

IBPS SO AGRICULTURAL FIELD OFFICER (SCALE I) MAINS
YEAR: 2016

Q1. Indian Institute of pulses research is located at?

- (a) Kanpur
- (b) Bhopal
- (c) Lucknow
- (d) Jaipur
- (e) Kolkata

Q2. National Research Centre for groundnut is located at?

- (a) Anand
- (b) Surat
- (c) Karnal
- (d) Junagarh
- (e) Ahmedabad

Q3. Dual purpose breed of cow in India is?

- (a) Hariyana
- (b) Gir
- (c) Sindhi
- (d) Sahiwaal
- (e) Deoni

Q4. Highest percent of fat in buffalo breed?

- (a) Murrah
- (b) Bhadawari
- (c) Jafrawadi
- (d) Mehsana
- (e) Neeli Ravi

Q5. Citrus cracking is due to?

- (a) Zine
- (b) Iron
- (c) Boron
- (d) Manganese
- (e) None of the above

Q6. Deficiency symptom of which of the following nutrient first appear on older or lower leaves?

- (a) Zinc
- (b) Iron
- (c) Copper
- (d) Manganese
- (e) Potassium

Q7. Which of the following is calculated in quintals per hectare?

- (a) Cost of cultivation
- (b) Cost of production
- (c) Biological Yield
- (d) Crop cutting
- (e) None of these

Q8. Seed rate (kg/ha.) of maize is?

- (a) 12-15kg/ha
- (b) 20-25kg/ha
- (c) 25-28kg/ha
- (d) 30-35kg/ha
- (e) 17-20kg/ha

Q9. No till planter is used for?

- (a) Sowing
- (b) Ploughing
- (c) Harrowing
- (d) Weeding
- (e) Harvesting

Q10. Aluminium phosphide?

- (a) Fungicide
- (b) Weedicide
- (c) Rodenticide
- (d) Herbicide
- (e) Insecticide

Q11. Khapra Beetle is related to?

- (a) Storage food grain pest
- (b) Gram pest
- (c) Lentil Pest
- (d) Maize Pest
- (e) None of these

Q12. Which agriculture product is exported at large number from India?

- (a) Onion
- (b) Marigold
- (c) Wheat
- (d) Chilli
- (e) Potato

Q13. Which of the following is a variety of onion?

- (a) JBL1
- (b) Agri found
- (c) Kufri Jyoti
- (d) JG11
- (e) All of these

Q14. Maximum production and area of potato is under which state?

- (a) U.P.
- (b) M.P.
- (c) Punjab
- (d) Haryana
- (e) Himachal Pradesh

Q15. Central Agricultural University is located in?

- (a) Imphal
- (b) Bhopal
- (c) Lucknow
- (d) Kanpur
- (e) Jodhpur

Q16. Which of the following is a famous variety of Mandarin?

- (a) Encore
- (b) Kinnow
- (c) Pixie
- (d) Alankar
- (e) None of the above

Q17. Delinting of cotton is done using?

- (a) HCl
- (b) CuSO_4
- (c) ZnSO_4
- (d) H_2SO_4
- (e) FeO

Q18. Most popular variety of Mango in North India is?

- (a) Dashari
- (b) Langda
- (c) Alphonso
- (d) Neelam
- (e) All of these

Q19. Famous variety of grape in India is?

- (a) Honeydew
- (b) Nawab e shahi
- (c) Thompson seedless
- (d) Kinnow
- (e) Neelam

Q20. Black heart of potato is a _____.

- (a) Fungal Disease
- (b) Viral Disease
- (c) Bacterial Disease
- (d) Physiological disorder
- (e) None of these

Q21. Rain filtration through soil surface is known as _____.

- (a) Infiltration
- (b) Percolation
- (c) Evaporation
- (d) Transpiration
- (e) None of these

Q22. Alkali soil has a pH of _____.

- (a) 7
- (b) <7
- (c) >8
- (d) <8.5
- (e) >8.5

Q23. Oat production in India is?

