

KATHMANDU UNIVERSITY  
End Semester Examination [C]  
December, 2024

Marks Scored:

Level : B.Sc.

Year : II

Course : AGRS 206

Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date : 12 Dec.

SECTION "A"  
[20 Q × 1 = 20 marks]

**Choose and encircle the most appropriate option from each set of choices.**

- The most important grain legume crop in Nepal is .....  
a. Soybean  
b. Lentil  
c. Pigeon pea  
d. Black gram
- Select the correct scientific name of Rice bean from the following:  
a. *Vigna mungo*  
b. *Vigna radiata*  
c. *Vigna unguiculata*  
d. *Vigna umbellata*
- The most important component of oil seeds crop is:  
a. Protein  
b. Tryacylglycerols  
c. Carbohydrate  
d. Minerals
- Which is the most critical stage for irrigation in Lentil?  
a. Flowering  
b. Pod formation  
c. Branching  
d. Seed development
- Planting time is critical for rapeseed to reduce pest attack in the field. What is most suitable planting time in Terai and inner Terai for Rapeseed production?  
a. Kartik-Mangsir  
b. Asoj-Kartik  
c. Falgun-Chaitra  
d. Last week of Baisakh
- Chickpea has all the essential amino acids except:  
a. Lysine  
b. Tryptophan  
c. Methionine  
d. Glycine
- Cuscuta indecora* is a vine rootless parasitic weed while a root parasite found in sunflower crop field is:  
a. *Orobanche cumara*  
b. *Amaranthus viridis*  
c. *Chenopodium album*  
d. *Conyza Canadensis*

8. The distinguishing character of black gram and green gram is:
  - a. One is herb and other shrub
  - b. Simple and compound leaves
  - c. Green gram pods are pendulous
  - d. Black gram pods are pendulous
  
9. Among the different types of sesamum seeds, which one is more preferred for oil extraction
  - a. Brown seeds
  - b. White seeds
  - c. Black seeds
  - d. Red seeds
  
10. What is the safe kernel moisture percentage for storage of ground nut?
  - a. 8%
  - b. 10%
  - c. 12%
  - d. 14%

**Fill in the blanks.**

11. A specialized organ in ground nut with the help of which fertilized ovary is embedded into the ground is called \_\_\_\_\_.
  
12. A flower in which ovary is superior to the other three whorls i.e calyx, corolla and androecium is called \_\_\_\_\_.
  
13. In sunflower \_\_\_\_\_ florets mature in seeds (achenes) while the ray florets are sterile.
  
14. \_\_\_\_\_ is the name of green gram variety released in Nepal.
  
15. According to photo-period requirement, sesamum is \_\_\_\_\_ crop.
  
16. Canola oil has <2% \_\_\_\_\_ therefore considered healthy oil.
  
17. The castor oil contains an alkaloid called “\_\_\_\_\_” which is poison and act as blood coagulant.
  
18. The suitable time of cultivating Lentil under irrigated condition is \_\_\_\_\_.
  
19. The Rhizobium species suitable for Soybean is \_\_\_\_\_.
  
20. Rapeseed and mustard differ in their leaves. The leaves of rapeseed is \_\_\_\_\_.

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End Semester Examination [C]

December, 2024

12 Dec.

Level : B.Sc.  
Year : II  
Time : 2 hrs. 30 mins.

Course : AGRS 206  
Semester : I  
F.M. : 55

SECTION "B"

[5Q × 5 = 25 marks]

Attempt *ANY FIVE* questions.

1. Explain why chickpea is important grain legume crop. Write about its growth stages, suitable climate and soil condition. What are the major constraints of chickpea production in Nepal? [1.5+2+1.5]
2. How would you cultivate blackgram with improved practices? Describe your answer to guide grower on land preparation, seed sowing technique, planting season, fertilizer, irrigation, weed management and harvesting skills. [5]
3. Introduce pigeon pea with its taxonomical description. What are the importances of pigeon pea as human food, animal feed and as a climate friendly crop? Enlist various growth stages of pigeon pea. [1.5+1+2.5]
4. What type of climate and soil are suitable for growing sesamum? What is optimum seed rate, sowing method, sowing time, fertilizer application, crop growing period and harvesting technique of sesamum? [1.5+3.5]
5. What is an aflatoxin? Explain how proper knowledge on post-harvest handling can minimize the losses and aflatoxin problem in groundnut. [1+4]
6. Why are grain legumes important crop? Explain how grain legumes can play vital role in promoting sustainable agriculture. [2+3]

SECTION "C"

[3Q × 10 = 30 marks]

Attempt *ANY THREE* questions.

7. What are oil seed crops? Describe about their importance in human and animal nutrition. Enlist major oilseed crop species grown in Nepal. Describe about the major agronomic practices to grow Sesamum. [1+2.5+1+5.5]
8. Give a detailed cultivation practice of growing Lentil crop. Give your opinion on how lentil is major grain legume of Nepal. What are the strength and opportunities of growing Lentil in Nepal? [6.5+1.5+2]
9. Rapeseed and mustard are major oil seed crop in Nepal. Introduce these crops with their taxonomical description, morphology, phenology, suitable climate and soil required for these crops. Mention at least three varieties of Rapeseed and Mustard released in Nepal. [8+2]
10. Explain why sunflower is important oil seed crop. Give different growth stages of sunflower and detailed agronomic practices of growing sunflower. Mention major constraints of oil seed crop in Nepal. [1.5+5.5+3]

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