

NABARD Ph 2 2023

Memory Based

Objective + Descriptive with answers





Question No. 1 The Ministry of Rural Development has issued a directive to provide _____days of wage employment under MGNREGA for Scheduled Tribe households living in forest areas.

1. 120

2. 130

3. 150

4. 200

5. 250

Answer: 150

Explanation: Ministry of Rural Development has issued a directive to provide 150 days of wage employment under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) for Scheduled Tribe households living in forest areas.

Question No. 2 Drought is declared by the ___taking into account rainfall situation, crop growth, etc.

- 1. State government
- 2. Ministry of home affairs
- 3. Ministry of earth sciences
- 4. Ministry of agriculture
- 5. None of these

Answer: State government

Explanation: Drought is declared by the State government taking into account rainfall situation, crop growth, etc.

Question No. 3 What is the rate of unemployment allowance provided under MGNREGA if fails to provide employment within 15 days and thereafter?

1. 1/3 & 1/2

2. ½ &⅓

3. 1/3 & 1/3

4. 1/4 & 1/4

Answer: 1/2 &1/3

Explanation: If work is not provided within 15 days, applicants are entitled to an unemployment allowance: one third of the wage rate for the first 30 days, and one half thereafter.

Question No. 4 Which is the name of subscheme launched with the outlay of 6000cr

- 1. PMMSY
- 2. MIDH
- 3. PMKSSY
- 4. NFSM
- 5. None of these

Answer: PMKSSY

Explanation: A new sub-scheme named Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM- MKSSY): Central Sector Sub-scheme under PMMSY with targeted investment of INR 6,000



crore with the objective to enhance further the earnings and incomes of fishermen, fish vendors and micro & small enterprises engaged in fisheries sector.

Question No. 5 In the paragraph above, PACs is mentioned. PACs stand for _____

- 1. Projected Agricultural Community Services
- 2. Primary Agriculture Credit Societies
- 3. Primary Agriculture Community Societies
- 4. Primary Agriculture Credit Services
- 5. None of these

Answer: Primary Agriculture Community Societies

Explanation: Primary Agricultural Credit Societies are the grass root level arms of the short-term co-operative credit structure. PACS deals directly with the rural (agricultural) borrowers, give those loans and collect repayments of loans given and also undertake distribution and marketing functions.

Question No. 6 The Centre has announced a 47-member committee under___to prepare the national cooperation policy with the objective to promote cooperative-based economic development model.

- 1. Suresh Prabhu
- 2. Giriraj Singh
- 3. Nirmala Sitharaman
- 4. Jyotiraditya Scindia
- 5. Mansukh L. Mandaviya

Answer: Suresh Prabhu

Explanation: Explanation: The Centre has announced a 47-member committee under Suresh Prabhu to prepare the national cooperation policy with the objective to promote cooperative-based economic development model.

Question No. 7 In order to make PACS self-reliant in tune with 'Atmanirbhar Bharat Abhiyaan', the Government of India (Gol) has, on 29th June 2022 approved the Centrally Sponsored Project for computerization of PACs for a period of five years from 2022-23 to .

- 1. 2026-27
- 2. 2025-26
- 3. 2027-28
- 4. 2029-30
- 5. None of these

Answer: 2026-27

Explanation: In order to make PACS self-reliant in tune with 'Atmanirbhar Bharat Abhiyaan', the Government of India (GoI) has, on 29th June 2022 approved the Centrally Sponsored Project for Computerisation of Primary Agricultural Credit Societies for a period of five years from 2022-23 to 2026-27.



Question No	. 8 Which	of the i	mplementing	agency f	or the	Centrally :	Sponsored	Project for
Computeriza	ation of PA	Cs?						

- 1. KVK
- 2. IIT- Delhi
- 3. NABARD
- 4. RBI
- 5. None of these

Answer: NABARD

Explanation: NABARD is the implementing agency for the Centrally Sponsored Project for Computerization of PACs.

Question No. 9 KVK was recommended by which committee

- 1. Mohan Singh Mehta
- 2. Balwant Rai Mehta
- 3. Ashok Mehta
- 4. D.K. Das
- 5. All of them

Answer: Mohan Singh Mehta Explanation

KVK was recommended by Mohan Singh Mehta committee.

Question No. 10 Relay Cropping is _____

- 1. A system in which a second crop is planted into an existing crop before its harvesting.
- 2. The cultivation of two or more crops at the same time on the same field
- 3. Growing of single crop in same land year after year
- 4. Growing two or more crops in sequence on the same field in a farming year.
- 5. None of the above

Answer: A system in which a second crop is planted into an existing crop before its harvesting.

Question No. 11 _____ is a method of multiple cropping where one crop is seeded into standing second crop well before harvesting of second crop.

