B. Tech.

(SEM. IV) EXAMINATION, 2006-07

SKIN PROTEINS & PRETANNAGES

Time : 3 Hours] [Total Marks : 100

Note : (i) Attempt all questions.
      (ii) Be precise in your answer.

1 Attempt any four parts of the following:
   (a) Justify the presence of amino and carboxyl groups present in Proteins.
   (b) Discuss the three dimensional structure of collagen fibres.
   (c) Define non-fibrous proteins.
   (d) Give the structural formula of glutamic acid, aspartic acid, arginine and histidine.
   (e) Discuss the reason of conversion of collagen into glue.
   (f) Give an explanatory note on Amide link in collagen.

2 Attempt any four parts of the following:
   (a) Why curing is required?
   (b) What are the disadvantages of freezing method for curing?

V-9248] 1 [Contd...
(c) Differentiate between glycerides and non-glycerides.
(d) How is dry salting carried out?
(e) What are the advantages of Brine curing?
(f) Why Flints are difficult to soak back?

3 Attempt any two parts of the following:
(a) Discuss the objects of soaking. What is the purpose of using wetting agents?
(b) Classify wetting agent molecules on the basis of ionic nature. Which type is most commonly used and why?
(c) Why liming is carried out? Discuss immunization of Keratin.

4 Attempt any two parts of the following:
(a) With monoacidic and diacidic base given which one should be used and why?
(b) What are the objects of deliming? What will happen if you skip this operation?
(c) Write short notes on the following:
   (i) Drenching
   (ii) Bating.

5 Attempt any two of the following:
(a) Discuss the necessity of pickling. What is the effect of masking on the quality of leather?
(b) Write short notes on the following:
   (i) Depickling
   (ii) Degreasing by Aqueous emulsification method.
(c) How does the presence of grease degrade the quality of leather? Give any one method for degreasing.