



MBU-003-010304 Seat No. \_\_\_\_\_

M. Sc. (Chemistry) (Sem. III) (CBCS) Examination

December - 2016

C(OP) - 302 : Organo Pharmaceutical Chemistry

(Disconnection Approach) (New Course)

Faculty Code : 003

Subject Code : 010304

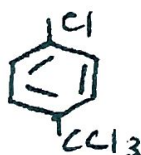
Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

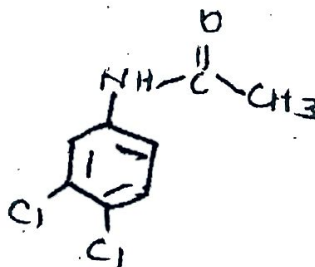
- Instrucitons : (1) All questions carry equal marks.  
(2) Attempt all questions.

✓1 Attempt any seven :

- ✓(1) Define the term Umpolung.
- ✓(2) Explain T.M.
- ✓(3) Define FGI considering a suitable example.
- ✓(4) Explain disconnection of saccharin.
- ✓(5) Explain disconnection of piperonal.
- (6) Explain the term "Order of Events"
- ✓(7) Give synthesis and reterosynthetic analysis of



- ✓(8) Explain disconnection of

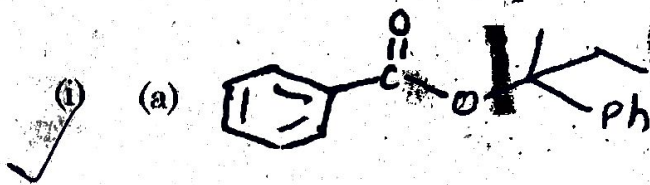


and write

synthesis accordingly.

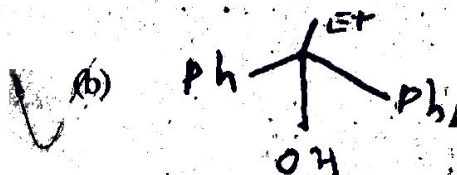
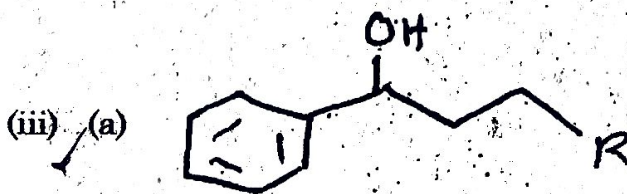
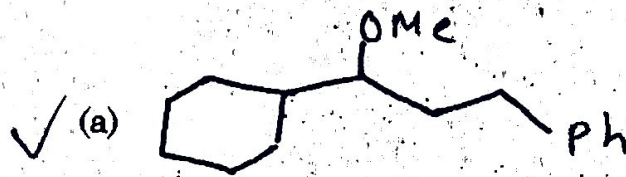
- (9) Define one group disconnection with a suitable example.
- (10) Define two group disconnection with a suitable example.

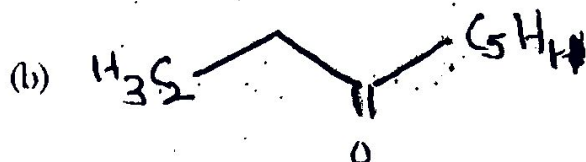
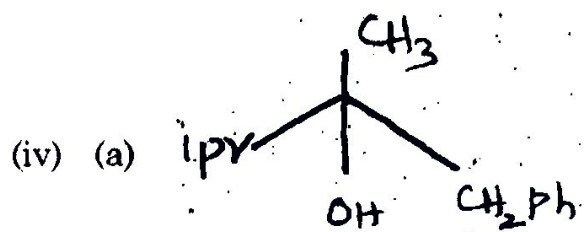
2 Answer the following : (any three)



(Write RSA and Synthesis)

