

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION :: VIJAYAWADA**

**AGRICULTURE OFFICER IN A.P AGRICULTURE SERVICE**

**PAPER-2 AGRICULTURE**

**INITIAL KEY**

<b>Q.NO.</b>	<b>Questions</b>	<b>Answer</b>
1.	The planting pattern that enables more efficient utilization of light, water and nutrients by individual plants is	Square
2.	Match (i) North-East monsoon (ii) South-West monsoon (iii) Cold weather period (iv) Pre-monsoon period	(a) January - February (b) March - May (c) October - December (d) June – September  c, d, a, b
3.	<b>Statement I-</b> Mixed farming is a type of subsistence farming. <b>Statement II-</b> The object of mixed cropping is to meet the family requirements.	Both the statements are correct
4.	Rainbow revolution pertains to	All of the given options
5.	Which of the following statements are true in the case of System of Rice Intensification (i) Use of minimum quantity of seeds (ii) Seedlings raised in flat bed (iii) Water level is always maintained (iv) Transplant single seedling in square grid pattern (v) Application of nitrogenous fertilizers using leaf colour chart	only i, iv, v

6.	Which among the mentioned implement that is used to form broken furrows with small dams, in order to prevent free runoff and blowing off the soil?	Basin Lister
7.	Which of the following instrument is used to measure relative humidity?	Psychrometer
8.	If the recommended fertilizer dose for lowland rice is 120 Kgs of N, 60 Kgs of P <sub>2</sub> O and 40 K <sub>2</sub> O, what is the amount of fertilizer required in the form of superphosphate?	375 kgs/ha
9.	Imagine a farmer has 10 hectares of land and has sown different crops in different seasons in one year; 10 ha (kharif), 10 ha (rabi) and 6 ha (summer). What is the Cropping Intensity Index (CII)?	260%
10.	Which among the following criterion used for harvesting of sugarcane? (i) Sucrose content more than 10% (ii) Brix reading more than 18% (iii) Sucrose content between 5-10% (iv) Brix reading less than 18%	Only (i) and (ii)
11.	Transplanting of healthy seedlings in Rice is done at this leaf stage.	4-5
12.	Rice variety released in Andhra Pradesh that is resistant to White Backed Plant Hopper (WBPH) is	Surya
13.	Match (i) Dent corn (ii) Pop corn (iii) Sweet corn (iv) Soft corn	(a) <i>Zea mays everta</i> (b) <i>Zea mays indentata</i> (c) <i>Zea mays amylacea</i> (d) <i>Zea mays saccharata</i>  b, a, d, c

14.	Castor oil has a very high percentage of	Ricinoleic acid
15.	Groundnut seed contains _____ % oil.	45
16.	Use of _____ controls the intensity of <i>Phalaris minor</i> in wheat	Isoproturan
17.	Highly drought resistant millet crop is	Kodo millet
18.	Sprouted cereals are a rich source of	Vitamin C
19.	Triticale is a cross between	Wheat and Rye
20.	Nipping in chickpea is done for this purpose	To enlarge branching
21.	Which of the following is not a Rabi season pulse?	Red gram
22.	Best season for potato cultivation	Rabi
23.	Sugar content in sugar beets is	13-18%
24.	Rabi maize receives _____ hours of sunshine than kharif maize.	More
25.	Fresh mint ( <i>Mentha spp.</i> ) contains ____ % essential oils	0.4
26.	Which among the following is ranked as the world's most serious weed?	<i>Cyperus rotundus</i>
27.	The chemical compounds that are used in particular herbicides to protect certain susceptible crops of injury are known as	Safeners

28.	Which of the following is an aquatic weed?	<i>Eichhornia crassipes</i>
29.	Which of the following herbicide is not applied at the pre-emergence stage of rice?	Propanil
30.	Which of the following is a contact herbicide?	Paraquat
31.	Parasitic weeds on sorghum and pearl millet is	<i>Striga spp</i>
32.	Solarisation is a method where the soil temperature is raised by this °C to control weeds	5 – 10
33.	A problem weed, whose seed once mixed with crop seed would be extremely difficult to separate is known as	Objectionable weed
34.	<i>Parthenium hysterophorus</i> can be controlled using	Chrysomelid beetle
35.	The water between saturation and field capacity, which is often considered unavailable to plants is known as	Gravitational water
36.	Water requirement (mm) for groundnut crop is	600-700
37.	EC (dS/m) for normal water	Less than 1.5
38.	Predominantly used method of irrigation for coconut	Basin flooding
39.	The most popular rice based cropping system in delta areas of Andhra Pradesh is	Rice – Pulses
40.	Irrigation requirement (IR) is given by the formula [ if, WR- Water Requirement, ER- Effective Rainfall, S- Soil Profile Contribution]	$IR = WR - (ER + S)$
41.	Percentage of applied water lost in rice fields through deep percolation is	50 – 70

