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2312E1100

Candidate's Seat No :_____

Exec MBA (IIS) Sem-1 (Rep) Examination

IISe-EMS7

Agriculture, Climate Change & Business

December-2024

Time : 2-30 Hours] **[Max. Marks : 70**

Instructions:

- ***Question no 1 to 4 carry 14 marks each, with both the questions mentioned in question 1 to 4 of 7 marks each.***
- ***Question no 5 carries 14 marks (each question of 2 marks). Out of the 12 questions, attempt any seven.***

Question 1

Discuss the impacts of climate change on business and vice-versa.

OR

Discuss the concerns/problems that question the food security of the nation and provide solutions for the same.

Question 2

Give four examples (national as well as international) that show how extreme weather events have affected agriculture. Considering the

OR

What do you understand by "Climate Resilient Agriculture"? Give examples of such practices from different climatic conditions.

Question 3

Government of India has launched National Mission on Natural Farming to promote chemical-less farming. Similar concept is being revolutionized in different countries with the name of sustainable farming/ecological farming. How relevant are these agricultural practices to feed the nation with the largest population in the world?

OR

Mention some of the schemes of Government of India, which have been blessings for Indian agriculture. What is the role of new agriculture practices like "Hydroponics", "Vertical farming" in securing the food sufficiency of the nation.

Question 4

Makhana, also known as fox nuts, is a popular snack in India and other parts of Asia. It is obtained from the seeds of lotus plant, which is native to India and other parts of Asia. Makhana has been used in traditional Ayurvedic medicine for centuries and is known for its high nutritional value and health benefits. In recent years, Makhana has gained popularity as a health food due to its low calorie and fat content, high fibre content, and various other nutritional benefits. More than 80% of India's Makhana crop comes from the state of Bihar. Its cultivation is hugely labor intensive as farmers need to go deep inside water to collect them followed by further manual processing. In cultivation of Makhana, major constraints faced by farmers are divided into four groups as a) Production Constraints b) Economic Constraints c) Technology Constraints d) Policy Related Constraints.

P.T.O.

(a) Production Constraints: Most of farmers have lack of scientific management knowledge so, face troublesome while cultivating makhana crops. Beside this variability in climatic condition, distance of pond from home difficulties in controlling weeds.
(b) Economic Constraints: Makhana production requires high initial cost as perceived by growers so main constraint faced by growers are high input cost including labour and fertilizer while others are low availability of capital, low selling price, rate fluctuation and also money lenders charge high rate of interest.
(c) Technology Constraints: Makhana production requires adequate skill and experience which it is full of difficulties and including high level of drudgery. In absence of suitable post harvested growers felt more difficulties. Beside this lack of suitable variety, lack of disease management practices and training needs these lists of technological constraints.
(d) Policy related constraints: Absence of government policy for makhana growers, Unproductive ponds, lack of extension support system, irregularity in pond allotment faced constraint in makhana growers.

Based on your understanding of the above-mentioned information, as an agriculture officer, what steps would you take for the welfare of farmers involved in Makhana farming?

OR

Despite 77 years of independence, industrial growth in Bihar state is almost nill, and the responsibility for the same is owned by both government and people. In such scenario, what future road map you will prepare to make it real success.

Question 5

Attempt any seven out of twelve questions mentioned below:

1. With reference to micro-irrigation, which of the following statements is/are correct?
   i. It helps in water conservation
   ii. It helps in soil conservation
   iii. It enhances productivity
   iv. All the above

2. Which gas is emitted in huge amount from agriculture sector?
   i. Carbon di oxide
   ii. Nitrogen di oxide
   iii. Ozone
   iv. Methane

3. What is food security?
   i. It relates to efforts to prevent terrorists from poisoning food supplies.
   ii. It is about ensuring everyone's access to food
   i. Its component elements include availability, utilization, and stability, as well as access.
   iv. Food security focuses primarily on ending micronutrient malnutrition.

4. How is food production reduced due to climate change?
   i. Due to application of organic manures
   ii. Due to modern technologies
   i. Due to increase in pests
   ii. Due to reduced pollution

5. What is greenhouse effect?
   i. Certain gases in the atmosphere trap heat and warm the Earth.
   ii. Life on Earth exhales gas that warms the atmosphere.
   i. The tilt of the Earth changes the amount of solar energy available on Earth
   ii. The sun is putting out more radiant energy over time.

E1100-3

6. What is the primary cause of the overall rising trend in CO_2 in the atmosphere?
   i. The increase in CO_2 is caused by burning of fossil fuels
   ii. CO_2 is increasing because we are coming out of the ice age.
   i. As human population grows, people exhale more CO_2
   ii. CO_2 is released by the oceans as they warm.

7. What are the major causes of sea level rise?
   i. Melting sea ice
   ii. Melting glaciers and ice sheets
   i. Rivers accelerating
   ii. Rocks and soil washing into the sea.

8. What is triple wins in agriculture?
9. Mention two of the missions under National Action Plan on Climate Change in India.
10. Give two examples of biotic factors in agriculture.
11. What is conventional agriculture?
12. What CGIAR and CCAFS stand for?