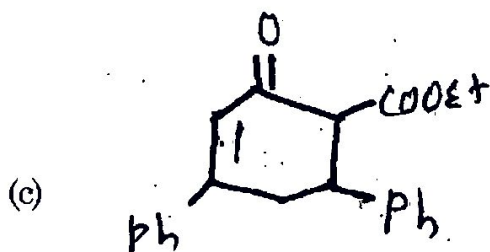
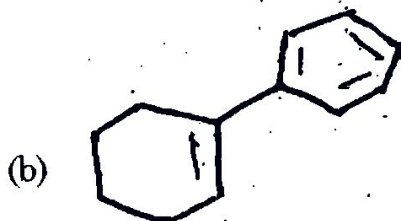
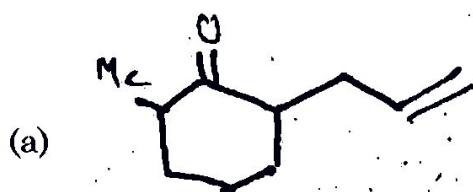
(ii) Disconnect the following and write synthesis

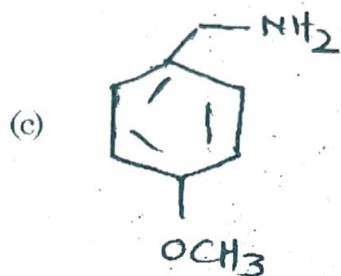
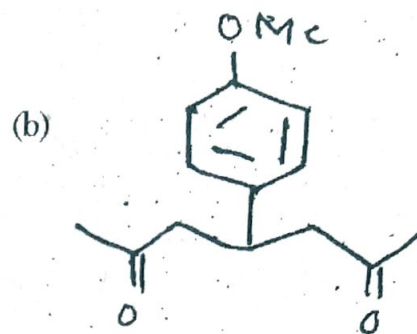
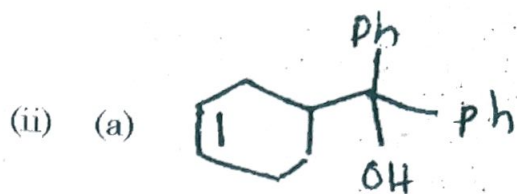




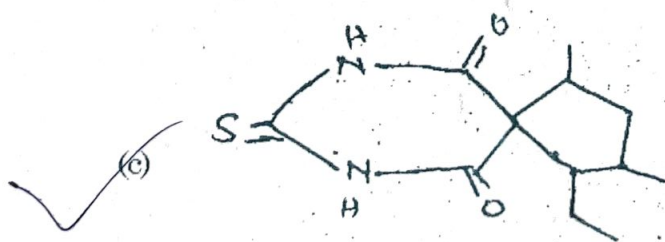
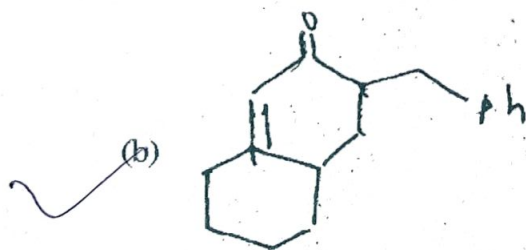
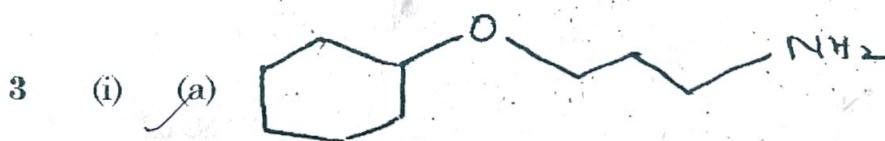
3 Answer the following :

(i) Write RSA and give synthesis of following.