- 1. Mixed crop
- 2. Companion crop
- 3. Augmenting crop
- 4. Guard crop
- 5. Relay crop

Answer: Relay crop

Explanation: Relay cropping is the practice of planting a cover crop in the same field after the first crop is harvested, followed by the growth of a second crop.

Question No. 12 Bhagnari is a breed of _____

- 1. Cattle
- 2. Pig
- 3. Horse
- 4. Poultry
- 5. Camel

Answer : Cattle



Explanation: Bhagnari is a Draft breed of Cattle. They are found in bhag territory of Baluchistan. In mature males, color varies from white to gray, intensifying to nearly black on the neck, shoulder, and hump. At adulthood, a male's average weight is 600 kg, while a female's is 480 kg.

Question No. 13 Which fertilizer has 2 primary essential nutrients?

- 1. DAP
- 2. SSP
- 3. MOP
- 4. SOP
- 5. Urea

Answer: DAP

Explanation: Two primary essential nutrients DAP- Nitrogen and Phosphorous

Question No. 14 Which centre has been declared as Global centre for Excellence on Millets/Shree Anna?

- 1- ICAR IIMR
- 2- ICAR-IIWBR
- 3- ICAR- NRRI
- 4- ICAR- IPRI
- 5- None of the these

Answer- ICAR IIMR

Question No. 15 Indian institute of millet research, to be supported as the centre of excellence for 'shree anna' located in

- 1. New Delhi
- 2. Hyderabad
- 3. Jaipur
- 4. Mumbai
- 5. Lucknow

Answer: Hyderabad Indian institute of millet research: Hyderabad

Question No. 16 In relation to the PM Vishwakarma Scheme, which of the statements below are accurate?

- 1. Registration and benefits under the Scheme are limited to a single family member.
- 2. Artisans receive financial aid through the scheme to initiate their own enterprises.
- 3. Financial assistance to artisans is offered in the form of grants under the scheme.
- 4. The Ministry of Micro, Small and Medium Enterprises (MSME) is responsible for implementing the scheme.

Identify the correct statement using the following options.

- 1. 1, 2 and 3
- 2. 2, 3 and 4
- 3. Only 2 and 3
- 4. 1, 2 and 4



5. All of the above **Answer: 1, 2 and 4**

Explanation: Statement 3 is incorrect. The PM Vishwakarma Scheme provides financial assistance to artisans in the form of loans, not grants. The loans are collateral-free and have a concessional interest rate of 5%.

Question No. 17 Consider the following statement regarding a scheme aims to provide Record of Rights to village household owners.

- 1. The Scheme aims to provide legal ownership rights in all the notified village areas of the country.
- 2. The scheme is being implemented in the State of Karnataka in a phase-wise manner.
- 3. This Scheme launched on 24 April 2021, on the National Panchayati Rai Day.
- 4. Ministry of Panchayati Raj is implementing it with various other stakeholders.

Identify the incorrect statement using the following options.

- 1. 1, 2 and 3
- 2. 2, 3 and 4
- 3. Only 1
- 4. 1, 2 and 4
- 5. All of the above

Answer: Only 1

Explanation: The Central Sector Scheme "SVAMITVA" a Central Sector Scheme of Ministry of Panchayati Raj was nation-wide launched by the Hon'ble Prime Minister on National Panchayati Raj Day, 24th April 2021 after successful completion of pilot phase of scheme (2020-2021) in 9 states, aims to provide the 'Record of Rights' to village household owners possessing houses in inhabited areas (Abadi) in villages with issuance of legal ownership rights (Property cards/Title deeds). Under the scheme, the land parcels in rural inhabited area of all the villages of the country are surveyed. It is being implemented with the collaborative efforts of the Ministry of Panchayati Raj, Survey of India (SoI), State Revenue Department, State Panchayati Raj Department and National Informatics Centre. States need to sign Memorandum of Understanding (MoU) with Sol for implementation of the scheme. So far 29 States/UTs have signed MoU with Sol. The scheme is being implemented in the State of Karnataka in a phase-wise manner. Drone flying has been completed in 2270 villages of 18 districts in the State and property cards have been distributed in 836 villages so far.

Question No. 18 Consider the following statement regarding Dr. Ambedkar Scheme of Interest Subsidy on Educational Loan, and identify the correct statement.

- 1. The scheme is eligible beneficiaries from Other Backward Classes (OBCs) and Economically Backward Classes (EBCs).
- 2. The Scheme will be implemented by the Nodal Bank as per the MoU between the Banks and the Ministry of Social Justice & Empowerment.
- The Scheme only for loans taken for studied from abroad.
- 4. For a student, the eligible loan component shall be the actual loan taken subject to a



maximum of ? 20,00,000 for the purpose of an Interest subsidy claim.

