

MIZORAM PUBLIC SERVICE COMMISSION

TECHNICAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF GRADE-V OF MIZORAM AGRICULTURE SERVICE/AEO UNDER AGRICULTURE DEPARTMENT, GOVERNMENT OF MIZORAM. JUNE -2019

TECHNICAL SUBJECT (AGRICULTURE)

PAPER - I

Time Allowed : 2 hours

Full Marks : 150

Attempt all questions.

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

- At the vegetative growth stage, flowering is stop in food grain crops known as
 - Determinate growth
 - Indeterminate growth
 - Sigmoid growth curve
 - Grain growth Period
- Which one of the following is the correct sequence in the decreasing order of production of the given food grain in India?
 - Wheat-rice-pulses- coarse cereal
 - Rice-wheat-pulses-coarse cereal
 - Wheat-rice-coarse cereal-pulses
 - Rice-wheat-coarse cereal-pulses
- Which of the following is NOT an example of in-situ conservation strategy?
 - Biosphere reserve
 - Botanical garden
 - National Park
 - Sacred groves
- The word ecology was coined by the
 - Ernest Haeckel
 - Aristotle
 - Theophrastus
 - Hungo De Vries
- Mizoram falls in which agro climatic region?
 - Humid Eastern Himalayan Region
 - Humid Bengal Assam Basin
 - Humid Eastern Himalayan Region and Bay Island
 - Humid Western Himalayan Region
- In which layer weather phenomena like clouds, fog, dews, rain etc. occur ?
 - Thermosphere
 - Troposphere
 - Mesosphere
 - Stratosphere
- The yield of both crops are higher than of their pure crops on unit area basis is known as
 - Synergetic cropping
 - companion cropping
 - Doubling the farmer's income
 - Multiple cropping
- Wind direction towards which it blow is known as
 - Wind direction
 - Wind vane
 - Wind wards
 - Ice wards
- Scientific name of pop corn?
 - zea mays saccharata
 - Zea mays indurata
 - Zea mays indentata
 - Zea mays everta

10. Saline Alkali soil having

- (a) $EC > 4\text{mmho/cm}$ at 25°C , $ESP < 15\%$ and $\text{pH} < 8.5$
- (b) $EC < 4\text{mmho/cm}$ at 25°C , $ESP > 15\%$ and $\text{pH} < 8.5$
- (c) $EC > 4\text{mmho/cm}$ at 25°C , $ESP > 15\%$ and $\text{pH} < 8.5$
- (d) $EC > 4\text{mmho/cm}$ at 25°C , $ESP > 15\%$ and $\text{pH} > 8.5$

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)

List I

- A. Alachlor
- B. Oxadiazon
- C. Pendimethalin
- D. Fluchloralin

List II

- 1. Basalin
- 2. Stomp
- 3. Ronstar
- 4. Laso

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?

List I

- A. Humus
- B. Humin
- C. Fulvic acid
- D. Humic acid

List II

- 1. Ligno-protein complex
- 2. Insoluble in dilute alkali
- 3. High molecular weights
- 4. Insoluble in dilute acid

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)

List I

- A. Norin-10
- B. Opaque-2
- C. Dee-gee-woo-gen
- D. Lr genes

List II

- 1. Resistant to Puccinia recondita
- 2. Semi-dwarfing habit in rice
- 3. Protein content in maize
- 4. Short duration in wheat

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 % N₂, 20.95% O₂ and CO₂ 0.04%
 - (b) 78 % N₂, 20% O₂ and CO₂ 0.04%
 - (c) 78 % N₂, 20.95% O₂ and CO₂ 0.004%
 - (d) 78 % N₂, 20% O₂ and CO₂ 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) ${}^{\circ}F = ({}^{\circ}C - 32) \times \frac{5}{9}$ (b) ${}^{\circ}F = ({}^{\circ}C - 5) \times \frac{32}{9}$
(c) ${}^{\circ}F = ({}^{\circ}C - 9) \times \frac{5}{32}$ (d) ${}^{\circ}F = \frac{9}{5} {}^{\circ}C + 32$
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-pastoral 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 able to 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) Eicchornea 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?

List I

- A. Doubling farmers income
- B. Kiran
- C. ARYA
- D. PMKVY

List II

- 1. Ministry of Skill Development & Entrepreneurship (MSDE)
- 2. Attracting and Retaining Youth in Agriculture
- 3. Base year 2015-16
- 4. Empowering Agricultural Knowledge and innovation in North East

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

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