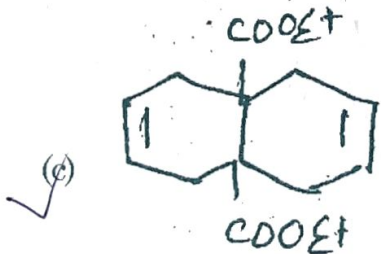
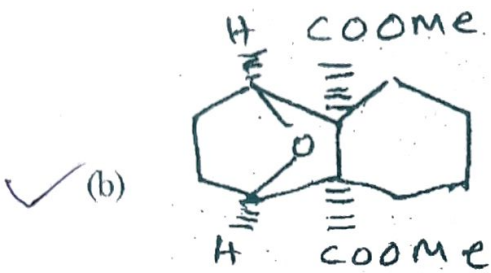
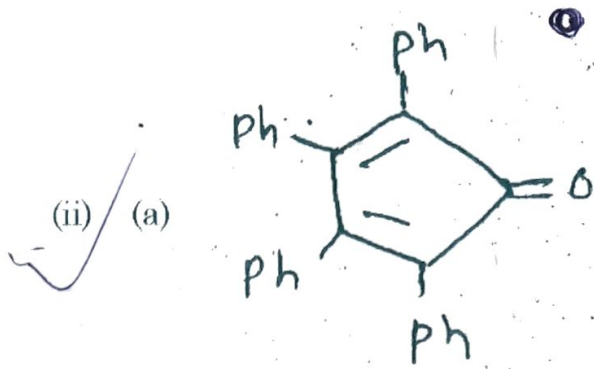




OR

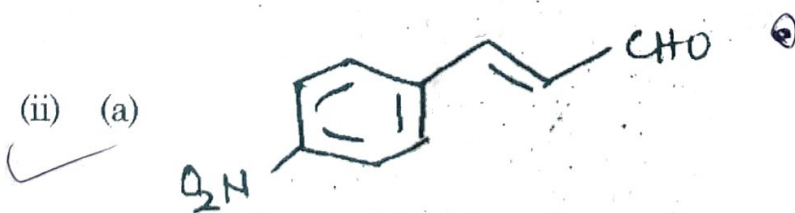


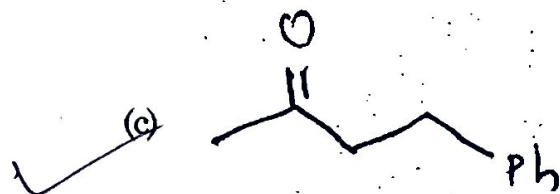
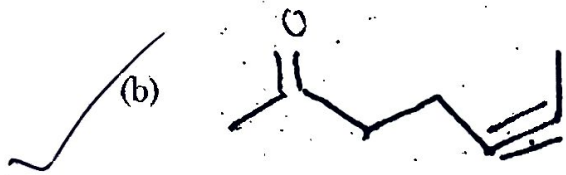




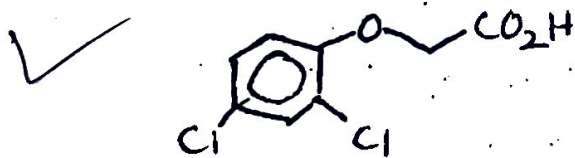
4 Answer the following : (any two)

