value	Market price is relevant since markets for agricultural commodities are well defined	Valuation of natural resource is relevant since property rights are not definable
Market	Well defined market exists for agricultural commodities	Well defined markets do not exist for natural resource, due to lack of well-defined property rights and lack of information.
Stake holders	Farmers, Consumers, Government	Virtually everyone in the society is a stake holder sine nature resources are indispensable and there are no substitutes and all need them.
Policy term	Short term policies are relevant due to dynamic implications (Ex. Subsidy policy, price policy, credit policy)	Long term policy is a must for sustainable use of natural resources (like forest policy, water policy, land policy)
Scarcity	Scarcity of agricultural commodities is not relevant	Scarcity of natural resources is relevant due to the difficulty in their non-renewability in the short run

Q.8 Enlist the types of product-product relationship and write in detail about supplementary enterprise. **(4)**

Ans Types of product-product relationship (1.5)

1) Joint product
2) Complementary enterprise
3) Supplementary enterprise
4) Competitive enterprise
5) Antagonistic enterprise

Supplementary enterprise :-Those enterprise which do not compete in the use of resources. They are independent as the relationship of prices has nothing do with the almost to be produced. **(Explain with example & diagram)** (2.5)

Q.9 What is farm budgeting?. Explain types of farm budgeting. (4)

Ans Farm budgeting :-

A farm budget is a statement giving an estimate of all the farm receipts and expenses to be incurred for the agricultural year. (1)

Partial budgeting : (3)

1) Estimating returns from a part of the business
2) Growing variety in place of local variety
3) Growing crop with fertilizer instead of without fertilization
4) Weeding crop with mechanical weeder v/s manual labour
5) Ploughing field by tractor v/s bullock pair

Complete budgeting :

If refers to making out a plan of farm as a whole or for all decisions on one enterprise.

It involves complete reorganization of farm business

It is also called as full budgeting of a farm

The only disadvantages of complete budget are

i) It requires more time and efforts
ii) It requires more basic data in accurate farm.

Q.10 Write short notes : (Any two) (4)

Ans ~~1)~~ a) Objectives of production economics : (2)

1) To determine and define the condition which provide for optimum use of resources
2) To determine the extent to which the existing use of resources deviates from the optimum use.
3) To analyse the factors or forces which are responsible for the existing production pattern and resource use.
4) To explain means and methods for changing use of resources to the optimum levels.

b) ~~2)~~ Principle Characteristics of good farm plan : (2)

1) It should provide for efficient use of farm resources.
2) The plan should be flexible.
3) Simple and easily understood
4) Ensure balanced production programme.
5) Should aim at maintaining / improving soil fertility.
6) Should facilitate efficient marketing of farm products
7) It should take into account up-to-date technology.
8) It should avoid too risky enterprises.

c) ~~3)~~ Risk and uncertainty :- (2)

Risk - A situation when all possible outcomes are known for a given management decision and probability associated with each possible outcome is known. Risk is measured through probability concepts.

Uncertainty :- Uncertain situation prevails when all the possible outcomes of events are unknown, neither the probability nor the outcome are known. It is difficult to estimate.

Sources of Risk :- production risk, price risk / marketing risk, financial risk institutional risk. **(Short explanation)**

SECTION 'B'

Q.11 Fill in the blanks. (4)

1) a) Control of soil erosion is the example, comes under **Long range** planning. (1)

2) b) **Stock** resources are the resources, which can be stored for using in later period. (1)

3) c) In factor-factor relationship, isoquant is **Convex** to the origin (1)

4) d) Crop production with livestock raising is called as **Mixed** farming. (1)

Q.12 State true or false (4)

1) i) At any particular time only two expansion path is possible - **False** (1)

2) ii). Least cost combination is called as law of substitution - **True** (1)

3) iii). Farm management is a macro approach of study - **False** (1)

4) iv). Production function is a technical and mathematical relationship between output and inputs. - **True** (1)

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