- 1. 1, 2 and 3
- 2. 2, 3 and 4
- 3. Only 1
- 4. 1, 2 and 4
- 5. All of the above

Answer: All of the above

Explanation: Dr Ambedkar Central Sector Scheme of Interest Subsidy on Educational Loans for Overseas Studies for Other Backward Classes (OBCs) and Economically Backward Classes (EBCs)" is an Education Loan Scheme by the Department of Social Justice and Empowerment, Ministry of Social Justice and Empowerment.

Question No. 19 The Central Sector Scheme____aims to provide the 'Record of Rights' to village household owners possessing houses in inhabited areas (Abadi) in villages with issuance of legal ownership rights (Property cards/Title deeds).

- 1. SVAMITVA Scheme
- 2. SMATHA Scheme
- 3. SHRESTA Scheme
- 4. SWATI Scheme
- 5. SWAWALAMBAM Scheme

Answer: SVAMITVA Scheme Direction:

Answer the questions based on this paragraph-

Sickle cell disease is a genetic blood disease which affects the whole life of a patient. It is more common in the tribal population of India, but occurs in non-tribals too. It not only causes anemia but also pain crises, reduced growth, and affects many organs like lungs, heart, kidney, eyes, bones and the brain. To eliminate sickle cell disease, Sickle Cell Anaemia Elimination Mission has been launched by Prime Minister from Madhya Pradesh on 1st July, 2023. The objective of the Mission is provision of affordable and accessible care to all Sickle Cell Diseased patients, quality of care for SCD patients and reduction in the prevalence of Sickle Cell Disease through awareness creation, universal screening of 7 crore people in the age group of 0-40 years in affected 278 districts of tribal areas, and counseling through collaborative efforts of central ministries and state government.

Through the Ministry of Tribal Affairs, awareness and counseling material has been developed. IEC and media activities are adopted for propagation of disease, screening and management. State Govt. have to play an important role in implementation of mission activities. State Government doing screening by scheduling outreach campaigns in villages and schools/hostels. The preventive measurement and management of disease is also an important component of the mission. Under the National Sickle Cell Anaemia Elimination Mission, patients living with Sickle Cell disease provided with the following services/ facilities for improving their quality of life through Ayushman Bharat-Health and Wellness Centres (AB-HWC):

Question No. 20 Identify the programme the paragraph is talking about and fille the gap (a) with the correct option from below.



- 1. Janani Suraksha Yojana
- 2. PM National Dialysis Programme
- 3. National Rabies Control Programme
- 4. National Sickle Cell Anaemia Elimination Program
- None of these

Answer: National Sickle Cell Anaemia Elimination Program Explanation

Explanation: The National Sickle Cell Anaemia Elimination Program, introduced in the Union Budget 2023, focuses on addressing the significant health challenges posed by sickle cell disease, particularly among tribal populations of the country. Sickle cell disease (SCD) is a chronic single gene disorder causing a debilitating systemic syndrome characterized by chronic anemia, acute painful episodes, organ infarction and chronic organ damage and by a significant reduction in life expectancy.

Question No. 21 For the reduction in the prevalence of sickle cell anaemia, several national and state- specific initiatives have been planned and undertaken. Which of the following is/are true about those initiatives?

- 1. prenatal diagnosis,
- 2. counselling
- 3. setting up of early intervention centers to prevent and treat the complications
- 1. Only I
- 2. | & ||
- 3. || & |||
- 4. I. II. & III
- 5. Only III

Answer: I, II, & III

Explanation: For the reduction in the prevalence of sickle cell anaemia, several national and state-specific initiatives have been planned and undertaken. Identifying SCD as a genetic blood disorder affecting tribal populations in Central, Western, and Southern India, NHM prepared and disseminated comprehensive guidelines to control and prevent Hemoglobinopathies, including SCD. This includes prenatal diagnosis, counselling, and setting up of early intervention centers to prevent and treat the complications arising from the disease. Through the guidelines, the detection and genetic counselling of parents with Sickle Cell trait can help in guiding parents to understand the risk of sickle cell disease in the offspring.

Question No. 22 Consider the following Statements and choose the option with Correct Statements about the Programme.

- The objective of the Mission is provision of affordable and accessible care to all Sickle Cell Diseased patients, quality of care for SCD patients and reduction in the prevalence of Sickle Cell Disease through awareness creation, universal screening of 7 crore people in the age group of 0-18 years.
- 2. Implemented in 17 high-focus states across the country, this program aims to improve the care and prospects of all sickle cell disease patients while reducing the prevalence of the disease. Kerala is one of those 17 States.
- 3. Over a period of four years, spanning from the fiscal year 2023-24 to 2026-27, the program



targets screening approximately 7.0 crore people. This ambitious goal highlights the program's dedication to reaching a large portion of the population, promoting early diagnosis and intervention.