(i) Write a short note on reversal of polarity. \*



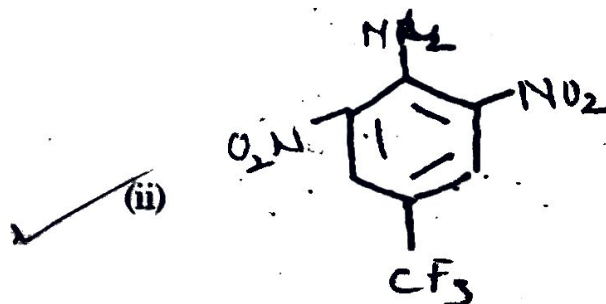


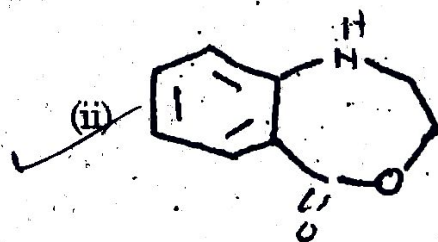
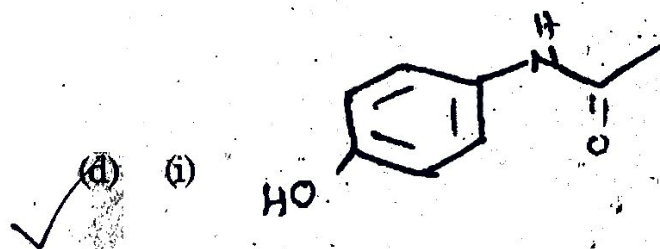
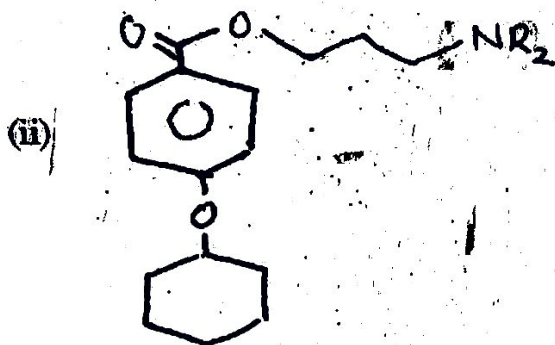
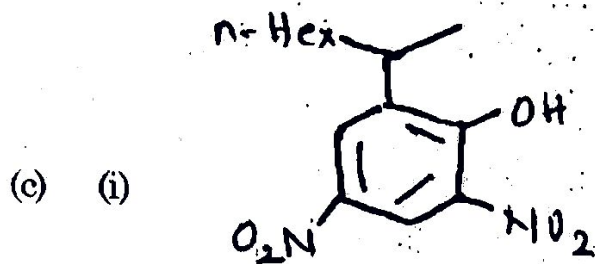
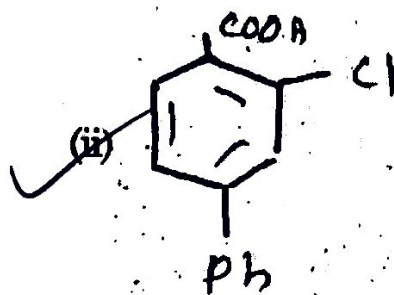
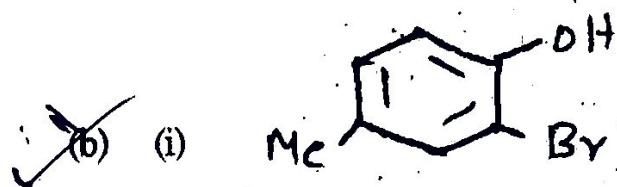
(iii) Explain disconnection of Ibuprofen and



write its synthesis.

5 Answer the following : (any three)







BBH-003-010304

Seat No. \_\_\_\_\_

M. Sc. (Chemistry) (Sem. III) (CBCS) Examination

December - 2015

COP-302 : Organo Pharmaceutical Chemistry

(Org. Syntheses A Disconnection Approach)

[New Course]

Faculty Code : 003

Subject Code : 010304

Time : 2.30 Hours]

[Total Marks : 70

- Instructions :
- (i) All questions are compulsory.
  - (ii) Attempt all five questions.
  - (iii) All questions carry equal marks.

1 Answer any seven out of ten :

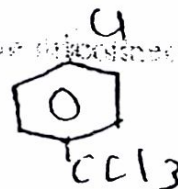
- ~~(a)~~ Define FGI giving a suitable example.
- ~~(b)~~ Derive Synthons and Synthetic equivalent considering a suitable example.
- ~~(c)~~ Define Disconnection.
- (d) Explain the term Umpolung.
- ~~(e)~~ What is one group disconnection; explain with example.
- (f) Explain two groups disconnection giving suitable example.

- ~~(g)~~ Write possible routes of disconnection for



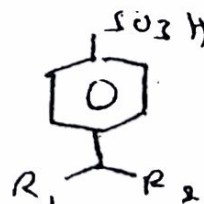
Identify the right route.

- ~~(h)~~ Write disconnection and give synthesis for



- (i) Explain disconnection of MeCO-CH2-CH2-O-CH2-Cl and write synthesis.