- (a) 2-3 tonnes
- (b) 4-5 tonnes
- (c) 1-2 tonnes
- (d) 5-6 tonnes
- (e) 6-7 tonnes

Q24. Vasantrya Naik award is for?

- (a) Variety Development
- (b) Horticultural Revolution
- (c) Milk Revolution
- (d) Best research in dryland farming
- (e) None of these

Q25. Available water for plant growth is?

- (a) Hygroscopic Water
- (b) Total Water
- (c) Capillary Water
- (d) Gravitational Water
- (e) None of these

Q26. Indian Journal agricultural science is published in?

- (a) Yearly
- (b) Quarterly
- (c) Weekly
- (d) Monthly
- (e) Half-yearly

Q27. "Pramalini" is a variety of?

- (a) Onion
- (b) Potato
- (c) Grapes
- (d) Kagzi lime
- (e) Mandarin

Q28. Grape cutting time?

- (a) Jan.-feb
- (b) Mar.-April
- (c) Oct.-Nov
- (d) May-June
- (e) Aug.-Sept

Q29. Spacing of Apple?

- (a) $6\text{M} \times 6\text{M}$
- (b) $5\text{M} \times 6\text{M}$
- (c) $3\text{M} \times 3\text{M}$
- (d) $4\text{M} \times 4\text{M}$
- (e) $5\text{M} \times 5\text{M}$

Q30. High density planting in banana?

- (a) $1.2\text{M} \times 1.2\text{M}$
- (b) $6\text{M} \times 6\text{M}$
- (c) $5.5\text{M} \times 5.5\text{M}$
- (d) $4.2\text{M} \times 4.2\text{M}$
- (e) $3.5\text{M} * 3.5\text{M}$

Q31. Micro propagation is mainly done in fruit crops?

- (a) Jack-fruit
- (b) Lilly
- (c) Guava
- (d) Marigold
- (e) None

Q32. Die-back of citrus occurs due to the deficiency?

- (a) Cu
- (b) Zn
- (c) Mn
- (d) Fe
- (e) None of these

Q33. Which is primary tillage implement?

- (a) Harvester
- (b) Thresher
- (c) Winnowing
- (d) Wooden plough
- (e) None of these

Q34. Egg parasitoid?

- (a) Tricogramma
- (b) VAM
- (c) Tricoderma
- (d) Mycorrhizae
- (e) All of these

Q35. Mango variety which is a planted at 1600 plants/ha.?

- (a) Langda
- (b) Neelam
- (c) Alfanso
- (d) Dasheri
- (e) Aamrapali

Q36. Apex Institute for agriculture marketing in India?

- (a) Nafed
- (b) CREDA
- (c) NABARD
- (d) APEDA
- (e) ATMA

Q37. Best control method for stored grain pest?

- (a) Spraying
- (b) Granular
- (c) Powder Spray
- (d) Fumigation
- (e) All of these

Q38. Little leaf of Litchi?

- (a) Zn
- (b) Mn
- (c) Mg
- (d) Cu
- (e) Al

Q39. Die-back of citrus?

- (a) Cu
- (b) Zn
- (c) Al
- (d) P
- (e) N

Q40. Which one is main function of Agmark?

- (a) Production
- (b) Yield Loss
- (c) Productivity Increase
- (d) Maintain quality of commodity
- (e) None

Q41. Most popular variety of tomato?

- (a) Pusa Purple Round
- (b) Agri found
- (c) Pusa ruby
- (d) Babydoll
- (e) Pusa giant

Q42. Variety of mango is available in May- August?

- (a) Dasheri
- (b) Amrapali
- (c) Alphonso
- (d) None
- (e) Both (b) & (c)

Q43. The main storage polysaccharide in animal cell is?

- (a) Fat
- (b) Glutin
- (c) Glucose
- (d) Glycogen
- (e) None of these

Q44. Indian Journal of fertilizers is published by?

