

**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END THEORY EXAMINATION**

**B.Sc. (Hons.) Agriculture**

Semester : VI (New)	Term : II	Academic Year : 2022-23
Course No. : ECON-365	Title : Farm Management, Production and Resource Economics	
Credits : 2(1+1)		
Day & Date :	Time (hrs.) : 2 hrs.	Total Marks : 40


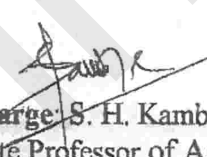
- Note :**
1. Solve ANY EIGHT questions from SECTION "A".
  2. All questions from SECTION "B" are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

<b>SECTION 'A'</b>		<b>Marking scheme</b>
Q.1	What is Farm Management? State objectives of Farm Management and explain its nature.	
<b>Ans:</b>	<b>Farm Management</b> is a science that deals with the organization and operation of a farm as a firm from the point of view of continuous maximum profit consistent with the family welfare of the farmer. Thus, in an environment where a farmer desires to achieve objectives like profit maximization and improvement of family standard of living with a limited stock of factors of production which can be put to alternative uses, FM is an essential tool.	1 mark
	<b>Objectives:</b>	1 mark
	<ol style="list-style-type: none"> <li>1. To examine existing production pattern and resource use on the farm.</li> <li>2. To identify factors responsible for existing production and resource use.</li> <li>3. To find out sub optimal use of resources, if any, by identifying the deviations in resource use.</li> <li>4. To find out the ways and means to optimally use the resources.</li> </ol>	
	<b>Nature of FM: (Explanation on any four points)</b>	2 marks
	<ol style="list-style-type: none"> <li>1. FM is a practical science</li> <li>2. FM is profitability oriented science</li> <li>3. FM is Integrating science</li> <li>4. FM focus micro-approach</li> <li>5. FM is considered as broader field</li> <li>6. FM is considers Farm unit for decision making</li> </ol>	
Q.2	Enlist different economic principles applied to Farm Management explain any one principle with example.	
<b>Ans:</b>	<b>Economic principles applied to Farm Management</b>	1 mark
	<ol style="list-style-type: none"> <li>1. Law of variable proportions or Law of diminishing returns</li> <li>2. Cost Principle</li> <li>3. Principle of factor substitution</li> <li>4. Principle of product substitution</li> <li>5. Principle of equi-marginal returns</li> <li>6. Time comparison principle</li> <li>7. Principle of comparative advantage</li> </ol>	
	<b>Student should explain any one principle with its statement, example, and diagram.</b>	3 marks
Q.3	State the different types of farming and explain specialized farming with its advantages and disadvantages.	
<b>Ans:</b>	<b>Types of farming:</b>	1 mark
	<ol style="list-style-type: none"> <li>1. Specialized farming</li> <li>2. Diversified farming</li> <li>3. Mixed farming</li> <li>4. Ranching</li> <li>5. Dry farming</li> </ol>	