- 1. Only I
- 2. | & ||
- 3. || & |||
- 4. I, II, & III
- 5. Only II

Answer : Only II

Question No. 23 The program is executed in a mission mode as part of the National Health Mission (NHM), aims to eliminate sickle cell genetic transmission by the year_____, showing a long-term commitment to eradicating the disease

- 1. 2025
- 2.2030
- 3. 2047
- 4. 2050
- 5. 2055

Answer: 2047

Direction: Read the Para

Sodic, saline-alkali, and saline soils are distinct types, each with unique characteristics impacting agricultural productivity. Sodic soil, characterized by high levels of sodium but low salinity, often has a pH above 8.5 and an electrical conductivity (EC) below 4 dS/m. Saline-alkali soil, a combination of high sodium and salinity, displays both sodic and saline traits they have pH and (a) EC. Saline soils have high salinity but low sodium content, with a pH ranging from neutral to slightly alkaline and an EC above 4 dS/m.

(b) occurs when soils experience a build-up of sodium ions due to poor drainage and excessive irrigation, displacing other essential nutrients. Over time, this process leads to reduced soil permeability and negatively impacts plant growth due to soil structure deterioration and decreased water infiltration.

Question No. 24

a) Fill in the blank (a)

- 1. pH> 8.5 & EC < 4 dS/m
- 2. pH < 8.5 & EC > 4 dS/m
- 3. pH< 8.5 & EC < 4 dS/m
- 4. pH< 8.5 & EC < 5 dS/m
- 5. None of these

Answer: pH> 8.5 & EC < 4 dS/m



Explanation : Answer: Sodic soils (Alkali) (Exhibit intermediate EC ?4 mmhos/cm; pH ?8.5; ESP >15%. Direction :

Sodic, saline-alkali, and saline soils are distinct types, each with unique characteristics impacting agricultural productivity. Sodic soil, characterized by high levels of sodium but low salinity, often has a pH above 8.5 and an electrical conductivity (EC) below 4 dS/m. Saline-alkali soil, a combination of high sodium and salinity, displays both sodic and saline traits they have pH and

- (a) EC. Saline soils have high salinity but low sodium content, with a pH ranging from neutral to slightly alkaline and an EC above 4 dS/m.
- (b) occurs when soils experience a build-up of sodium ions due to poor drainage and excessive irrigation, displacing other essential nutrients. Over time, this process leads to reduced soil permeability and negatively impacts plant growth due to soil structure deterioration and decreased water infiltration.

Question No. 25 Fill in the blank (b)

- 1. Solonization
- 2. Podzolization
- 3. Laterization
- 4. Salinization
- 5. None of these

Answer: Solonization

Answer: Solonization is the process by which soils with high exchangeable sodium and pH greater than 8.5 are formed; often sodium carbonate and sodium bicarbonate are formed in extreme cases of alkalization. Such soils are called sodic soils or alkali soils.

Direction: Read the paragraph

Tillage is a critical process in agriculture, involving primary and secondary phases to prepare soil for planting. __a___ is type of tillage in which soil is opened up, dug deep, to enhance aeration and drainage while controlling weeds. Implements like country ploughs, chisel ploughs, and subsoilers are commonly used here. Secondary tillage follows, refining the seedbed by breaking clods, incorporating fertilizers, and smoothing the surface. Implements like ____b__are employed for this purpose. In paddy fields, specialized tools like puddlers are used to break soil clods and create a fine, leveled surface for rice cultivation. The cage wheel, with its rounded structure, assists in __c in the paddy fields, crucial for successful rice cultivation.

Question No. 26 Fill in the blank (a)

- a) Zero tillage
- b) tertiary tillage
- c) Secondary tillage
- d) Primary tillage
- e) Conservation tillage

Answer: Primary tillage

Explanation: Primary tillage: Includes inversion of soil, uprooting of weeds and stubbles and less cloddy soil surface. Optimum condition- 25-50% depletion of available moisture.



Question No. 27 Fill in the blank (b)

Plough, cultivator

- a) Harrow, Planker
- b) Chisel plough
- c) Combine
- d) Happy seeder

Answer: Harrow, Planker

Explanation: In secondary tillage soils are made finer or lighter by operations such as Harrowing and Planking. Tools used are Harrows and Plankers.

Question No. 28 Fill in the blank (C)

- a) Used to churn the soil
- b) Used for winnowing
- c) Used for harvesting
- d) Used for threshing
- e) None of these

Answer: Used to churn the soil

Explanation :The cage wheel, with its rounded structure, assists in churning of soil in the paddy fields, crucial for successful rice cultivation

Question No. 29 In relation to the PM Vishwakarma Scheme, which of the statements below are accurate?

- 1. Registration and benefits under the Scheme are limited to a single family member.
- 2. Artisans receive financial aid through the scheme to initiate their own enterprises.
- 3. Financial assistance to artisans is offered in the form of grants under the scheme.
- 4. The Ministry of Micro, Small and Medium Enterprises (MSME) is responsible for implementing the scheme.

Identify the correct statement using the following options.