42.	Calculate the average depth of irrigation, if an area of 1.0 ha is irrigated with a discharge of 250 litres per minute in 40 hours.	6 cm
43.	Furrows must be shorter on	Sandy soils
44.	A separate Department of Marketing was established in Andhra Pradesh on ----- to enforce the provisions of the Agricultural Produce Markets Act.	01-02-1962
45.	Phosphate mobilising bio fertilizer is	Vesicular Arbuscular Mycorrhizae
46.	The time between start of organic management and certification for perennial crops is	36 months
47.	Which of the following is not an attribute of organic farming?	Centralisation
48.	Which of the following is green leaf manure?	Gliricidia
49.	Which of the following is not bulky organic manure?	Oilcake
50.	Blue green algae provides _____ kgs of N per hectare in rice crops	25 – 50
51.	Azospirillum is commonly found in the roots of	Both Cereals and Grasses
52.	This herbal extract can be used as spray against moulds	Daffodil extract
53.	In India, standards for organic agriculture were announced in	2001
54.	Planting succeeding crop before the harvest of preceding crop is known as	Relay cropping
55.	Match	

	(i) Kharif (ii) Rabi (iii) Zaid	(a) Oil seeds (b) Sugarcane (c) Wheat	b, c, a
56.	Success of sustainable agriculture depends on		All the above in combination
57.	Permaculture is the other name of		Sustainable agriculture
58.	Living roots of _____ exudes toxic substances which inhibit the growth of plants growing near them		Cucumber
59.	Match (i) North-East India (ii) West Bengal (iii) Rajasthan	(a) Jute (b) Rice (c) Millets	b, a, c
60.	The conversion process from modern agriculture to sustainable agriculture takes		3 to 6 years
61.	_____ as summer crop results in improved yield of rice in kharif.		Greengram
62.	Ozone concentration of the stratosphere is declining at nearly _____ per cent per year.		0.5
63.	Brown plant hopper could be controlled effectively when the rice plant population is _____ per hill.		More than 20
64.	<p><b>Assertion (A):</b> The two terms namely farming systems and mixed farming are sometimes used interchangeably but it has a basic difference.</p> <p><b>Reason (R):</b> Subsistence is the important objective of farming system while higher productivity and profitability without altering the ecological balance is the objective of mixed farming.</p>		A is correct but R is the not right explanation to A.
65.	When an individual has an extra copy of particular chromosome in cells, the condition is known as		Trisomic

66.	Red gram ( <i>Cajanus cajan</i> ) is a _____ crop	Often cross pollinated		
67.	Self-pollinated crops express	Lesser degree of heterosis than cross-pollinated crops		
68.	The headquarters of International Centre for Tropical Agriculture (CIAT) is located at _____	Columbia		
69.	The concept of gene for gene hypothesis was first developed by	Flor		
70.	_____ is the ability of plants to maintain a favourable internal water balance under moisture stress.	Drought avoidance		
71.	Match the following crop with its emasculation technique <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">           (i) Rice            (ii) Cotton            (iii) Sesamum            (iv) Sugarcane         </td> <td style="width: 50%; vertical-align: top;">           (a) Hand emasculation            (b) Brown paper method            (c) Soda straw method            (d) Approach method         </td> </tr> </table>	(i) Rice (ii) Cotton (iii) Sesamum (iv) Sugarcane	(a) Hand emasculation (b) Brown paper method (c) Soda straw method (d) Approach method	b, c, a, d
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72.	The first intergeneric hybrid <i>Triticale</i> , was produced by	Rimpau		
73.	The method used for selection from segregating generations of crosses of self-pollinated crops is	Pedigree method		
74.	Match <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">           (i) Breeder seed            (ii) Foundation seed            (iii) Certified seed            (iv) Truthful label seed         </td> <td style="width: 50%; vertical-align: top;">           (a) Opal green            (b) White            (c) Azar blue            (d) Golden yellow         </td> </tr> </table>	(i) Breeder seed (ii) Foundation seed (iii) Certified seed (iv) Truthful label seed	(a) Opal green (b) White (c) Azar blue (d) Golden yellow	d, b, c, a
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75.	Seed Multiplication ratio for Tomato is	1: 400		
76.	Average weight (in grams) of 1000 paddy seeds is	20-25		

