

This question paper contains 4 printed pages]

**BR—125—2016**

**FACULTY OF SCIENCE**

**M.Sc. (Second Year) (Third Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2016**

**(CBCS Course)**

**CHEMISTRY**

Paper CH-532/2

(Natural Product)

**(Friday, 18-11-2016)**

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

*Time—Three Hours*

*Maximum Marks—50*

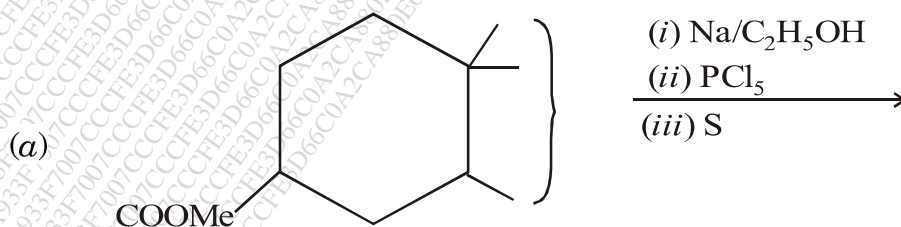
*N.B. :— (i) Attempt All questions.*

*(ii) Figures to the right indicate full marks.*

1. Offer explanation for the following (any *five*) : 10

- (a) Vitamin-C contains *r*-lactone ring.
- (b) Camphoric acid is  $\alpha, \alpha, \beta$ -trimethyl-tricarballic acid.
- (c) Conversion of vitamin A<sub>1</sub> to vitamin A<sub>2</sub>.
- (d) Angular methyl group in abietic acid.
- (e) Presence of cyclic tertiary base in morphine.
- (f) Presence and position of  $\alpha, \beta$ -unsaturated ketone in progesterone.
- (g) Presence of angular methyl group of 'C-10' in cholesterol.
- (h) Androsterone is tetracyclic.

2. Predict the product (any *four*) : 10

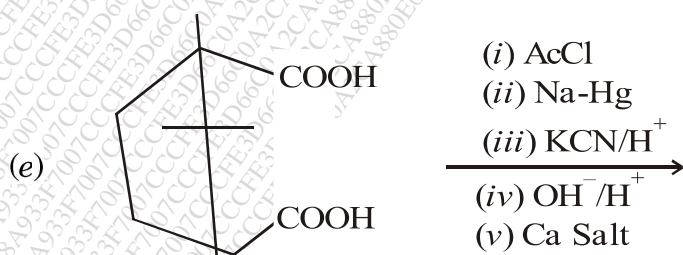
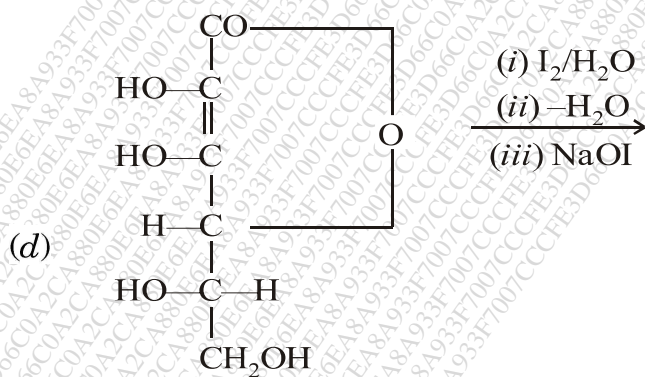
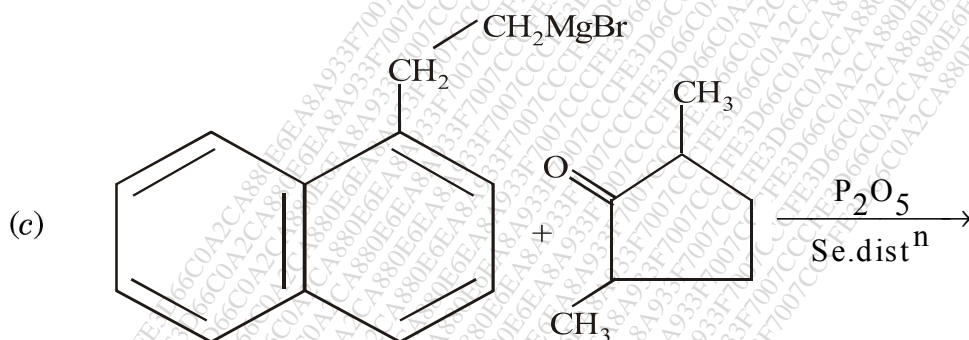
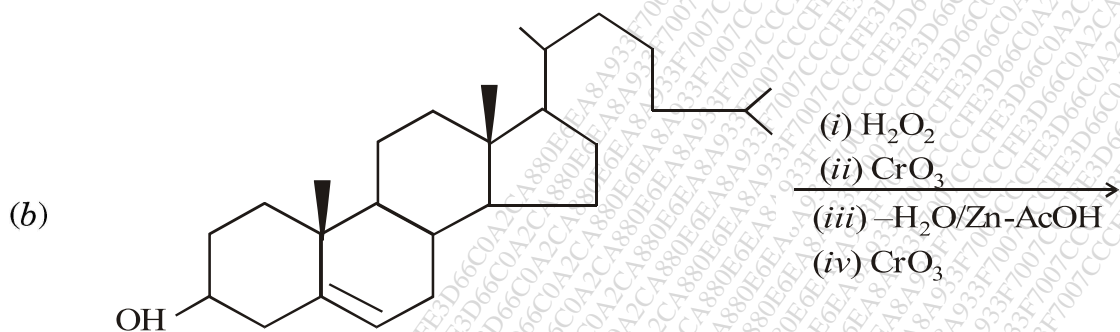