- A. 1,2 and 3
- B. 2,3 and 4
- C. Only 2 and 3
- D. 1,2 and 4
- E. All of the above

Ans - D

Statement 3 is incorrect. The PM Vishwakarma Scheme provides financial assistance to artisans in the form of loans, not grants. The loans are collateral-free and have a concessional interest rate of 5%.

Q 1- The source of institutional credit has increased in India. Still, many farmers are dependent on Money Lenders. Discuss the reasons. (15 Marks, 600 Words)



The availability of institutional credit in India has witnessed significant improvements over the years, reflecting a commitment to financial inclusion and rural development. Institutional credit refers to loans and financial services provided by formal financial institutions such as banks, cooperatives, and government agencies. Institutional sources of credit for farmers in India include co-operative credit societies, government loans, commercial banks, regional rural banks, land development banks, and non-banking financial companies (NBFCs) empowered by technology.

Co-operative credit societies are the cheapest and best source of rural credit in India, covering nearly 86% of Indian villages and accounting for nearly 36% of the total rural population of the country. The government of India also provides agricultural credit, known as taccavi loans, which are lent by the government. Commercial banks, regional rural banks, and land development banks also provide agricultural credit. Non-banking financial companies (NBFCs) empowered by technology have ensured that farmers now have access to institutional credit. The source of institutional credit has increased in India, yet many farmers still depend on moneylenders for credit due to several reasons:Limited Access to Institutional Credit: Despite the increase in institutional credit, many farmers, especially small and marginal ones, still face challenges in accessing formal credit from banks and other financial institutions. This is often due to the lack of proper documentation, inadequate collateral, and the distant location of banking facilities, making it difficult for farmers to avail themselves of institutional credit.

High Transaction Costs and Delays: The process of obtaining credit from formal financial institutions can be cumbersome and time-consuming, involving high transaction costs and bureaucratic hurdles. In contrast, moneylenders may provide credit more quickly and with fewer administrative requirements, making them a more convenient option for some farmers. Informal Nature of Transactions: Moneylenders often have pre-existing relationships with the farmers and operate on a more personal and informal basis, which can make the credit disbursal process more flexible and less intimidating for the borrowers. In contrast, dealing with formal financial institutions may be perceived as impersonal and rigid.

Seasonal and Unpredictable Nature of Agriculture: The income of farmers is often seasonal and dependent on various factors such as weather, pests, and market conditions. This can make it challenging for them to meet the regular repayment schedules required by formal financial institutions. Moneylenders, in comparison, may offer more flexible repayment terms tailored to the agricultural cycle. Lack of Financial Literacy: Many farmers, especially in rural areas, have limited financial literacy and awareness of the formal credit options available to them. This lack of understanding about the benefits of institutional credit and the potential risks associated with borrowing from moneylenders contributes to their continued reliance on informal sources of credit. While the availability of institutional credit has increased in India, the persistent dependence of many farmers on moneylenders can be attributed to a combination of limited access to formal credit, high transaction costs, the informal nature of moneylending transactions, the unique financial needs of agricultural activities, and a lack of financial awareness among farmers. Addressing these challenges will be crucial in further reducing the reliance on moneylenders and promoting the sustainable financial inclusion of farmers in the formal credit system.

Q 2 - What are the objective of extension education? (3) What are the methods followed by the extension worker in teaching? (6) What role does Extension play in Indian Agriculture? (6)



Extension Education is a defined as an educational process to provide knowledge, education, and support services to the rural people, farmers about the improved practices in a convincing manner & to help them to take decisions within their specific local condition.

Objectives of Extension Education:

- **Enhancing Rural Living:** Elevating the rural population's quality of life by guiding them to use natural resources more effectively.
- **Improving Living Conditions:** Providing essential health, recreational, and educational amenities to enhance village life.
- **Boosting Farm Income:** Increasing farmers' earnings through enhanced production and improved marketing strategies.
- Uplifting Rural Standards: Raising the overall standard of living in rural areas.
- Rural Area Development: Contributing to the development and progress of rural regions.
- Enriching Social and Cultural Activities: Expanding social, cultural, and recreational programs for rural communities.
- Fostering Rural Leadership: Developing leadership qualities among rural individuals.
- **Encouraging Self-Sufficiency:** Cultivating a sense of self-reliance among rural populations.
- Providing Essential Services: Offering education and healthcare facilities in rural settings.
- Training Rural Youth: Equipping rural youth with skills for developmental initiatives.
- **Supporting Agricultural Marketing:** Assisting farmers in product processing and effective marketing.

