

This question paper contains 5 printed pages]

AI—101—2017

FACULTY OF SCIENCE

M.Sc. (Third Semester) EXAMINATION

MARCH/APRIL, 2017

(CBCS Pattern)

CHEMISTRY

Paper CH-532/2

(Natural Products)

(Saturday, 22-4-2017)

Time : 2.00 p.m. to 5.00 p.m.

Time—3 Hours

Maximum Marks—75

N.B. :— (i) Attempt All questions.

(ii) Figures to the right indicate full marks.

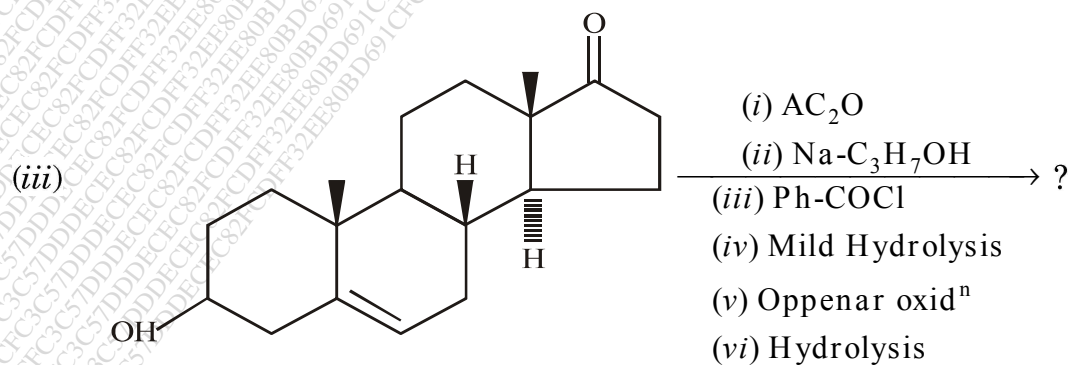
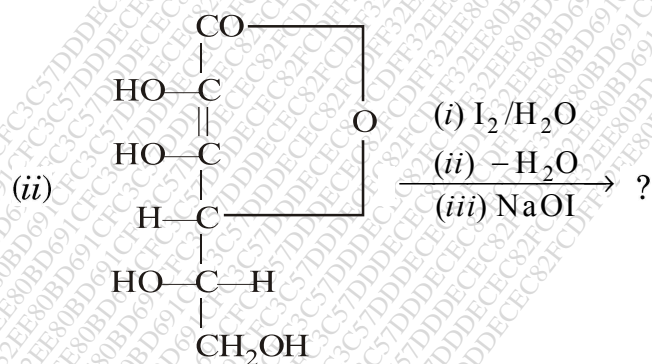
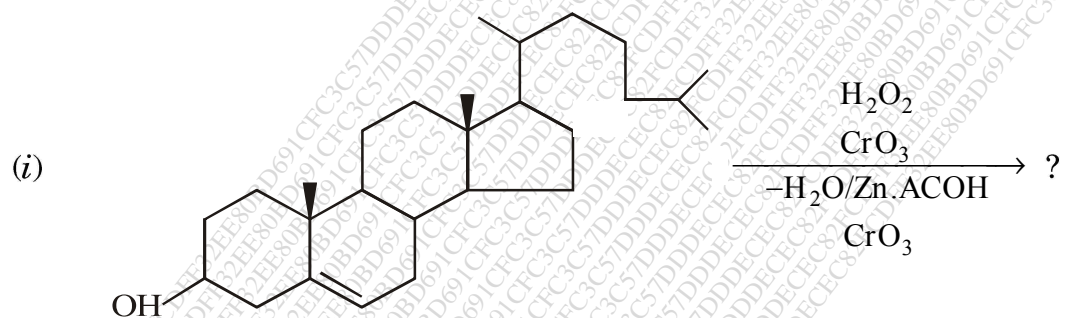
1. Solve any *three* : 15
 - (a) Discuss the structure of Camphor.
 - (b) Presence of lactone ring and size of lactone ring in ascorbic acid.
 - (c) Give the synthesis of Camphoric acid.
 - (d) Explain general method for the structure determination of anthrocyanidin.
 - (e) Write a note on rotenone.
2. Answer the following (any *three*) : 15
 - (a) Give the synthesis of 3'-methyl-1, 2-cyclopentanophenanthrene.
 - (b) Give the synthesis of Quercetin by Robinson method.
 - (c) Discuss the synthesis of Cyanidin chloride.
 - (d) Discuss the constitution of progesterone with its synthesis.
 - (e) Discuss the structure of methyl morphol.
3. (A) What are Vitamins ? Discuss the structure determination of Retinol. 7

