TECHNICAL SUBJECT (AGRICULTURE)

PAPER - 1

Attempt all questions.

All questions carry equal marks of two (2) each.

1. At the vegetative growth stage, flowering is stop in food grain crops known as
   (a) Determinate growth  (b) Indeterminate growth
   (c) Sigmoid growth curve  (d) Grain growth Period

2. Which one of the following is the correct sequence in the decreasing order of production of the given food grain in India?
   (a) Wheat-rice-pulses-coarse cereal  (b) Rice-wheat-pulses-coarse cereal
   (c) Wheat-rice-coarse cereal-pulses  (d) Rice-wheat-coarse cereal-pulses

3. Which of the following is NOT an example of in-situ conservation strategy?
   (a) Biosphere reserve  (b) Botanical garden
   (c) National Park  (d) Sacred groves

4. The word ecology was coined by the
   (a) Ernest Haeckel  (b) Aristotle
   (c) Theophrastus  (d) Henslo De Vries

5. Mizoram falls in which agro climatic region?
   (a) Humid Eastern Himalayan Region
   (b) Humid Bengal Assam Basin
   (c) Humid Eastern Himalayan Region and Bay Island
   (d) Humid Western Himalayan Region

6. In which layer weather phenomena like clouds, fog, dews, rain etc. occur?
   (a) Thermosphere  (b) Troposphere
   (c) Mesosphere  (d) Stratosphere

7. The yield of both crops are higher than of their pure crops on unit area basis is known as
   (a) Synergetic cropping  (b) companion cropping
   (c) Doubling the farmer’s income  (d) Multiple cropping

8. Wind direction towards which it blow is known as
   (a) Wind direction  (b) Wind vane
   (c) Wind wards  (d) Ice wards

9. Scientific name of pop corn?
   (a) zea mays saccharata  (b) Zea mays indurata
   (c) Zea mays indentata  (d) Zea mays everta
10. Saline Alkali soil having
   (a) EC > 4mmho/cm at 25°C, ESP <15% and pH<8.5
   (b) EC < 4mmho/cm at 25°C, ESP> 15% and pH<8.5
   (c) EC > 4mmho/cm at 25°C, ESP> 15% and pH<8.5
   (d) EC > 4mmho/cm at 25°C, ESP> 15% and pH>8.5

11. Community Development Programme in 2nd Oct. 1952 has been launched in India due to success of
   (a) Etawah Pilot Project
   (b) Lab to land Programme
   (c) Panchyati Raj
   (d) IRDP

12. The portion which is actually brought to the market at a particular time for sale is known as
   (a) Marketable Surplus
   (b) Marketed surplus
   (c) Marketable demand
   (d) Marketable supply

13. Match list I (common name of herbicides) with list II (trade name of herbicides)

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
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<tbody>
<tr>
<td>A. Alachlor</td>
<td>1. Basalin</td>
</tr>
<tr>
<td>B. Oxadiazon</td>
<td>2. Stomp</td>
</tr>
<tr>
<td>C. Pendimethalin</td>
<td>3. Ronstar</td>
</tr>
<tr>
<td>D. Fluchloralin</td>
<td>4. Laso</td>
</tr>
</tbody>
</table>

Codes : A B C D
(a) 4 3 2 1
(b) 3 4 1 2
(c) 4 3 1 2
(d) 3 4 2 1

14. Which of the following two crops are responsible for almost 75% of pulse production in India?
   (a) Gram and Mung bean
   (b) Gram and Pigeon pea
   (c) Mung bean and pigeon pea
   (d) Pea and lentil

15. Which of the following pairs are correctly matched?

<table>
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<tr>
<td>A. Humus</td>
<td>1. Ligno-protein complex</td>
</tr>
<tr>
<td>B. Humin</td>
<td>2. Insoluble in dilute alkali</td>
</tr>
<tr>
<td>C. Fulvic acid</td>
<td>3. High molecular weights</td>
</tr>
<tr>
<td>D. Humic acid</td>
<td>4. Insoluble in dilute acid</td>
</tr>
</tbody>
</table>