- (a) NDRI
- (b) IVRI
- (c) IARI
- (d) ICAR
- (e) Fertilizer association of India

Q45. Which variety of radish can be grown throughout the year?

- (a) Pusa Giant
- (b) Pusa Himani
- (c) Pusa red
- (d) Pusa Nanha
- (e) Pusa ivoti

Q46. Leaf curl of chili is due to?

- (a) Weevil
- (b) Khapra Beetle
- (c) White Fly
- (d) White Grub
- (e) Gram Caterpillar

Q47. Which statement is incorrect in relation of drip irrigation?

- (a) Water application efficiency is high
- (b) Field leveling is not necessary
- (c) Soil erosion is lessened
- (d) Weed growth is lessened
- (e) Low fertilizer use efficiency

Q48. Proping done in?

- (a) Citrus
- (b) Banana
- (c) Papaya
- (d) Mango
- (e) Litchi

Q49. Which sheep hairs used in best carpet wool?

- (a) Gaddi
- (b) Barberi
- (c) Chanthangi
- (d) Chokla
- (e) Changa

Q50. Early maturity variety of Maize?

- (a) Ganga Safeda
- (b) Lucknow safeda
- (c) K-25
- (d) (a), (b) & (c)
- (e) None of these

Solutions

S1. Ans.(a)

Sol. The Indian Institute of Pulses Research (IIPR) is located in Kanpur, Uttar Pradesh, India. IIPR is an agricultural research institute dedicated to the improvement and promotion of pulse crops in the country.

S2. Ans.(d)

Sol. ICAR- National Research Centre for Groundnut is located in Junagarh, Gujarat.

S3. Ans.(a)

Sol. Hariyana is a dual-purpose breed of cow mainly found in Karnal, Hisar and Gurgaon district of Haryana, Delhi and Western M.P. The milk yield is 1140 -4500 kgs. Bullocks are powerful for road transport and rapid ploughing.

S4. Ans.(b)

Sol. Among the world's best buffalo genetic resources available in India, 'Bhadawari' is better known for its milk fat percentage, recorded as high as 13%.

S5. Ans.(e)

Sol. Citrus fruit cracking is not due to any nutrient deficiency but is due to sudden changes in temperature and also due to moisture stress condition. Cracking of fruits may be radial or transverse. Secondary infection is also possible due to *Aspergillus*, *Fusarium* or *Alternaria*

S6. Ans.(e)

Sol. Deficiency symptoms of potassium first appear on older or lower leaves of a plant. Potassium is a macronutrient essential for various physiological processes in plants, including enzyme activation, osmoregulation, and the synthesis of carbohydrates and proteins. When a plant experiences a deficiency in potassium, it tends to mobilize this nutrient from older leaves to younger tissues, leading to symptoms primarily appearing in the older leaves.

S7. Ans.(b)

Sol. Quintals per hectare is a unit commonly used to express the productivity or yield of crops. In the context of agriculture, the cost of production is often calculated in terms of the amount of the crop produced per hectare. This measure helps farmers and policymakers assess the economic efficiency of agricultural practices.

S8. Ans.(e)

Sol. In maize, for optimum yield, a population of 60-75 thousand plants per hectare (24 - 30 thousand plants per acre) at harvest is required.

17 to 20 kg of seed per hectare for the grain crop is needed.

S9. Ans.(a)

Sol. A no-till planter is specifically designed for the process of sowing seeds without prior ploughing or tillage of the soil. In traditional agriculture, ploughing is a common practice to prepare the soil for planting by turning it over and breaking up the soil surface. However, a no-till planter eliminates the need for ploughing or tilling. Instead, it directly places seeds into untilled soil, helping to conserve soil structure, reduce erosion, and minimize soil disturbance.