The extension education is disseminated to the people through different methods. These methods are as follows:

- 1. **Farm & Home Visit:** Face-to-face interaction with farmers for direct communication and problem-solving. During these visits, information is exchanged or discussed.
- 2. **Method Demonstration:** Shows techniques or practices, often used for groups. e.g. clean milk production, paneer making, ghee making, etc. This method is usually used for groups of people.
- 3. **Result Demonstration:** Proves benefits of practices and their local applicability, encouraging learning through seeing and doing. It is conducted by a farmer under the direct supervision of an extension professional. It is designed to teach others, in addition to the person who conducts the demonstration.
- 4. **Group Discussion:** Engages communities to solve local issues democratically. It is used to encourage & stimulate the people to learn more about the problems that concern the community through discussion.
- 5. **Exhibition:** Displays information systematically to attract attention, often targeting illiterate or semi-literate individuals.
- 6. **Campaign:** Focuses on specific issues to emotionally involve the community. Through this method, maximum number of farmers can be reached in the shortest possible time.
- 7. **Field Tour:** Provides hands-on experiences for farmers, showcasing new practices and products in various settings.
- 8. **Print Media:** Uses newspapers, leaflets, pamphlets, and bulletins to reach literate audiences with specific information.



- Leaflet, Folder, Pamphlet, Bulletin: Various written materials presenting concise or comprehensive information.
- **Booklet:** A more extensive publication exceeding 20 pages but less than 50 pages, offering in-depth information.
- 9. **Radio:** Broadcasts talks, discussions, and dramas to inform farmers about new techniques, diseases, market news, etc.
- 10.**Television:** Utilizes audio-visual impact to disseminate agricultural information effectively.

Extension services in Indian agriculture serve multifaceted roles pivotal to its growth and sustainability.

- Facilitates knowledge transfer: Acts as a bridge between scientific innovations and farmers, disseminating modern agricultural technologies and best practices.
- **Enhances productivity:** Provides insights into agronomic practices, seed selection, pest control, and irrigation techniques, leading to increased agricultural productivity.
- **Skill development:** Offers training programs to empower farmers with skills in utilizing modern inputs and machinery efficiently.
- **Inclusive development:** Aims to reduce the technology gap, ensuring small and marginal farmers benefit from modern agricultural advancements.
- **Community involvement:** Engages local communities, fostering diverse income sources and promoting local leadership development.
- **Economic empowerment:** Improves farmers' income and productivity, contributing to elevated living standards in rural areas.
- Policy implementation: Assists in implementing governmental policies at grassroots levels, supporting agricultural growth and resilience.

Extension services empower farmers, enhance practices, and align with policies, ensuring sustainable progress in India's diverse agricultural landscape.

Q 3- What is Agroforestry? What are its different types, benefits and constraints? (15 Marks, 600 Words)

Agro forestry is a land use system that involves growing trees, crops and animals on the same unit of land in a way scientifically sound way. It is a dynamic, ecologically based, natural resource management system.

The types of agroforestry are:

- Agrisilvicultural systems are a combination of crops and trees, such as alley cropping or homegardens.
- Silvopastoral systems combine forestry and grazing of domesticated animals on pastures, rangelands or on-farm.
- Agrosilvopastoral systems The three elements, namely trees, animals and crops, can
 be integrated in this system. It is illustrated by homegardens involving animals as well as
 scattered trees on croplands used for grazing after harvests.

Benefits of Agroforestry System:



1. Environmental benefits:

- Reduction of pressure on natural forests.
- More efficient recycling of nutrients by deep-rooted trees on the site.
- Better protection of ecological systems.
- Reduction of surface run-off, nutrient leaching, and soil erosion through the impeding effect of tree roots and stems on these processes.
- Improvement of microclimates, such as lowering of soil surface temperature and reduction of the evaporation of soil moisture through a combination of mulching and shading.
- Increment in soil nutrients through addition and decomposition of litterfall.
- Improvement of soil structure through the constant addition of organic matter from decomposed litter.
- It is also recognized that Agroforestry is perhaps the only alternative to meeting the target of increasing forest or tree cover to 33 percent from the present level of less than 25 percent, as envisaged in the National Forest Policy (1988).
- Agroforestry is known to have the potential to mitigate the climate change effects through
 microclimate moderation and natural resources conservation in the short run and through
 carbon sequestration in the long run. Agroforestry species are known to sequester as
 much carbon in below-ground biomass as the primary forests, and far greater than the
 crop and grass systems.

2. Economic benefits:

- Increment in outputs of food, fuelwood, fodder, fertilizer, and timber.
- Reduction in the incidence of total crop failure, which is common to single cropping or monoculture systems.
- Increase in levels of farm income due to improved and sustained productivity.
- Agroforestry has significant potential to provide employment to the rural and urban populations through production, industrial application, and value addition ventures. Current estimates show that about 65 % of the country's timber requirement is met from the trees grown on farms. Agroforestry also generates significant employment opportunities.

3. Social benefits:

- Improvement in rural living standards from sustained employment and higher income.
- Improvement in nutrition and health due to increased quality and diversity of food outputs.
- Stabilization and improvement of communities through the elimination of the need to shift sites of farm activities.

