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M.Sc. Semester-II Examination, 2022

AGRICULTURE (AGRONOMY)

PAPER: AGR 201 (THEO)

(AGRONOMY OF OILSEED, FIBRE AND SUGAR CROPS)

Full Marks: 50

Time: 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any five questions from the following:**2X5 = 10**

- a. Write the botanical name of yellow sarson and brown sarson.
- b. Write any four differences between yellow and brown sarson.
- c. The pungency in mustard oil is due to which component?
- d. What are the percentage of oil and protein in groundnut?
- e. Write a brief note on pegging of groundnut.
- f. Write the name of two institutions associated with soybean cultivation.
- g. Mention the problems of sunflower cultivation in India.
- h. Write any *two* important variety of cotton.

**2. Answer any five questions from the following:****4X5 = 20**

- a. Write the difference between rapeseed and mustard.
- b. Draw the triangle of *Brassica* spp. with chromosome number.
- c. Classify soybean according to colour and shape of seed.
- d. Discuss the nutritional composition of soybean.
- e. Discuss the criss-cross, broad bed and furrow method in groundnut. 2+2
- f. Which fertilizer need to apply in the time of pod development of groundnut and why? Explain.
- g. Discuss about the retting of jute.
- h. Explain tying, wrapping and propping of sugarcane.
- i. Discuss briefly the sowing parameters and water management of cotton.

3. Answer any two questions from the following:**10X2 = 20**

- a. Write down the constraints of oil-seed production in India. Mention the strategies to boost oil seed production in India? 8+2
- b. Discuss the botany of soybean. Explain growing season, seed rate and spacing in soybean cultivation. 5+2+2+1
- c. Discuss water management in groundnut. Explain briefly the effect of *Afla-toxin* during storage of groundnut and their management. 3+7
- d. Why commercial cultivation of cane is higher in North-India than South-India? Explain. Discuss intercropping in autumn canes along with their advantage and disadvantage. 5+5
- e. What do you mean by *ratoon* canes? What are the advantages and disadvantages of *ratoon* canes? Discuss any four quality judgement character of cotton fibre. 2+4+4