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Enrollment No.....



Faculty of Agriculture
End Sem (Odd) Examination Dec-2019
AG3CO21 Production Technology for Vegetables and
Spices
Programme: B.Sc. (Ag.) Branch/Specialisation: Agriculture

Maximum Marks: 50

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

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|-----|-------|---|------------------|
| Q.1 | i. | What is the requirement of tomato seed rate in open pollinated varieties? | 1 |
| | | (a) 1-2 kg/ha | (b) 100-120g/ha |
| | | (c) 400-500g/ha | (d) 600-700g/ha |
| | ii. | Puffiness is the disorder of which crop? | 1 |
| | | (a) Brinjal | (b) Chilli |
| | | (c) Tomato | (d) Potato |
| | iii. | Origin of pea is..... | 1 |
| | | (a) India | (b) Africa |
| | | (c) Central America | (d) Egypt |
| | iv. | Metaxinia is present in which crop? | 1 |
| | | (a) Cucumber | (b) Pea |
| | | (c) Dolichus bean | (d) Cluster bean |
| | v. | Pusa Mukta is a variety of which crop? | 1 |
| | | (a) Cauliflower | (b) Cabbage |
| | | (c) Brussels sprout | (d) Broccoli |
| | vi. | Pusa Ketki is a variety of which crop? | 1 |
| | | (a) Cauliflower | (b) Cabbage |
| | | (c) Brussels sprout | (d) Broccoli |
| | vii. | G-282 is a variety of which crop? | 1 |
| | | (a) Onion | (b) Potato |
| | | (c) Chilli | (d) Garlic |
| | viii. | Pusa Madhavi is a variety of which crop? | 1 |
| | | (a) Onion | (b) Garlic |
| | | (c) Radish | (d) Carrot |

P.T.O.

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- ix. CTCRI is situated in which state of India? **1**
 (a) Kassargod (b) Banguluru
 (c) Thiruvananthapuram (d) Delhi
- x. Black heart of potato is due to..... **1**
 (a) Oxygen deficiency (b) Poor ventilation
 (c) Both (a) and (b) (d) None of these
- Q.2 i. Which enzyme is responsible for red colour of chilli? **1**
 ii. What are the characteristics of vegetable? **2**
 iii. Write down the importance and scope of vegetable and spices in Indian economy. **5**
- OR iv. Write down the botanical names, family, origin and chromosome number of following crops. **5**
 (a) Tomato (b) Brinjal (c) Chilli (d) Cucumber
- Q.3 i. What is the flower colour of bottle gourd? **1**
 ii. Write down the cultivation of pumpkin on following points. **3**
 (a) Soil and climate (b) Seed rate and sowing time
 (c) Weed management
- iii. Write down the cultivation of sponge gourd on following points. **4**
 (a) Soil and climate
 (b) Planting distance and Manure and fertilizers
 (c) Varieties and Harvesting
- OR iv. Write down the cultivation of French bean on following points. **4**
 (a) Soil and climate (b) Irrigation and weed management
 (b) Manure and fertilizers (c) Varieties
- Q.4 i. What are the characteristics of crussiferae family? **2**
 ii. Write down the cultivation of cauliflower on following points. **6**
 (a) Soil and climate (b) Irrigation and weed management
 (b) Manure and fertilizers (c) Varieties
 (d) Harvesting and Yield
- OR iii. Write down the physiological disorder of cauliflower and describe them. **6**

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- Q.5 i. Describe in brief: **2**
 (a) Curing of onion (b) Mulching in beetroot
- ii. Describe in brief: **2**
 (a) Physiological disorder of radish
 (b) Storage of onion
- iii. Write down the cultivation of onion on following points. **4**
 (a) Botanical name and family
 (b) Soil and Climate
 (c) Varieties
 (d) Insect and Diseases
- OR iv. Write down the cultivation of carrot on following points. **4**
 (a) Botanical name and family
 (b) Soil and Climate
 (c) Varieties
 (d) Harvesting and Yield
- Q.6 Attempt any two:
- i. Write down the cultivation of potato on following points. **4**
 (a) Botanical name and family
 (b) Soil and Climate
 (c) Varieties
 (d) Harvesting and Yield
- ii. Write down the physiological disorder of potato and describe them. **4**
- iii. Write down the cultivation of amaranthus on following points. **4**
 (a) Soil and climate (b) Sowing time and Spacing
 (c) Weeding and irrigation (d) Harvesting and Yield

