

Uva Wellassa University

Faculty of Animal Science & Export Agriculture

B.Sc. in Tea Technology and Value Addition

B.Sc. in Export Agriculture



End Semester Examination August/September 2011

Year III Semester II

Phytochemistry & Extraction Technology (EAG 346-2) & Repeat

Instructions

Answer Two (02) questions only

No. of questions : 03

No. of pages : Three (03)

Time : 1 hour

Total marks allocated : 40%

Index No:

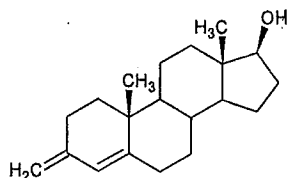
Part III - Essay

(01) (i) What do you understand by the term "mixed biogenesis" [03 marks]

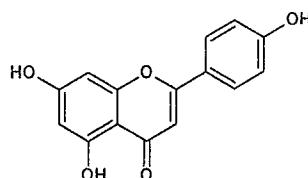
(ii) Name the biosynthetic pathway/pathways of following molecules.

[Do not describe pathways]

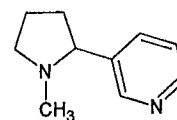
[03 marks]



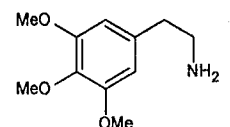
A



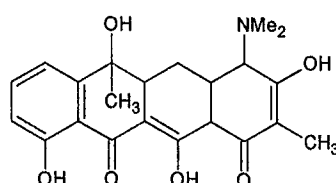
B



C



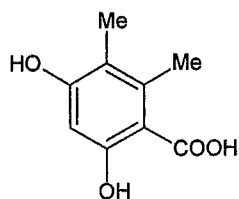
D



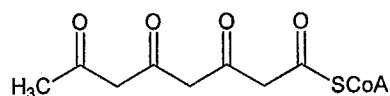
E

1

- (iii) Outline the steps involved (showing mechanisms) in the biosynthesis of
 (a) 5-methylorsellinic acid from **E**



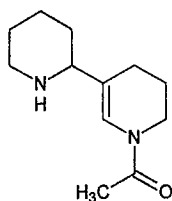
5-methylorsellinic acid



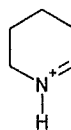
E

[08 marks]

- (b) Amodendrine from **F**



Amodendrine



F

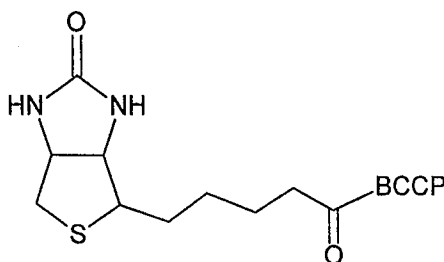
[06 marks]

- (02) (i) Compare and contrast followings

- (A) lignans and lignins
- (B) anabolism and catabolism
- (C) primary metabolites and secondary metabolites

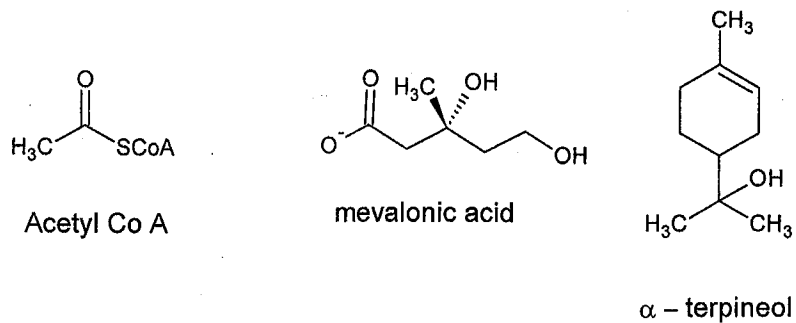
[10 marks]

- (ii) Showing relevant reaction mechanisms explain the role of the Biotin and associated Biotin Carboxyl Carrier Protein (BCCP) in fatty acids biosynthesis



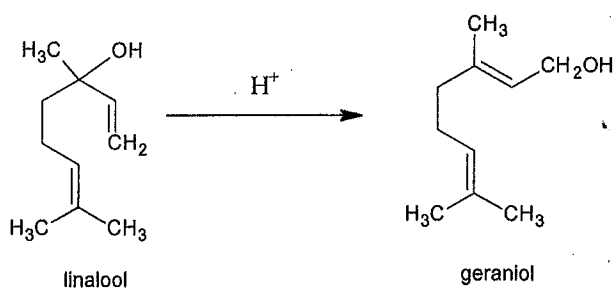
[10 marks]

- (03) (i) Showing all the reaction mechanisms outline the steps involve in the biosynthesis of Mevalonic acid and α - terpineol from Acetyl Co A



[14 marks]

- (ii) Show the mechanism of following reaction



[06 marks]

