Code No: **RT41355**   **R13**   Set No. 1

IV B.Tech. I Semester Supplementary Examinations, February - 2019
SEED PROCESING AND STORAGE ENGINEERING
(Agriculture Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART- A(22Marks)

1	a)	Differentiate between graphical and half life period methods.	[3]
	b)	Advantages and disadvantages of artificial drying.	[3]
	c)	Give a brief account on air movement inside the storage house.	[4]
	d)	List out the nutritive changes occur in seeds during storage.	[4]
	e)	Briefly describe about Bukhari type of storage structure.	[4]
	f)	Explain Hermitically added storage.	[4]

PART –B(3 X 16=48Marks)

2	a)	List out the common uses of psychometric chart during drying problem analysis.	[8]
	b)	Explain Henderson equation for EMC Determination. Calculate the EMC of paddy seed at a relative humidity of 10% and at a temperature of 50 ^{0}C. The constants required, C=6.5 X 10^{-6} and n=1.8.	[8]
3	a)	Describe briefly the construction and operation of recirculatory batch dryer RPEC type.	[8]
	b)	List out and explain five major air distribution systems.	[8]
4	a)	Explain the need for controlling temperature and RH inside a store house.	[8]
	b)	Define refrigeration load and explain how temperature and relative humidity are controlled inside a store house.	[8]
5	a)	Define and explain direct and indirect damages caused by insect pest.	[8]
	b)	List out various sources of insect infestation.	[8]
6	a)	Explain the construction of vertical solos with diagram.	[8]
	b)	Give a brief account on traditional bulk storage structures.	[8]
7	a)	List out different types of bucket elevator and explain any one in detail.	[8]
	b)	Explain how grains are stored under modified atmospheric conditions.	[8]

1 of 1