Constraints of Agroforestry:

Environmental Aspects:

 Potential Competition: Trees and food crops competing for space, sunlight, moisture, and nutrients, potentially reducing food crop yields.



- Harvest-Related Damage: Risks of food crop damage during tree harvesting operations.
- Pest Attraction: Trees acting as hosts to insect pests harmful to food crops.
- Aggressive Regeneration: Prolific tree regeneration potentially displacing food crops and overtaking entire fields.

Socioeconomic Aspects:

- Increased Labor Demand: Higher labor inputs required, leading to occasional scarcity in other farm activities.
- Yield Competition: Competition between food and tree crops resulting in potentially lower aggregate yields compared to single-crop cultivation.
- Extended Maturation Period: Longer time for trees to mature and become economically valuable.
- Farmer Resistance: Farmers being hesitant to replace food crops with trees, particularly in land-scarce areas.
- Complexity and Understanding: Agroforestry's higher complexity, lesser understanding, and difficulty in application compared to single-crop farming methods.

Conclusion

Agroforestry, with its multifaceted benefits and diverse systems, stands as a beacon of sustainable land management, promising ecological preservation, economic prosperity, and social well-being for farming communities globally.

Q 4- Mention the key problems facing in marketing of agricultural products. (10 Marks, 400 words)

The marketing of agricultural products in our country faces several critical challenges, hindering fair pricing and optimal returns for farmers. These issues range from inadequate infrastructure and transportation to systemic flaws within the marketing chain:

Key Problems in Agricultural Product Marketing:

- Inadequate Infrastructure:
 - Warehousing Deficiency: Lack of proper storage facilities forces farmers to resort to rudimentary storage methods, leading to substantial wastage of produce (approximately 1.5%) and increased supply in local markets, thereby reducing fair price realization.
 - Grading and Standardization: Absence of proper grading mechanisms results in a common sale practice where all produce qualities are sold in a single lot ("dara" sales), disincentivizing farmers producing superior quality crops.
- Transportation Challenges:
 - Limited Transport Facilities: Inadequate transportation infrastructure, primarily relying on slow-moving vehicles like bullock carts, restricts the reach of produce to distant markets, compelling farmers to sell at nearby markets even at significantly lower prices.



 Perishable Produce Constraints: Insufficient transport options for perishable goods exacerbate the challenge, compelling immediate sales at low prices to avoid spoilage.

Middlemen Influence:

- Excessive Middlemen: A surplus of intermediaries within the agricultural market diminishes the farmer's share substantially, impacting their profitability and fair returns
- Malpractices in Unregulated Markets: Unscrupulous practices by arhatiyas and brokers take advantage of farmers' lack of information and literacy, imposing multiple unfair charges and fees.

• Information Asymmetry:

 Limited Market Information: Farmers often lack access to real-time market prices, leading them to accept subpar offers from traders due to information gaps.

• Credit and Financial Constraints:

 Inadequate Credit Facilities: Financially constrained farmers, seeking immediate cash flow post-harvest, are compelled to sell produce at low prevailing rates, impacting their income.

Mitigating Measures:

The government has introduced schemes like eNAM, negotiable warehouse receipts, and decentralized procurement to address some of these challenges. However, systemic issues persist, affecting the marketing dynamics.

Conclusion

All these problems—like inadequate infrastructure, transportation constraints, middlemen dominance, information gaps, and financial limitations collectively hinders the agricultural marketing ecosystem in India. These hurdles significantly impact farmers' income, necessitating comprehensive reforms to ensure fair pricing and sustainable livelihoods in the agricultural sector.

5. The Financial Inclusion index has climbed up recently, explain the reasons for the same. How does financial inclusion play a major role in framing of Monetary policy? (10 Marks, 400 Words)

More people around the world now have access to financial services, thanks to a surge in financial inclusion. This rise can be credited to several factors working together to create a more inclusive financial environment.

Digital Revolution Leads the Charge: Smartphones and affordable internet are changing the game. These advancements allow financial services to reach remote and underserved areas. Digital banking, mobile wallets, and online payments make accessing financial products convenient and affordable for everyone.

Governments Take Action: Many governments are actively promoting financial inclusion with targeted initiatives. Examples include Pradhan Mantri Jan Dhan Yojana. These programs aim to



bring unbanked or underbanked populations into the formal financial sector by opening bank accounts, providing credit access, and encouraging savings among disadvantaged communities.

Microfinance and Fintech to the Rescue: Microfinance institutions and fintech companies are key players in expanding financial inclusion. Microfinance institutions provide small loans to people in rural and economically vulnerable areas. Fintech companies leverage technology to create innovative and accessible financial solutions, like peer-to-peer lending and crowdfunding.

Regulations Pave the Way: Governments and regulatory bodies are making changes to create a supportive environment for financial inclusion. These reforms aim to:

- Reduce barriers for new financial service providers to enter the market.
- Simplify Know Your Customer (KYC) norms.
- Promote innovation in financial services.

