B. Tech.
(SEM. IV) EXAMINATION, 2006-07
SOURCES, CHARACTERISTICS & COMPOSITION
OF OIL, FAT & WAXES

Time : 3 Hours] [Total Marks : 100

Note : Attempt all questions. All questions carry equal marks.

1. Attempt any four of the following : 4×5=20
   (a) Give the names of traditional oils used in India. Also give their statewise production in India.
   (b) Give the name of Tree borne oilseeds. Also give industrial uses of any four Tree borne oilseeds.
   (c) What are different factors responsible for the deterioration of oilseeds and oils?
   (d) Discuss the various constraints in commercial exploitation of minor oilseeds.
   (e) What are the different natural sources of oils and fats? Also discuss in what aspects they are different from each other.
   (f) Give the estimated potential and actual collection of various Tree origin oilseed of India.
2 Attempt any two of the following.  
(a) Discuss various conditions for safe storage of oilseeds? Also discuss the impact of the storage conditions on the quality of extracted oil. 

(b) Give physico-chemical characteristics and fatty acid composition of Sal oil, Mahua oil and Rapeseed Oil.  

(c) Give the composition of Neem oil. Also give a brief account of its industrial uses along with its method of production.  

3 Attempt any two of the following:  
(a) Give the fatty acid composition and method of production of Palmkernel oil. Also give its industrial uses.  

(b) Give the physico-chemical characteristics, method of production and industrial uses of Ricebran oil.  

(c) Give the fatty acid composition physico-chemical characteristics and method of production of Sunflower oil.  

4 Give fatty acid composition, physico-chemical characteristics, industrial uses and method of production of any two of the following:  
(i) Tallow  
(ii) Butter Fat  
(iii) Fish Liver Oil.  

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5 Attempt any two of the following: $2 \times 10 = 20$

(a) Give the physio-chemical characteristics fatty acid composition and industrial application of Shellac Wax.

(b) What are the differences between natural and synthetic wax? Also give examples of synthetic and natural wax.

(c) Give the physio-chemical characteristics and industrial applications of sugarcane wax and paraffin wax.