77.	<p>Arrange the following statements according to the phases in seed certification</p> <p>(i) Inspection &amp; testing of each seed lot while processing and bagging.</p> <p>(ii) Verification of seed source.</p> <p>(iii) Inspection of the seed crop in the field.</p> <p>(iv) Verification of land requirements</p> <p>(v) Tagging and labelling.</p>	iv, ii, iii, i, v
78.	The standards for minimum genetic purity for foundation seeds, certified varieties and certified hybrids are ____, ____ and ____ respectively.	99, 98, 95
79.	Which one of the following is not seed pre-conditioning and pre-cleaning equipment?	Air screen cleaner
80.	How many plants have to be counted during field inspection of maize seed crop?	100
81.	The priming agent used to improve seed vigour of groundnut during storage is _____	Calcium chloride
82.	The planting value of a seed lot with 85 % pure seeds and 98 % germination rate is	83.3 %
83.	<p>Match</p> <p>(i) Indian patent act</p> <p>(ii) Seeds (control) order</p> <p>(iii) Seeds (amendment) rules</p> <p>(iv) Plant patent act</p>	<p>(a) 1983</p> <p>(b) 1970</p> <p>(c) 1930</p> <p>(d) 1973</p> <p>b, a, d, c</p>
84.	Which among the following is not a gram negative bacteria?	



		<i>Bacillus subtilis</i>										
85.	PCR technique was developed by	Kary Mullis										
86.	The cells capable of differentiating into various kinds of cells is	Pluripotent cell										
87.	The low molecular weight molecules that do not individually stimulate antibody production in some plants is known as	Hapten										
88.	This suppresses adventitious shoot regeneration in plants	Gibberellin										
89.	Ovule culture was first attempted in this plant family	Orchidaceae										
90.	International centre for genetic engineering and biotechnology (ICGEB) was established at	Italy										
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92.	Which among the following is not an auxin?	BAP (benzylaminopurine)										
93.	This analytical technique is used to detect whether the transgenic plants produce the specific protein product of the introduced gene	Western blotting										
94.	The crop that has tolerance to salinity (saline soils) is	Sugarbeet										

95.	Soil that is rich in clay are	Vertisols										
96.	Predominant soil type in Andhra Pradesh	Red loamy soil										
97.	Soils containing 20 to 50 % decomposed organic matter are	Muck soil										
98.	<table border="1"> <thead> <tr> <th>Match Soil type</th> <th>Transported by</th> </tr> </thead> <tbody> <tr> <td>(i) Alluvial</td> <td>(a) Ice</td> </tr> <tr> <td>(ii) Colluvial</td> <td>(b) Water</td> </tr> <tr> <td>(iii) Glacial</td> <td>(c) Wind</td> </tr> <tr> <td>(iv) Eolian</td> <td>(d) gravity</td> </tr> </tbody> </table>	Match Soil type	Transported by	(i) Alluvial	(a) Ice	(ii) Colluvial	(b) Water	(iii) Glacial	(c) Wind	(iv) Eolian	(d) gravity	b, d, a, c
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99.	Soil order that is rich in organic content	Mollisol										
100.	Arrange the following based on the precedence of occurrence (a) Gully erosion (b) Sheet erosion (c) Rill erosion	b, c, a										
101.	Presence of organic matter _____ particle density	Decreases										
102.	Legumes are _____ to poor aeration	Sensitive										
103.	This green manuring crop grows well in alkaline soils and corrects alkalinity if repeatedly grown for 4-5 years	Daincha										
104.	Which of the following crop is an indicator plant for deficiency in Manganese?	Sugarbeet										