	6. Irrigated farming <b>Specialized Farming: student should explain meaning, conditions for specialization, advantages and disadvantages.</b>	3 marks														
Q.4	State and explain law of decreasing returns with example. State the reasons for the operation of the law in agriculture.															
Ans:	<b>Law of decreasing returns:</b> Each additional unit of variable input when applied to the fixed factors adds less and less to the total product than the previous unit or preceding unit. OR Every additional or marginal unit of variable input adds less to total product than the previous unit i.e., addition to the total product/TPP is at a decreasing rate. <b>Student should explain above law with example, and diagram.</b> Reasons for the operation of the law in agriculture: (Any four) 1. Excessive dependence on weather. 2. Limited scope for mechanization. 3. Limited scope for division of labour 4. Agriculture uses larger proportion of land resource. 5. Soil gets exhausted due to continuous cultivation. 6. Cultivation is extended to inferior lands.	1 mark  2 marks 1 mark														
Q.5	What are the seven types of costs? Explain the relationship between average and marginal cost curves.															
Ans:	Seven types of cost: 1. Total fixed costs (TFC): 2. Total variable costs (TVC) 3. Total costs (TC) 4. Average fixed costs (AFC) 5. Average variable costs (AVC) 6. Total average costs (TVC) 7. Marginal costs (MC) <b>Student should explain relationship between AFC, AVC, TVC and MC with diagram</b>	1 mark  3 marks														
Q.6	What is farm budgeting? Differentiate between complete and partial budgeting.	1 mark														
Ans:	<b>Farm budgeting:</b> is a detailed physical and financial statement of a farm plan or of a change in farm plan over a certain period of time. Farm budgeting is a method of analyzing plans for the use of agricultural resources at the command of the decision-maker. In other words, the expression of farm plan in monetary terms through the estimation of receipts, expenses and profit is called farm budgeting. <b>Difference between partial and complete budgeting: (Any three points)</b> <table><tr><th>Complete budgeting</th><th>Partial budgeting</th></tr><tr><td>Complete budgeting accounts for drastic changes in the organization and operation of the farm.</td><td>While partial budgeting treats minor changes only.</td></tr><tr><td>All the available alternatives are considered in complete budgeting.</td><td>Whereas partial budget considers two or a few alternatives only.</td></tr><tr><td>Complete budgeting is used for estimating the results of entire organization and operation of a farm.</td><td>While partial budget helps only to study the net effects in terms of costs and returns of relatively minor changes on the farm.</td></tr><tr><td>The whole farm is considered as one unit.</td><td>It is adopted when a minor aspect of farm organization is touched.</td></tr><tr><td>Both fixed and variable costs are calculated for working out costs and returns.</td><td>Only variable costs are considered.</td></tr><tr><td>It requires more efforts and time for preparation.</td><td>It requires relatively less efforts and time for preparation.</td></tr></table>	Complete budgeting	Partial budgeting	Complete budgeting accounts for drastic changes in the organization and operation of the farm.	While partial budgeting treats minor changes only.	All the available alternatives are considered in complete budgeting.	Whereas partial budget considers two or a few alternatives only.	Complete budgeting is used for estimating the results of entire organization and operation of a farm.	While partial budget helps only to study the net effects in terms of costs and returns of relatively minor changes on the farm.	The whole farm is considered as one unit.	It is adopted when a minor aspect of farm organization is touched.	Both fixed and variable costs are calculated for working out costs and returns.	Only variable costs are considered.	It requires more efforts and time for preparation.	It requires relatively less efforts and time for preparation.	3 marks
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Q.7	Explain the importance of farm records and accounts in managing a farm. State advantages of and difficulties in farm records and accounts keeping.															
Ans:	<b>Importance:</b> 1. To analyze and judge the improvements or otherwise of the performance of the farm business at a particular time	1 mark														

