

**H.P.BOARD OF DEPARTMENTAL EXAMINATION
DEPARTMENTAL EXAMINATION OF OTHER GAZETTED OFFICERS/
OFFICIALS (NON- TECHNICAL) OF HIMACHAL PRADESH SESSION MAY-
JUNE, 2009.**

PAPER-4 (FOOD CIVIL SUPPLIES & CONSUMER AFFIARS DEPTT.)

Time Allowed:3 Hours.

Maximum Marks: 100

Note:- 1. Attempt any five questions.

2. All questions carry equal marks.

Q.No.1 What are the various factors, which play a crucial role in the upkeep and Storage life of the agricultural produce? Explain in details. **(20 marks)**

Q.No.II (i) Write the scientific name. order and family of Khapra. **(6 marks)**
(ii) What are the identification characteristics, type of damage, habits and life History of Red rust flour beetle? **(14 marks)**

Q.No.III Fill in the blanks:-

- (i) The development of insects retards below----- C and above-----C
- (ii) the insects respire at the rate of----- to-----time more then that of The same weight of grains.
- (iii) The grains under very dump conditions accelerate rate of the mould growth With the result the heat is produced which rises the temperature from ----- .C to----- .C and moisture contents from-----% to-----%
- (iv) Critical moisture content for safe storage of wheat is----- % and that for rice Is----- % at ----- % relative humidity and-----:C.
- (v) the grains losses starch and sugar----- % or above moisture level.

(20 marks)

Q.No.IV Write short notes on the following:-

- (i) Toxic Weed Seeds.
- (ii) Toxic varieties of edible food grains.

(2 x 10= 20 marks)

Q.No.V (i) What is the difference between dose and dosage? **(5 marks)**
(ii) What are the characteristics of an ideal fumigant? **(5 marks)**
(iii) Write mode of action of Malathion. **(10 marks)**

Q.No.VI Write short note on:-

- (i) Storage fungi. **(7 marks)**
- (ii) Chemical methods for rodent control. **(7 marks)**
- (iii) Bird pest management **(6 marks)**

Q.No.VII Define the following:-

- (i) Usual examination of sample
- (ii) Deep bin probe.
- (iii) Bag trier
- (iv) Primary sample

(5 x 4 = 20 marks)

Q.No.VIII What do you mean by the following terminology:-

- (i) Dal
- (ii) Organic foreign matter
- (iii) Shriveled grains
- (iv) Refractoions
- (v) Ergoty grains
- (vi) Degree of milling
- (vii) Discoloured grains
- (viii) Chalky grains
- (ix) Millets
- (x) Small brokens

(2x 10= 20 marks)

Q.No.IX Write short note:-

- (i) Quality control at the time of storage of food grains. **(10 marks)**
- (ii) Analysis procedure of rice. **(10 marks)**

Q.No.X Write short note on:-

- (i) Bureau of Indian Standard & its role in maintenance of quality control of food Grains. **(10 marks)**
- (ii) Explain Biochemical and nutritional changes in food grains during storage. **(10 marks)**