Codes :
(a) 2, 3 and 4
(b) 1, 2 and 3
(c) 1, 2 and 4
(d) 1, 3 and 4
16. Match list I (common name of herbicides) with list II (trade name of herbicides)

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<tr>
<td>A. Norin-10</td>
<td>1. Resistant to Puccinia recondita</td>
</tr>
<tr>
<td>B. Opaque-2</td>
<td>2. Semi-dwarfing habit in rice</td>
</tr>
<tr>
<td>C. Dee-gee-woo-gen</td>
<td>3. Protein content in maize</td>
</tr>
<tr>
<td>D. Lr genes</td>
<td>4. Short duration in wheat</td>
</tr>
</tbody>
</table>

Codes: A B C D
(a) 4 3 1 2
(b) 4 3 2 1
(c) 3 4 1 2
(d) 3 4 2 1

17. In which period North-east monsoon causes rainfall in South India?
(a) November – December
(b) February – March
(c) September – October
(d) May – June

18. If farmers practices Sugarcane-cotton-wheat the cropping intensity will be
(a) 100 %
(b) 200 %
(c) 150 %
(d) 300 %

19. Norman Borlaug was given Nobel Prize in which field?
(a) Agriculture
(b) Economics
(c) Medicine
(d) Peace

20. Which of the following pair is NOT correctly matched?
(a) Renneting-Cheese
(b) Genetic Engineering-Plasmids
(c) Golden rice-Vitamin A
(d) Ozone layer-Troposphere

21. Which of the following electromagnetic radiations has the maximum energy?
(a) Visible light
(b) Infrared rays
(c) Ultraviolet rays
(d) X-rays

22. Methane is emitted from which of the following?
(a) Paddy fields only
(b) Termitary only
(c) Both (a) & (b)
(d) None of these

23. Who was the first Vice-Chairman of the NITI Ayog?
(a) Arvind Panagariya
(b) Raghuram Rajan
(c) Chandrashekhara Subramanyam
(d) Rajiv Kumar

24. The deficiency of which one of the following causes Khaira disease?
(a) Zinc
(b) Boron
(c) Copper
(d) Phosphorus

25. Which one of the following type of soils is most suitable for groundnut cultivation?
(a) Sandy and sandy-loam soil
(b) Loam and clay soil
(c) Clayey soil
(d) Silty soil
26. A farm is said to be diversified when
   (a) Crop enterprise is mixed with livestock enterprise
   (b) Any one of the enterprises contributes more than 50% of the total income.
   (c) None of the enterprises contributes more than 50% of the total income
   (d) Crop enterprise is combined with forestry

27. Zero Budget Natural Farming (ZBNF)
   (a) To promote organic farming
   (b) Cost of growing and harvesting plants is zero
   (c) Without adding any fertilizers and pesticides or any other foreign elements.
   (d) All of these

28. What is the correct order of C3 plants?
   (a) Sugarcane-Paddy-Bajra-Maize
   (b) Groundnut-Potato-Soybean-Wheat
   (c) Potato-Paddy-Bajra-Wheat
   (d) Paddy –Sugarcane-Soybean-Bajra

29. Ladang, Milap, Roca & Ray are also known as
   (a) Intensive Farming
   (b) Commercial Farming
   (c) Nomadic Farming
   (d) Shifting Farming

30. Any feature of an organism or its part which enable it to exist under condition of habitant is known as?
   (a) Adaptive Variation
   (b) Adjustment
   (c) Acclimatization
   (d) Adaptation

31. Plant which growing under direct sunlight and those growing under shade called
   (a) Heliophytes and sciophytes
   (b) sciophytes and Heliophytes
   (c) Psamophytes and Heliophytes
   (d) Heliophytes and Psamophytes

32. The percentage of Nitrogen, Oxygen and Carbon Dioxide in the atmosphere are
   (a) 78 % N\textsubscript{2}, 20.95% O\textsubscript{2} and CO\textsubscript{2} 0.04%
   (b) 78 % N\textsubscript{2}, 20% O\textsubscript{2} and CO\textsubscript{2} 0.04%
   (c) 78 % N\textsubscript{2}, 20.95% O\textsubscript{2} and CO\textsubscript{2} 0.004%
   (d) 78 % N\textsubscript{2}, 20% O\textsubscript{2} and CO\textsubscript{2} 0.044%