	<p>2. To find out the weaknesses of the farm business.</p> <p>3. To effect the improvement of the farm business through the removal of weaknesses in the existing farm business.</p> <p><b>Advantages: (any six points)</b></p> <ol style="list-style-type: none"> <li>1. Means of higher income</li> <li>2. Basis for diagnosis and planning</li> <li>3. Way to improve managerial ability of the farmer</li> <li>4. Basis for credit acquisition and management</li> <li>5. Guide for better home management</li> <li>6. Basis for conducting research in agriculture and production economics</li> <li>7. Basis for government policies</li> </ol> <p><b>Difficulties in book keeping: (any six points)</b></p> <ol style="list-style-type: none"> <li>1. Subsistence nature of farming</li> <li>2. Farming is a laborious work</li> <li>3. Triple role of Indian farmer</li> <li>4. Illiteracy and lack of business awareness</li> <li>5. Complicated nature of agriculture business</li> <li>6. Inadequate extension service</li> <li>7. Non-availability of suitable farm record books</li> <li>8. Fear of taxation</li> </ol>	<p>1.5 marks</p> <p>1.5 marks</p>																								
Q.8	<p>What is Natural Resource Economics? Explain the difference between Agricultural Economics and Natural Resource Economics.</p> <p><b>Ans: Natural Resource Economics (NRE):</b></p> <p>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 future generations. NRE includes Welfare theory, Pollution control, Resource exhaustibility, Environmental management, Resource extraction, Non-market valuation and Environmental policy.</p> <p><b>Agricultural Economics Vs Natural Resource Economics: (any three points)</b></p>	<p>1 mark</p> <p>3 marks</p>																								
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Q.9	What is farm plan? State its importance and characteristics of a good farm plan.	1 mark
Ans:	<p><b>Farm plan:</b> A farm plan is a programme of total farm activity of a farmer to be taken up on the farm are drawn in advance. A farm plan should show the enterprises to be taken up on the farm; the practices to be followed in their production, use of labour, investments to be made and similar other details. It is the scheme of activities to be taken up on the farm in future drawn in advance called farm planning.</p> <p><b>Importance:</b></p> <ol style="list-style-type: none"> <li>1. To achieve his objectives (Profit maximization or cost minimization) in a more organized manner.</li> <li>2. It also helps in the analysis of existing resources and their allocation for achieving higher resource use efficiency, farm income and farm family welfare.</li> <li>3. Farm planning is an approach which introduces desirable changes in farm organization and operation and makes a farm viable unit.</li> </ol> <p><b>Characteristics of a good farm plan:</b></p> <ol style="list-style-type: none"> <li>1. It should be written.</li> <li>2. It should be flexible.</li> <li>3. It should provide for efficient use of resources.</li> <li>4. Avoid excessive risks.</li> <li>5. Utilize farmer's knowledge and experience and take account of his likes and dislikes.</li> <li>6. Provide for efficient marketing.</li> <li>7. Provision for borrowing, using and repayment of credit.</li> <li>8. Provide for the use of latest technology.</li> <li>9. It should have balanced combination of enterprises. Such combination in turn ensures,               <ol style="list-style-type: none"> <li>a. Production of food, cash and fodder crops.</li> <li>b. Maintain soil fertility.</li> <li>c. Increase in income.</li> <li>d. Improve distribution &amp; use of labour, power &amp; water requirement throughout the year.</li> </ol> </li> </ol>	<p>1.5 marks</p> <p>1.5 marks</p>
Q.10	Write short notes	2 marks
Ans:	<p><b>a. Properties of iso-quant (any four properties)</b></p> <ol style="list-style-type: none"> <li>i. Isoquant is negatively sloping/Isoquant slope downward from left to right.</li> <li>ii. Two isoquants do not intersect with each other/ Isoquants are Non-intersecting.</li> <li>iii. Iso-quant moving away from origin indicates higher level of output</li> <li>iv. It is a convex to origin</li> <li>v. The slope of iso-quant denotes the rate of substitution (MRTS) between the two resources.</li> </ol> <p><b>b. Farm inventory:</b></p> <p>A farm inventory is a list of assets - anything of value - that can be sold. The inventory list can include the price of the item, the value of the stock, the year it was bought, the expected lifetime, and the depreciation in value. The purpose of inventory is to monitor the stocks movements as basis for daily stocks position and levels for procurement purposes. Also it helps management on decision-making when it comes to what is fast moving, slow moving, and non-moving stocks.</p>	<p>2 marks</p> <p>2 marks</p>
<b>SECTION 'B'</b>		
Q.11	Define the following terms.	4 marks
Ans:	<ol style="list-style-type: none"> <li>1) Returns to scale: measures the change in output resulting from a proportionate change in all inputs simultaneously.</li> <li>2) Linear programming: is a mathematical method of analysis, which finds the "best" or optimal combination of business activities to meet a certain objective.</li> <li>3) Negative externality: are defined as economic activities that have negative</li> </ol>	

	effects on unrelated third parties. 4) Production function: Production function is a technical and mathematical relationship describing the manner and extent to which a particular product depends upon the quantities of inputs or services of inputs used in the production process	
Q.12 Ans:	State true or false. 1) Uncertainty is insurable: <b>False</b> 2) Farm Management is generally considered to be macroeconomic in its scope: <b>False</b> 3) The relationship between cost function and production function is inverse: <b>True</b> 4) Cost of next best alternative foregone is called real cost: <b>False</b>	4 marks
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<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><i>Signature:</i> </p> <p>Name of Course Instructor: <b>S. H. Kamble</b></p> <p>Designation: Associate Professor of Agril. Economics, CoA, Latur</p> <p>Mobile No.: 9764877722</p> <p>E-mail ID: kamblesh77@gmail.com</p> </div> <div style="width: 45%;"> <p><i>Signature:</i> </p> <p>Name of Head/ Incharge: <b>S. H. Kamble</b></p> <p>Designation: Associate Professor of Agril. Economics, CoA, Latur</p> <p>Mobile No.: 9764877722</p> <p>E-mail ID: kamblesh77@gmail.com</p> </div> </div>		