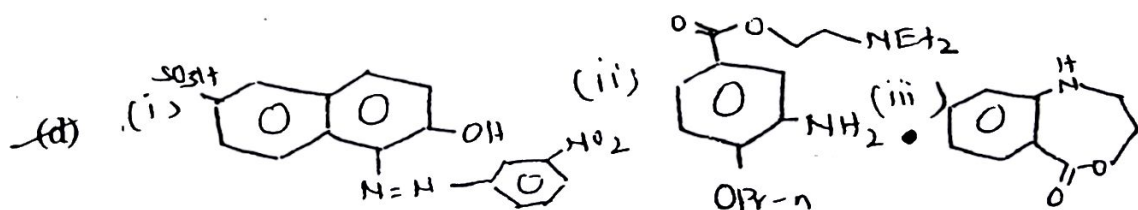
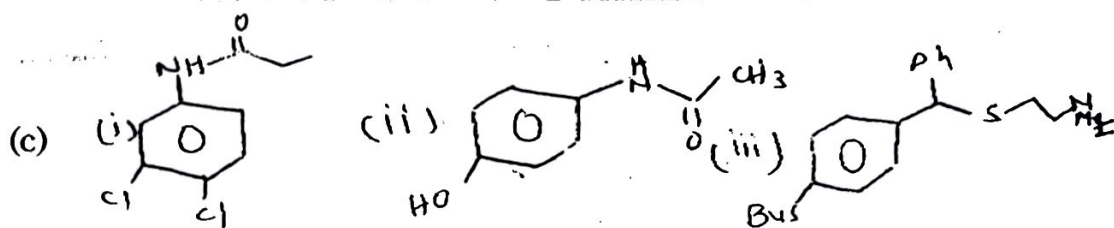
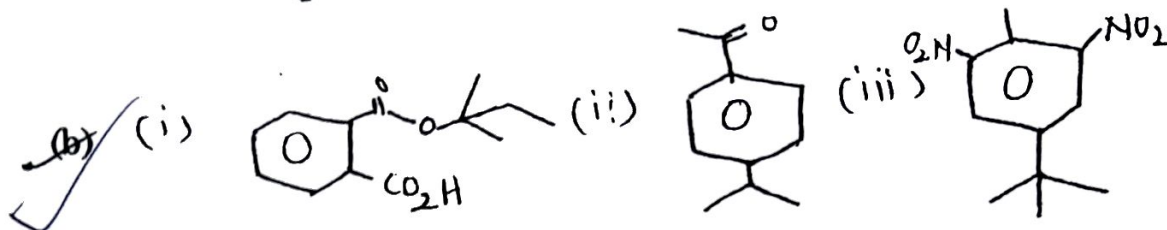
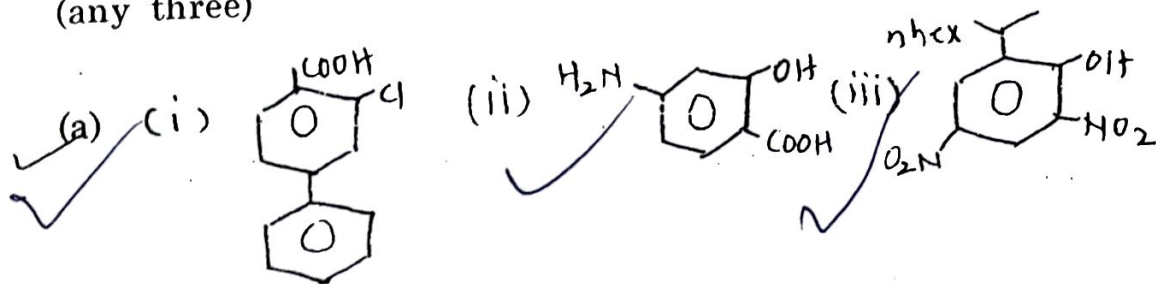
- (j) Write possible ways of disconnection of