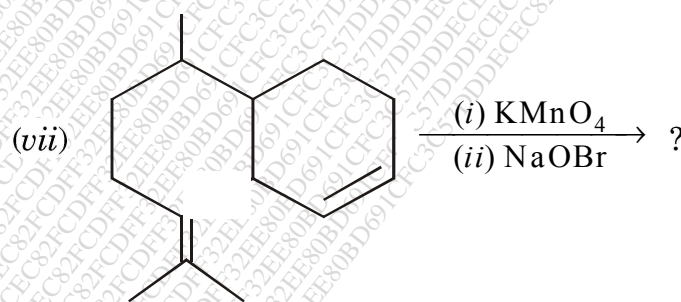
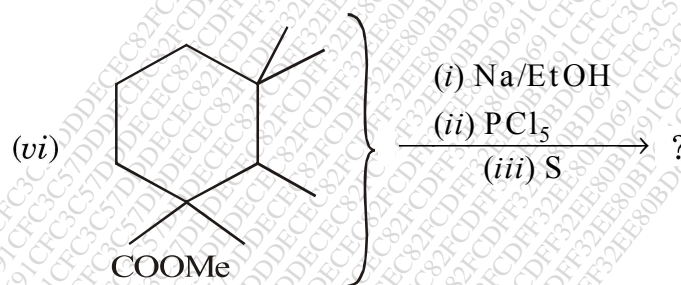
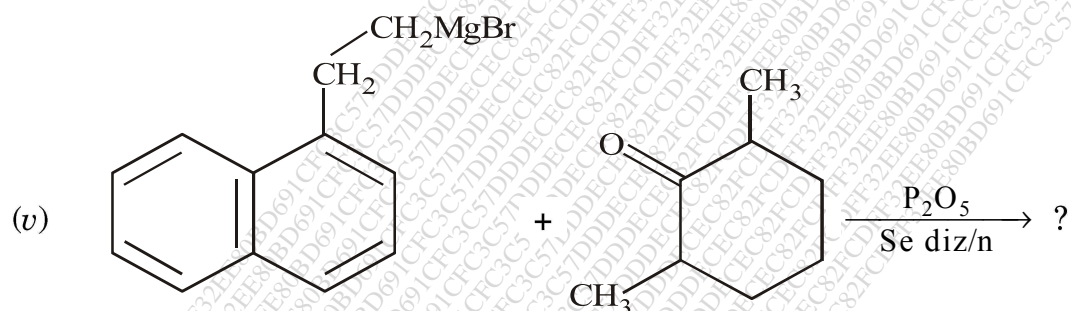
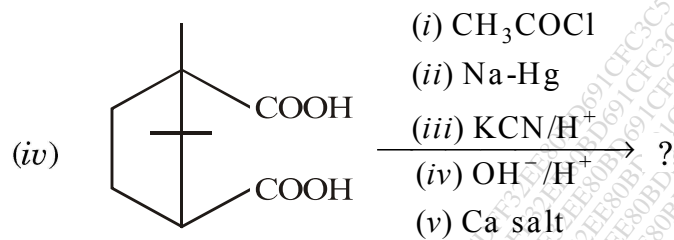
P.T.O.

Or

What are pyrethroids ? How are they classified ? Explain with their biological activity.

(B) Predict the products (any four) : 8





4. (A) Discuss the structure of ring system in cholesterol.

7

Or

Give the synthesis of Bombykol.

P.T.O.

- (B) How will you convert : 8
- (a) Cholesterol to Progesterone
 - (b) Cholesterol to Androsterone.

Or

Natural Pyrethroids.

5. (A) Select *correct* alternative from the following : 5

- (i) Farnesol is terpenoid.
 - (a) di
 - (b) mono
 - (c) sester
 - (d) sesqui
- (ii) M.F. of cholestane is
 - (a) $C_{27}H_{48}$
 - (b) $C_{27}H_{46}$
 - (c) $C_{27}H_{52}$
 - (d) $C_{27}H_{42}$
- (iii) Quinine contains alcoholic group.
 - (a) Primary
 - (b) Secondary
 - (c) Tertiary
 - (d) All of the above
- (iv) 2-phenyl benzopyrillium chloride is also called as :
 - (a) Flavylium chloride
 - (b) Cyanidin chloride
 - (c) Benzyl chloride
 - (d) None of the above

- (v) disease is caused due to deficiency of retinol.
- (a) Night blindness
 - (b) Pellagra
 - (c) Scurvy
 - (d) None of the above
- (B) Write short notes on (any *two*) : 10
- (a) Pheromones
 - (b) Isoprene rule
 - (c) Quininic acid.