33. Land Equivalent Ratio (LER) is related to
   (a) Intercropping
   (b) Sequential cropping
   (c) Ratooning
   (d) None of these

34. The beetle zygogramma bicolorata is used to control the weed
   (a) Water Hycianth
   (b) Parthenium
   (c) Trianthema
   (d) Cyprus

35. The practice of allowing the regrowth of the planted crop is known as
   (a) Mixed cropping
   (b) Ratooning
   (c) Sequential cropping
   (d) Intercropping

36. Dehulled rice grain is known as
   (a) White rice
   (b) Brown rice
   (c) Red rice
   (d) Grey rice

37. Green revolution has been most successful in
   (a) Wheat and potato
   (b) Wheat and rice
   (c) Tea and coffee
   (d) Barley and rice
38. The instrument used for measuring depth of water table is known as
   (a) Lysimeter  (b) Odometer
   (c) Piezometer  (d) Evaporimeter

39. Growing of coconut, black pepper and ginger simultaneously in the same field is called
   (a) Relay cropping  (b) Inter cropping
   (c) Mixed cropping  (d) Multistoried cropping

40. Which one of the following is a competitive market?
   (a) Perfect market  (b) Capital market
   (c) Primary market  (d) Wholesale market

41. Planting of succeeding crop before harvesting the proceeding crop is known as
   (a) Ratoon cropping  (b) Sequence cropping
   (c) Mono cropping  (d) Relay cropping

42. The primary role of MANAGE is to
   (a) Develop management skills  (b) Promote entrepreneurship
   (c) Generate employment  (d) Promote spiritual talent

43. The value of seeds and plants, manures and fertilizers, insecticides, fungicides and irrigation charges
   are known as
   (a) Variable cost  (b) Input cost
   (c) Fixed cost  (d) Machinery cost

44. Growing of two or more crops simultaneously on the same piece of land with definite row pattern is called
   (a) Inter cropping  (b) Multiple cropping
   (c) Mixed cropping  (d) Sequence cropping

45. Unit of solar radiant energy is
   (a) Langley  (b) Isotach
   (c) Lysi  (d) Isobel

46. A good quality irrigation water should have an EC of
   (a) < 4.5 ds/m  (b) < 0.5 ds/
   (c) < 1.5 ds/m  (d) 3 to 5 ds/m

47. Which one of the following herbicide is non-selective in action?
   (a) Atrazine  (b) Alachlor
   (c) Butacheor  (d) Paraquat

48. The hulling percentage in rice is
   (a) 60%  (b) 50%
   (c) 70%  (d) 80%

49. Phalaris minor is a major weed in
   (a) Rice  (b) Wheat
   (c) Maize  (d) Sorghum

50. Pulses are rich source of
   (a) Proteins and vitamins  (b) Lysine and Tryptophan
   (c) Vitamins and Tryptophan  (d) Proteins and Lysine
51. It is a well accepted conservation measure in controlling run-off and soil erosion and thereby maintaining fertility of soil
   (a) Strip cropping  (b) Inter cropping  (c) Contour farming  (d) Mixed cropping

52. The formula to convert centigrade into Fahrenheit is
   (a) \( ^0 F = \left( ^0 C - 32 \right) \times \frac{5}{9} \)  
   (b) \( ^0 F = \left( ^0 C - 5 \right) \times \frac{32}{9} \)  
   (c) \( ^0 F = \left( ^0 C - 9 \right) \times \frac{5}{32} \)  
   (d) \( ^0 F = \frac{9}{5} \times ^0 C + 32 \)

53. Which of the following is a multipurpose tree species?
   (a) Albizia amara  (b) Azadirachta indica  (c) Albizia lebbeck  (d) All of these

54. Mechanical measures of soil conservation include
   (i) Contour bunding  (ii) Bench terracing  (iii) Check dams  (iv) Percolation ponds
   (a) i, ii, iv  (b) i, iii, iv  (c) i, ii, iii  (d) All of these

