

# ARUNACHAL PRADESH PUBLIC SERVICE COMMISSION

Subject: - AGRICULTURE SCIENCE - PAPER -II

Time: 3 (three) hours

Full Marks: 100

NOTE: ANSWER ANY 5 (FIVE) QUESTIONS

- Q. 1. a) Illustrate the symptoms, etiology, perpetuation, disease resistance and chemical management of rust of wheat. (10)  
b) Write the most distinguishing symptoms along with the causal organism of the following diseases: (2x5=10)  
i) Late blight of potato  
ii) White rust of crucifers  
iii) Citrus greening  
iv) Fire blight of Apple  
v) Bacterial leaf blight of rice
- Q. 2. Write a brief note on the following: (4 x5 = 20)  
a) What is virus? Describe its morphology and nucleic acid composition.  
b) Five important characteristics of Bacteria.  
c) Antibiotic vs. Phytoalexin  
d) DAS-ELISA.  
e) Horizontal resistance vs. vertical resistance
- Q. 3. Describe the nature of damage and management practices of the following insect-pests (4x5 = 20)  
a) Yellow stem borer  
b) Banana pseudostem weevil  
c) Potato tuber moth  
d) Pulse bruchid (Gram dhura)  
e) Brinjal fruit and shoot borer
- Q. 4. a) Describe the symptoms of nematode diseases of rice and pine apple (5+5=10)  
b) Discuss in detail nematode management practices. (10)
- Q. 5. Define agricultural economics. What are the different divisions of agricultural economics? State the subject of agricultural economics. (10+10=20)
- Q. 6. Enumerate the principles involved in farm management decisions. How can agricultural marketing cooperatives help in better farm management? (20)
- Q. 7. Analyse the steps of extension educational process. Show how the extension teaching methods are classified into different categories? Describe two extension teaching methods from each category along with the area of their application. (7+3+10=20)
- Q. 8. a) To increase agricultural production through mechanization, suggest your recommendations in view of latest developments in farm implements and machineries. (6)  
b) What is post harvest technology? What is primary and secondary processing? Explain in brief about various food preservation techniques? (8)  
c) What is the sequence of water erosion? Under what condition drop spill ways are constructed? What are the purposes of bunds? (6)