S10. Ans.(c)

Sol. Aluminium phosphide is a compound commonly used as a rodenticide. It releases phosphine gas, which is highly toxic to rodents. This gas interferes with cellular respiration, leading to the death of the target pests. While it is primarily used as a rodenticide to control rodent populations, it is not used as a fungicide, weedicide, herbicide, or insecticide. Therefore, option (c) Rodenticide is the correct classification for aluminium phosphide.

S11. Ans.(a)

Sol. The Khapra Beetle (*Trogoderma granarium*) is a notorious pest that primarily infests stored food grains. This beetle is particularly known for its destructive impact on stored cereals and grains, including wheat, rice, barley, and other similar food commodities. The larvae of the Khapra Beetle feed on the stored grains and can cause significant damage, leading to losses in stored food supplies. Due to its ability to damage and contaminate large quantities of grains, the Khapra Beetle is a major concern in grain storage facilities and poses a threat to food security. Therefore, option (a) accurately identifies the Khapra Beetle as a storage food grain pest.



S12. Ans.(a)

Sol. India is a significant exporter of onions, and it is one of the major agricultural products exported in large numbers.

S13. Ans.(b)

Sol. Agrifound is a superior variety of onion. The variety has two types-

Agrifound Dark Red: Bulbs are dark red, globular round in shape, 4-6 cm in size with tight skin and moderately pungent. Crop matures in 90-100 days after transplanting. Bulbs contain 11-12% total soluble solids, 13-14% dry matter and 10.07 micro mole/g pyruvic acid. The variety gives an average yield of 300 q/ha. It has been notified by the Govt. of India for growing in kharif season.



Agrifound Light Red: Bulbs are attractive light red, globular round in shape with reddish thick inner scales. Crop matures in 110-120 days after transplanting. Keeping quality of bulbs is good. They contain 13% total soluble solids, 14-15% dry matter and 12.20 micro mole/g pyruvic acid. The variety gives an average yield of 300-350 q/ha. It has been notified by the Govt. of India for growing in rabi season.



S14. Ans.(a)

Sol. Uttar Pradesh (U.P.) is known for having the maximum production and area under potato cultivation in India.

S15. Ans.(a)

Sol. Central Agricultural University is located in Imphal, which is the capital city of Manipur, a state in northeastern India.

S16. Ans.(b)

Sol. Kinnow is a famous variety of Mandarin. It is a hybrid citrus fruit, a cross between a 'King' mandarin and a 'Willow Leaf' variety of orange. Kinnow is known for its sweet and tangy flavor, as well as its easy-to-peel skin. It is cultivated primarily in India and Pakistan and has gained popularity for its delicious taste and high vitamin C content.



S17. Ans.(d)

Sol. Delinting of cotton is the process of removing the cotton fibers from the seeds and separating them from the adhering lint. This is commonly done using sulfuric acid (H_2SO_4). The acid treatment helps in breaking down and removing the fibers surrounding the cotton seeds.

**S18. Ans.(a)**

Sol. Dashari is indeed one of the most popular varieties of mangoes in North India. It is known for its sweet and juicy taste, making it a favorite among mango enthusiasts. Dashari mangoes are typically medium to large in size, with a distinct aroma and a pleasant flavor. The variety is widely cultivated in the northern parts of India, including regions like Uttar Pradesh and Bihar.

S19. Ans.(c)

Sol. Thompson Seedless is a famous variety of grape in India. This grape variety is widely cultivated for table consumption and raisin production. The grapes are green, seedless, and have a sweet flavour, making them popular among consumers. They are used both for fresh consumption and for drying to produce raisins.

S20. Ans.(d)

Sol. Blackheart can develop around harvest, in storage and in transit as inside trucks. It is caused by an oxygen deficit at the center of the tuber. Oxygen deprivation results in asphyxiation, loss of respiration, and death of cells.

**S21. Ans.(a)**

Sol. Infiltration refers to the process by which rainwater or water from any other source penetrates or filters through the soil surface and enters the soil.