Banking Reaches More People: Efforts to increase banking penetration in both urban and rural areas are another positive step. This includes opening new bank branches, expanding banking correspondents, and introducing low-cost, no-frills accounts, bringing banking services closer to the people.

Financial Literacy Empowers: Financial literacy programs are crucial for empowering individuals to make informed financial decisions. Educational campaigns on banking practices, saving strategies, and responsible credit use help people understand financial concepts and feel more confident using formal financial institutions.

Financial Inclusion & Monetary Policy: A Symbiotic Relationship

Financial inclusion doesn't just benefit individuals; it strengthens monetary policy too. Here's how:

- **More Effective Transmission:** When more people have access to banking services, changes in interest rates, credit availability, and money supply can more efficiently influence spending, investment, and consumption patterns.
- Richer Data, Better Decisions: A more inclusive financial system generates a broader set of economic transaction data. This allows central banks to gain a deeper understanding of economic activity and make data-driven decisions when formulating and adjusting monetary policy.
- Taming Inflation: Financial inclusion helps manage inflation better. With more people
 using formal financial channels, monetary policy tools have a stronger impact on inflation
 expectations. Central banks can use interest rate policies more effectively to manage
 inflation when a significant portion of the population is engaged with formal financial
 institutions.
- **Resilient Economy:** An inclusive financial system helps mitigate risks associated with economic downturns. When a diverse range of individuals and businesses have access to formal credit, the overall economy becomes more resilient. This gives central banks more flexibility in managing economic shocks through monetary policy measures.
- Real Economy Feels the Impact: Financial inclusion ensures that the benefits of monetary policy measures reach the real economy more directly. When a larger percentage of the population has access to banking services, changes in interest rates,



credit availability, and liquidity conditions have a more immediate and widespread impact on economic activities.

The recent improvement in financial inclusion is a positive development for both individuals and policymakers. By fostering an inclusive financial landscape, we can achieve sustainable economic growth.

6. Explain the Demographic Dividend of India and how does it help the economy? Explain the challenges India currently is facing on this aspect. (10 Marks, 400 Words)

The term "demographic dividend" refers to the economic advantage that a country can potentially gain from having a large and youthful population, provided that the working-age population (15-64 years) is larger than the dependent population (children and elderly). India is currently experiencing a demographic dividend, and understanding its implications is crucial for comprehending the country's economic dynamics.

How Demographic Dividend Helps the Economy:

- **Large Workforce**: A significant portion of India's population is now in the prime working years. This translates to a larger workforce, potentially boosting productivity and economic growth.
- **Innovation and Skills:** A young population brings the potential for increased innovation, entrepreneurship, and productivity. A well-educated and skilled workforce can drive technological advancements, making India more competitive globally.
- **Savings and Investment:** As more people enter the workforce, national savings are likely to rise. This increased capital can be invested in infrastructure, industries, and other economic activities, propelling further growth.
- Consumer Power: A large working-age population also translates to a large consumer base.
 This fuels domestic demand for goods and services, stimulating various sectors like retail, housing, and consumer durables.
- **Skilling Up:** The demographic dividend opens a window for skill development and capacity building. A well-trained workforce can meet the demands of the global economy, attracting foreign investment and fostering a more competitive business environment.

Challenges to Overcome:

- **Job Market Strain:** Despite the advantage, India faces challenges with unemployment and underemployment. The rapid growth of the workforce hasn't been matched by job creation, leaving many unemployed or stuck in low-paying informal jobs.
- **Education Quality:** The demographic dividend's benefits hinge on a well-educated and skilled workforce. However, India struggles with outdated curriculums, inadequate infrastructure, and limited access to quality education, particularly in rural areas.
- Healthcare Concerns: The health of the working-age population is critical. Challenges like
 insufficient healthcare facilities and limited access to quality care can hinder productivity and
 increase healthcare expenses.
- **Gender Gap:** Unequal education and workforce participation for women remain a hurdle. Empowering women through education and job opportunities is vital to maximize the demographic dividend by utilizing the full potential of the available workforce.



- **Informal Economy:** A significant portion of India's workforce operates in the informal sector, characterized by low wages, job insecurity, and limited social security. This informality poses challenges in terms of productivity, job stability, and overall economic contribution.
- **Skills Mismatch:** The skills people possess often don't align with the demands of the evolving job market. Bridging this gap requires aligning education with the changing needs of the economy and providing opportunities for continuous skill development.
- **Urban-Rural Divide:** Disparities between urban and rural areas in education, infrastructure, and job opportunities hinder the effective utilization of the demographic dividend. Ensuring inclusive development across regions is crucial for maximizing the potential benefits.

India's demographic dividend presents a unique opportunity for economic growth. However, addressing challenges related to employment, education, healthcare, gender inequality, and skill development is crucial to harness this advantage and ensure sustainable and inclusive economic growth.