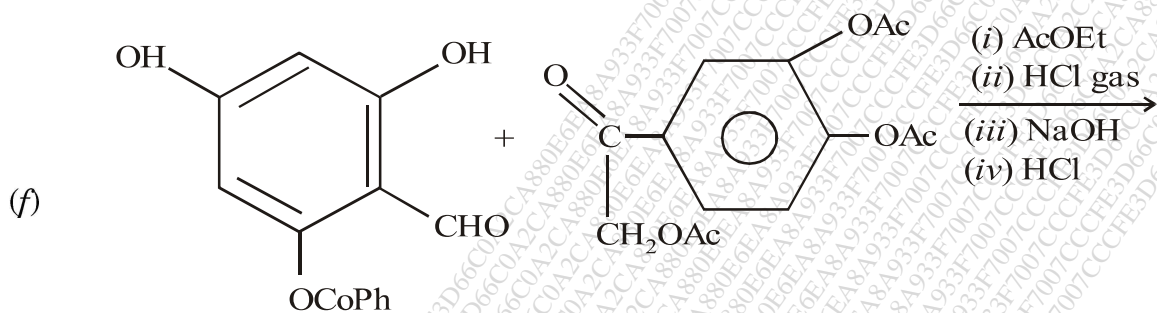
P.T.O.

WT

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BR-125-2016





3. Answer the following (any *two*) : 10
- Explain the nature and side chain in cholesterol.
  - Discuss the structure of methyl morphol.
  - Discuss the biosynthesis of PGE<sub>2</sub>.
4. Answer the following (any *two*) : 10
- Explain general methods of structure determination of anthocyanidin.
  - Offer constitution of  $\alpha$ -tocopherol.
  - Offer constitution of farnisol.
5. (A) Select the correct alternative from the following : 5
- ..... is caused due to deficiency of vitamin C.
 

(a) Nightblindness	(b) Pellagra
(c) Scurvy	(d) Xerophthalmia
  - Cholesterol is ..... sterol.
 

(a) Phyto	(b) Zoo
(c) Amphi	(d) Myco
  - 2-phenyl benzopyrylium chloride is also called as .....
 

(a) Falvylum chloride	(b) Cyanidin chloride
(c) Benzyl chloride	(d) None of these

P.T.O.

- (iv) Cyanidin chloride on hydrolysis with HCl gives .....
- (a) Glucose (b) Fructose
- (c) Ribose (d) Maltose
- (v) ..... is sex hormone.
- (a) Bombycol (b) 2-heptanone
- (c) Undecane (d) All of these

(B) Write short notes on any *two* :

5

- (a) Synthesis of Bombycol
- (b) Synthesis of Quercetin
- (c) Synthesis of Quinic acid.