105.	Ash of this contain the highest amount of potash (K <sub>2</sub> O)	Tobacco stem
106.	Browning of curd in cauliflower is due to lack of _____	Boron
107.	Chlorophyll readings _____ with plant maturity	Decrease
108.	<b>Statement I:</b> Fertilised soils exert a strong influence on root growth <b>Statement II:</b> It is not necessary to fertilise the entire soil volume occupied by roots.	Both the statements are correct
109.	Alluvial soils are rich in	K
110.	Which of the following is not recommended for reclamation of saline soils?	Application of lime
111.	The plant part sample for analysing the nutrient status in groundnut is	Newest matured leaves
112.	Pick out the correct sequence with respect to salt tolerance (higher to lower)	Oats > Barley > Wheat
113.	This deficiency is more pronounced during cool, wet seasons and often disappear in warmer weather	Zinc
114.	In the presence of organic matter, the ater holding capacity of soils increase approximately by	20 times
115.	Glands used for defence (osmetria) by the insects are	Forked glands
116.	In the insects, the Johnston's organ is present in	Pedicel
117.	Skippers belong to the insect family of	Hesperiidae

118.	Excretion of terrestrial insects is	Uricotelism
119.	Lac dye contains _____ and is applied as manure to fields.	Nitrogen
120.	<b>Statement I:</b> Tasar silkworm and Muga silkworm are commercially employed in silk production. <b>Statement II:</b> Mulberry silkworm and Eri silkworm are of lesser importance	Both the statements are not correct.
121.	National Bureau of Agriculturally Important Insects is located at	Bengaluru
122.	Emulsifiers in pesticides	Promote suspension of liquid
123.	Setting up of light trap to monitor or attract adult moths and beetles is this method of control	Mechanical method
124.	Which of the following plant derived toxicant is considered as fish poison?	Rotenone
125.	Fungal garden developed by termites are	Termitomycetes
126.	Sex lure trap with methyl eugenol is set up to monitor the activity of	Fruitflies
127.	<i>Platygyaster oryzae</i> is the biocontrol agent of	Rice gall midge
128.	The exotic beetle <i>Zygogramma bicolorata</i> is introduced for the control of the weed	<i>Parthenium hysterophorus</i>
129.	Suitable egg parasitoid for rice stem borer is	<i>Trichogramma japonicum</i>
130.	Green leaf hopper, <i>Nephotettix nigropictus</i> is the vector of	Rice tungro
131.	Which of the following is storage pest?	Red flour beetle
132.	Larvae/adults that feed on broken grains are	Secondary pests

133.	Rosette flowers and discoloured cotton lint is the characteristic symptom of	Pink bollworm
134.	Earthing up in sugarcane is the management practice for control of	<i>Chilo infuscatellus</i>
135.	<i>Ariadne merione</i> is a specific pest on	Castor
136.	Popularly used fumigant for management of stored pests	Aluminium phosphide
137.	Mechanical method of clipping tip of the rice seedling prior to transplanting is followed to manage:	<i>Scirpophaga incertulus</i>
138.	Match (i) Rice tungro (ii) Redgram sterility mosaic (iii) Papaya mosaic (iv) Tomato spotted wilt	(a) Groundnut aphid ( <i>Aphis craccivora</i> ) (b) Green leaf hopper ( <i>Nephotettix virescens</i> ) (c) Thrips ( <i>Thrips tabaci</i> ) (d) Eriophyid mite ( <i>Aceria cajani</i> )  b, d, a, c
139.	Theory of innovation was given by	Schumpeter
140.	The most dangerous type of inflation in which the price rise is by 16 percent or more per annum is known as	Galloping
141.	Match i. Kinked demand curve ii. Price discrimination iii. Third degree price discrimination iv. Monopsony	a) Airways b) Electricity consumption in agriculture c) Sugar factory  d, a, b, c

		d) Oligopolistic market	
142.	In marginal curve approach, when marginal revenue is less than marginal cost the firm should decide on _____ the output.		Increasing
143.	Costs of self-owned and self-employed resources is		Implicit cost
144.	<b>Statement I:</b> There is more than one way of satisfying a want <b>Statement II:</b> Goods should be complementary in satisfying wants		Both statement I and statement II are true
145.	In case of bumper crop instead of bringing prosperity, ruining the economic position of farmers where the demand for the product is		Inelastic
146.	Longer the marketing channel, _____ will be the associated marketing cost.		Higher
147.	Trading technique of transferring the future price risk is known as		Hedging
148.	The committee that made specific recommendations for establishing licensed warehouses in India		Gadgil committee
149.	Middlemen who do not buy and sell directly but assist in marketing are known as _____ middlemen.		Facilitative
150.	The marketing institution that facilitates inter-state trade as		NAFED

	well as foreign trade of notified farm commodities is	
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