55. An electrical conductivity of less than one millimhos per cm indicates that the soil condition for plant growth is
   (a) Above normal  (b) Injurious  (c) Critical  (d) Normal

56. Causes of soil salinity
   (i) The soluble salts are leached from high-lying to low-lying areas due to high rainfall.  
   (ii) Irrigation of soils with saline water.
   (a) (i) is correct  (b) (ii) is correct  
   (c) Both are correct  (d) Both are not correct

57. Acid soils are characterized by a pH of
   (a) > 8  (b) < 6  (c) 8 to 10  (d) 7 to 8

58. Weakly joining of soil particle is referred to as
   (a) Granular structure  (b) Platy structure  (c) Crumb structure  (d) None of these

59. Alley cropping is known as
   (a) Cultivation of legume crops  (b) Food-cum-fruit system  (c) Silvi-pastural system  (d) Hedgerow inter cropping

60. The ratio of oil to seed in sunflower is
   (a) 40%  (b) 28%  (c) 60%  (d) 20%
61. Green manure crops in 50-60 days can accumulate
   (a) 80 kg N/ha  (b) 90 kg N/ha
   (c) 100 kg N/ha  (d) 60 kg N/ha

62. Which of the following institutes in India works for dryland agriculture?
   (i) CRIDA  (ii) ICRISAT
   (iii) APEDA  (iv) DANIDA
   (a) i and ii  (b) ii and iii
   (c) iii and iv  (d) i and iv

63. High protein content is found in and is also known as vegetables meat?
   (a) Rajmah  (b) Gram
   (c) Soybean  (d) Mung bean

64. Golden rice rich in
   (a) Vit-A  (b) Vit-B
   (c) Vit-C  (d) Vit-D

65. Maximum edible oil in India is contributed by?
   (a) Sunflower  (b) Mustard
   (c) Custard  (d) Ground nut

66. Which type of fertilizers India is fully depended on import?
   (a) Urea  (b) SSP
   (c) Potash  (d) Boron

67. Which of the following weeds have been introduced in India from other countries along with plant materials?
   (a) Argemone Mexicana  (b) Eicchornia crassipes
   (c) Parthenium  (d) All of these

68. Which of the following are pre-emergence herbicides?
   (a) Diquat  (b) Pendimethalin
   (c) Dalapon  (d) All of these

69. The field water efficiency of trickle irrigation?
   (a) 50-55%  (b) 50-85%
   (c) 80-90%  (d) 60-70%

70. Sub irrigation is used in areas with?
   (a) Low water table  (b) High water table
   (c) Sloppy terrain  (d) Flat terrain

71. When variable cost is zero, the total cost will be?
   (a) Equal to variable cost  (b) Equal to fixed cost
   (c) Equal to average variable cost  (d) None of these

72. Per quintal calculated cost is known as?
   (a) Cost of cultivation  (b) Cost of production
   (c) Cost of farming  (d) Cost of per hectare
73. When total product is highest, marginal product will be?
   (a) Minimum  (b) Increasing
   (c) Maximum  (d) Zero

74. When total cost is divided by total unit of the production, we get?
   (a) Marginal cost  (b) Average cost
   (c) Fixed cost    (d) Variable cost

75. Match the following statement?

<table>
<thead>
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<tbody>
<tr>
<td>A. Doubling farmers</td>
<td>1. Ministry of Skill Development &amp; Entrepreneurship (MSDE)</td>
</tr>
<tr>
<td>income</td>
<td>2. Attracting and Retaining Youth in Agriculture</td>
</tr>
<tr>
<td>B. Kiran</td>
<td>3. Base year 2015-16</td>
</tr>
<tr>
<td>C. ARYA</td>
<td>4. Empowering Agricultural Knowledge and innovation in North East</td>
</tr>
<tr>
<td>D. PMKVY</td>
<td></td>
</tr>
</tbody>
</table>

   **Codes:**
   (a) 4 3 1 2
   (b) 4 3 2 1
   (c) 3 4 1 2
   (d) 3 4 2 1

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