S22. Ans.(e)

Sol. Alkali soil is characterized by a high pH level, typically greater than 8.5. Soils with a pH above 7 are considered alkaline, and when the pH exceeds 8.5, it is specifically referred to as alkali soil. The high pH in alkali soil is often attributed to the presence of basic minerals, such as carbonates and bicarbonates.

S23. Ans.(a)

Sol. Oat production can vary based on factors such as climate, soil conditions, agricultural practices, and regional differences.

The given data of 2-3 tonnes suggests the yield of oats per hectare in India in the year 2016.

S24. Ans.(d)

Sol. The Vasantrya Naik Award is conferred for the "Best Research in Dryland Farming." This award is named after Vasantrya Naik, who was an Indian politician and served as the Chief Minister of Maharashtra. The award recognizes outstanding contributions and achievements in the field of research related to dryland farming practices.

S25. Ans.(c)

Sol. Capillary water is held in the capillary pores (micro pores). Capillary water is retained on the soil particles by surface forces. It is held so strongly that gravity cannot remove it from the soil particles. The molecules of capillary water are free and mobile and are present in a liquid state. Due to this reason, it evaporates easily at ordinary temperature though it is held firmly by the soil particle; plant roots are able to absorb it. Capillary water is, therefore, known as available water. The capillary water is held between 1/3 and 31 atmosphere pressure.

S26. Ans.(b)

Sol. The Indian Journal of Agricultural Sciences is a scientific journal that publishes research articles and papers related to agricultural sciences. It is typically published quarterly, meaning it is released four times a year.

S27. Ans.(d)

Sol. Pramalini is a variety of Kagzi lime, which is a type of citrus fruit. Kagzi lime is known for its distinctive, thick, and bumpy skin. It is commonly used for culinary purposes, including in the preparation of beverages, culinary dishes, and as a flavoring agent.

S28. Ans.(c)

Sol. The ideal time for grape cutting (pruning) is generally during the dormant season when the grapevines are not actively growing. This period allows for the removal of unwanted growth and shaping of the vines. In many grape-growing regions, the recommended time for grape cutting or pruning is during the months of October to November. This timing varies slightly depending on the specific climate and grape variety.

S29. Ans.(a)

Sol. The spacing of apple trees is an important consideration in orchard management. The recommended spacing for apple trees can vary based on factors such as the apple variety, rootstock, and local growing conditions. The spacing of apple trees is 6 meters by 6 meters (6M × 6M). This means that the distance between each apple tree should be 6 meters both longitudinally and latitudinally.

S30. Ans.(a)

Sol. High-density planting in banana involves planting the banana plants at closer spacing to maximize land utilization and increase productivity. The specified spacing for high-density planting in banana is often around 1.2 meters by 1.2 meters (1.2M × 1.2M). This close spacing allows for more plants per unit area, leading to increased yield.

S31. Ans.(a)

Sol. Micropropagation is a plant propagation technique in which small plant parts, such as shoot tips or nodal segments, are cultured in vitro to produce numerous genetically identical plants. Micropropagation is commonly used in various fruit crops, including Jack-fruit (*Artocarpus heterophyllus*). This technique allows for the rapid multiplication of desirable plant varieties.

S32. Ans.(a)

Sol. Die-back in citrus trees is a condition where the branches or shoots of the tree die from the tip backward towards the trunk. The die-back in citrus is often associated with copper (Cu) deficiency. Copper is an essential micronutrient for plants, and its deficiency can lead to various physiological disorders, including die-back.

S33. Ans.(d)

Sol. Primary tillage involves the initial soil preparation before planting crops. It aims to break up the soil, incorporate crop residues, and prepare a suitable seedbed. The primary tillage implement mentioned in the options is a "Wooden plough." A plough, typically made of wood or metal, is used to turn over and loosen the soil, making it ready for planting.

S34. Ans.(a)

Sol. An egg parasitoid is an organism that lays its eggs in or on the eggs of another insect, leading to the parasitism of the host insect's eggs. Trichogramma is a genus of tiny wasps that are widely used as biological control agents in agriculture. They are known as egg parasitoids because their larvae develop inside the eggs of various insect pests, preventing the hatching of the pest larvae.