Marking Scheme

AG3CO21 Production Technology for Vegetables and Spices

Q.1	i.	What is the requirement of tomato seed rate in open pollinated varieties? (c) 400-500g/ha	1
	ii.	Puffiness is the disorder of which crop? (c) Tomato	1
	iii.	Origin of pea is..... (c) Central America	1
	iv.	Metaxinia is present in which crop? (a) Cucumber	1
	v.	Pusa Mukta is a variety of which crop? (b) Cabbage	1
	vi.	Pusa Ketki is a variety of which crop? (a) Cauliflower	1
	vii.	G-282 is a variety of which crop? (a) Onion	1
	viii.	Pusa Madhavi is a variety of which crop? (d) Carrot	1
	ix.	CTCRI is situated in which state of India? (c) Thiruvananthapuram	1
	x.	Black heart of potato is due to..... (c) Both (a) and (b)	1
Q.2	i.	Which enzyme is responsible for red colour of chilli (As per answer)	1 mark
	ii.	What are the characteristics of vegetable?	2
	iii.	Write down the importance and scope of vegetable and spices in Indian economy. 5 Points for veg 5 Points for Spice	5 2.5 marks 2.5 marks
OR	iv.	Write down the botanical names, family, origin and chromosome number of following crops. (a) Tomato (b) Brinjal (c) Chilli (d) Cucumber	5 1.25 marks 1.25 marks 1.25 marks 1.25 marks
Q.3	i.	Flower colour of bottle gourd	1 mark 1

	ii.	Write down the cultivation of pumpkin on following points.		3
		(a) Soil and climate	1 mark	
		(b) Seed rate and sowing time	1 mark	
		(c) Weed management	1 mark	
	iii.	Write down the cultivation of sponge gourd on following points.		4
		(As per explanation)	4 marks	
OR	iv.	Write down the cultivation of French bean on following points.		4
		(a) Soil and climate	1 mark	
		(b) Irrigation and weed management	1 mark	
		(c) Manure and fertilizers	1 mark	
		(d) Varieties	1 mark	
Q.4	i.	Minimum 4 characteristics of crussiferae family	(0.5 mark*4)	2
	ii.	Write down the cultivation of cauliflower on following points.		6
		(a) Soil and climate	1.2 marks	
		(b) Irrigation and weed management	1.2 marks	
		(c) Manure and fertilizers	1.2 marks	
		(d) Varieties	1.2 marks	
		(e) Harvesting and Yield	1.2 marks	
OR	iii.	Physiological disorder of cauliflower and describe them.		6
		(1.5 mark*4)		
Q.5	i.	Describe in brief:		2
		(a) Curing of onion	1 mark	
		(b) Mulching in beetroot	1 mark	
	ii.	Describe in brief:		2
		(a) Physiological disorder of radish	1 mark	
		(b) Storage of onion	1 mark	
	iii.	Write down the cultivation of onion on following points.		4
		(a) Botanical name and family	1 mark	
		(b) Soil and Climate	1 mark	
		(c) Varieties	1 mark	
		(d) Insect and Diseases	1 mark	
OR	iv.	Write down the cultivation of carrot on following points.		4
		(a) Botanical name and family	1 mark	
		(b) Soil and Climate	1 mark	
		(c) Varieties	1 mark	
		(d) Harvesting and Yield	1 mark	
Q.6		Attempt any two:		
	i.	Write down the cultivation of potato on following points.		4

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|------|--|------------|----------|
| | (a) Botanical name and family | 1 mark | |
| | (b) Soil and Climate | 1 mark | |
| | (c) Varieties | 1 mark | |
| | (d) Harvesting and Yield | 1 mark | |
| ii. | Write down the physiological disorder of potato and describe them. | (1 mark*4) | 4 |
| iii. | Write down the cultivation of amaranthus on following points. | | 4 |
| | (a) Soil and climate | 1 mark | |
| | (b) Sowing time and Spacing | 1 mark | |
| | (c) Weeding and irrigation | 1 mark | |
| | (d) Harvesting and Yield | 1 mark | |
