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SEMESTER END THEORY EXAMINATION
B. Sc. (Hons) Agri.

Semester	:	IV (New)		Academic Year	:	2020-2021
Course No.	:	AGO-246 (New)	Title	:	Crop Production Technology II	
Credits	:	2 (1+1)			(Rabi Crops)	
Day & Date	:	21.11.2021	Time	:	1 hr	Total Marks : 40

Note: 1. Solve **ANY FOUR** questions from **SECTION "A"**
2. Solve **ANY SIX** questions from **SECTION "B"**
3. All questions from **SECTION "C"** are compulsory
4. Send PDF file of answer sheet to respective teachers email id

MODEL ANSWER SET

SECTION "A"	
Write the answers in 4-5 sentences only. Each question carries 4 marks	
Q. 1	Write in detail about cultivation of Wheat crop on following points.
	<p>Soil and climate : Grown on soils ranging from sandy to clay with pH 6.0-8.5, Well drained sandy loam, loam and clay loam with neutral pH is more suitable. Heavy soils have drainage problem and crop is suffered. Require cool weather during vegetative growth and warm weather during maturity. Optimum temperature for germination 20-22°C can germinate even at 4°C. Cool weather favors tillering</p> <p>Irrigation management: Irrigation is given at 50% ASM for normal growth and yield. IW:CPE ratio ranges between 0.7 to 0.9. In all six irrigations required, One pre sowing and other at CRI, tillering, jointing, flowering and dough at an interval of 20-22 DAS. Under limited irrigation- One at 40-42 DAS, Two at 18-20 and 60-65 DAS and Three at 18-20 DAS, 40-42 DAS and 60-65 DAS.</p>
Q. 2	Furnish in detail the information of Rabi Sorghum on following points
	<p>Seed and sowing : Seed treatment- Carbofuron @ 100 g kg⁻¹ seed for the control of shoot fly, Brine solution treatment, Azotobacter/Azospirillum @ 25 g kg⁻¹ seed. Sowing time- 15 Sept. to 15 Oct. for rainfed and up to 30 Oct for irrigated condition. Seed rate- 8-10kg ha⁻¹ for varieties and hybrids Sowing depth- 3 to 4 cm, Spacing- 45 cm x 15 cm</p> <p>Manures and fertilizers: 10-12 tons ha⁻¹ manures, FYM or compost. Fertilizer dose- Medium soil- 40:20:20 for Rainfed & 80:20:50 for irrigated; Heavy soil- 60:30:0 for Rainfed and 100:50:50 for irrigated. For irrigated, split application of N should be followed.</p>
Q. 3	Give details about cultivation of Safflower on following points.
	<p>Land preparation: Requires firm sub soil and adequate moisture. In sequence cropping avoid ploughing, go for harrowing and sowing operation to conserve moisture. Weed infested field should be ploughed, harrowed and planking done for seed bed preparation.</p> <p>Weed management: Critical period of competition is first 45 days. Two hoeing at 20 and 40 DAS followed by weeding. Use of herbicides.</p>

Q. 4	Describe in detail the cultivation of seasonal sugarcane on following points.		
	<p>Selection of setts and its treatment: Cane should be from well matured 10-12 months age nursery Erect, free from red rot, wilt, smut. Top one third to half portion of cane is best. Use three budded setts. Treat the setts with Allagol (3%), Arefan (6%). Hot water treatment. Biofertilizer treatment</p> <p>Intercultural operations: Hoeing followed by weeding at an interval of 20-25 days during early growth. Herbicide application. Earthing up and tying.</p>		
Q. 5	Write short notes on (Any two).		
	<p>Curing of tobacco: Flue cured Virginia tobacco- yellowing, fixing of colour, leaf drying. Non- FCV tobacco- Air curing, Sun curing, Fire curing, Pit curing</p> <p>Ratooning in sugarcane: Meaning of ratooning, Advantages, Time of ratoon initiation, Agronomic practices.</p> <p>Topping and desuckering: Meaning, Importance, types of topping, Use of chemicals for desuckering.</p>		
	SECTION "B"		
	Write the answers in one sentence only. Each question carries 2 marks		
Q. 6	Fill in the blanks		
	1. Mustard contains about 37-49 % oil.		
	2. French bean contains about 22-23 % protein.		
	3. 60000 to 75000 sets are required for planting sugarcane over an area of 1ha.		
	4. 2,4-D is a post emergence herbicide used for control of weeds in Wheat		
	5. Sunflower is grown in all season due to photo-insensitivity		
	6. Flowering in sugarcane is also known arrowing		
	7. Seedling of Sorghum contains HCN acid		
	SECTION "C"		
Q. 7	Choose the correct option. Each question carries 1 mark		
	1.	Highest productivity of wheat is in state of	
	a.	West Bengal	c. Maharashtra
	b.	Punjab	d. Odisha
	2.	Macroni wheat is known as	
	a.	Triticum durum	c. Triticum dicocum
	b.	Triticum aestivum	d. None of these
	3.	Chickpea is also called as	
	a.	Maka	c. Bengal gram
	b.	Sarson	d. Alsi
	4.	Chickpea is rich in	
	a.	Sugar	c. Thiamin
	b.	Protein	d. Ceistein
	5.	The process to increase branching in chickpea is called as	
	a.	Nipping	c. Topping
	b.	Prunning	d. None of these
	6.	Which part of tobacco has economic importance	
	a.	Seed	c. Leaves
	b.	Stem	d. Flowers

7.	Lucern and Berseem belong to family			
	a.	Poaceae	c.	Solanaceae
	b.	Leguminaceae	d.	Fabaceae
8.	Major parasitic weed associated with Lucern and Berseem is			
	a.	Cuscuta	c.	Euphorbia spp.
	b.	Chenopodium	d.	Chandwel
9.	The chemical used for breaking dormancy in potato is			
	a.	Sulphur	c.	Malic hydrazide
	b.	Thiourea	d.	GA
10.	Tuberization is the growth stage of			
	a.	Sugarbeet	c.	Luucern
	b.	Sugarcane	d.	Tobacco
11.	For increasing Nitrogen fixing in legumes culture used is			
	a.	Rhizobium	c.	Tricoderma
	b.	Azotobacter	d.	PSB
12.	Critical stage for irrigation to Chickpea is			
	a.	Seedling	c.	Flowerig
	b.	Pod formation	d.	None of these