S35. Ans.(e)

Sol. Aamrapali is a popular variety of mango, and it is known for its delicious taste and aroma. The specified planting density for Aamrapali is mentioned as 1600 plants/ha. This indicates the recommended number of Aamrapali mango plants to be planted per hectare.

S36. Ans.(a)

Sol. The correct answer is (a) Nafed (National Agricultural Cooperative Marketing Federation of India Ltd). Nafed is one of the prominent agricultural marketing organizations in India. It plays a crucial role in promoting cooperative marketing of agricultural produce to benefit farmers. Nafed operates as a multi-state cooperative society and is involved in various activities related to agricultural marketing, procurement, processing, and distribution.

S37. Ans.(d)

Sol. Fumigation is considered one of the most effective methods for controlling stored grain pests. It involves the use of gaseous fumigants to kill or control pests in stored grains. Fumigants penetrate the stored grain mass, reaching all parts of the storage facility and effectively controlling a wide range of insect pests and their life stages.

S38. Ans.(a)

Sol. Little leaf in litchi is often associated with a deficiency of zinc (Zn). Zinc deficiency can lead to symptoms such as stunted growth, smaller and distorted leaves, and interveinal chlorosis, which are characteristic of little leaf disorder.

S39. Ans.(a)

Sol. Die-back of citrus is often associated with a deficiency of copper (Cu). Copper deficiency in citrus trees can lead to symptoms such as dieback of shoot tips, wilting, and twig dieback.

S40. Ans.(d)

Sol. Agmark is a certification mark employed on agricultural products in India, including food and non-food items. The main function of Agmark is to ensure and maintain the quality of agricultural commodities.

S41. Ans.(c)

Sol. Pusa Ruby is mentioned as the most popular variety of tomato. Pusa Ruby is a popular and widely cultivated variety known for its good yield and quality.

S42. Ans.(a)

Sol. Dasherri is a variety of mango that is typically available during the months of May to August. It is known for its sweet and juicy taste.

S43. Ans.(d)

Sol. Glycogen is the main storage polysaccharide in animal cells. It is a complex carbohydrate that serves as a form of energy storage in animals, particularly in the liver and muscles.

S44. Ans.(e)

Sol. The Indian Journal of Fertilizers is published by the **Fertilizer Association of India**.

S45. Ans.(b)

Sol. Pusa Himani is a variety of radish that can be grown throughout the year.

S46. Ans.(c)

Sol. Leaf curl of chili is a common symptom caused by whiteflies.

S47. Ans.(e)

Sol. Drip irrigation is known for its efficiency in water use, reducing soil erosion, and controlling weed growth. The statement about low fertilizer use efficiency is incorrect. Drip irrigation is designed to provide efficient and precise application of both water and fertilizers, ensuring that plants receive the necessary nutrients.

S48. Ans.(b)

Sol. Propping is a horticultural practice involving the use of support or stakes to hold up the branches or fruit bunches of plants like banana. In banana cultivation, propping is often done to provide support to the heavy bunches of bananas, preventing them from bending or breaking due to their weight.

S49. Ans.(a)

Sol. Sheep are small in size, and are found in Kishtwar and Bhadarwah tehsils of Jammu. A large number inhabit the Kulu valleys in HP winter, and in summer they graze the highest elevations of them Pir Panjal Mountains, mostly in the Paddar range. Rams are horned, ewes hornless; fleece is generally white with brown coloured hair on the face. Wool is fine and lustrous; average annual yield is 1.13 kg per sheep, clipped thrice a year. A part of this clip is sent to Dhariwal mills and Amritsar markets. Undercoat is used for the manufacture of high quality Kulu shawls and blankets.

S50. Ans.(a)

Sol. Ganga Safeda is known for its early maturity. It is a variety of maize that matures early, making it suitable for regions with a shorter growing season.