which

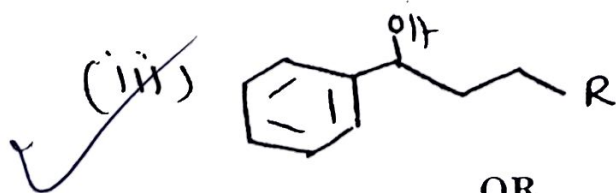
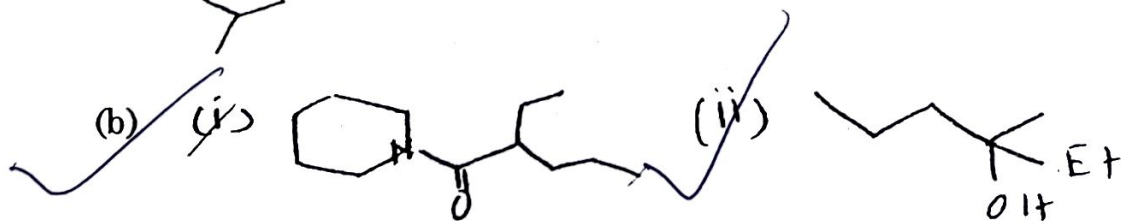
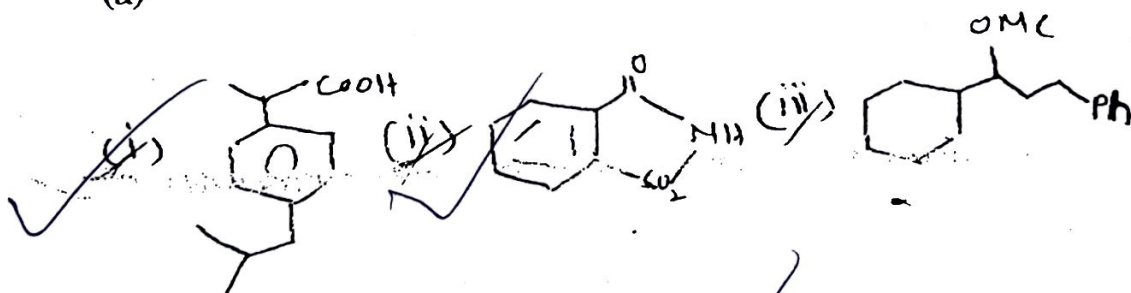
will be preferable. Justify it.

2 Write disconnection for following T.M. and give its synthesis. (any three)



3 Explain disconnection and write synthesis of following Target Molecules :

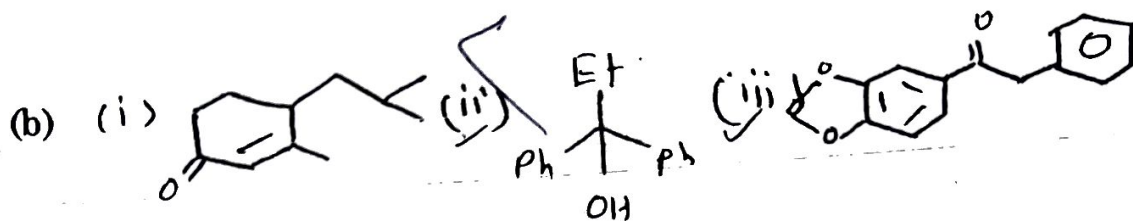
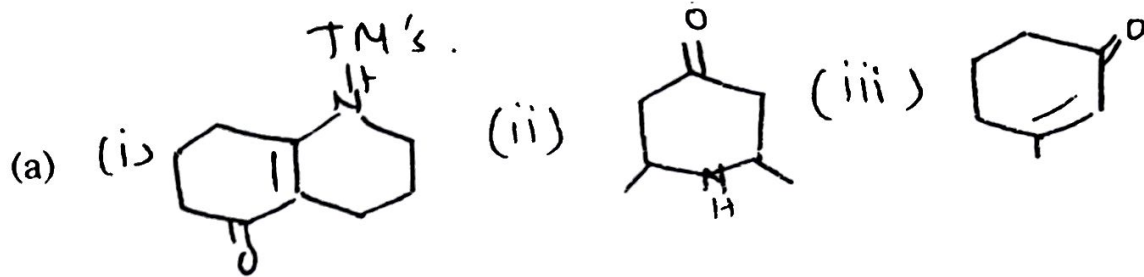
(a)



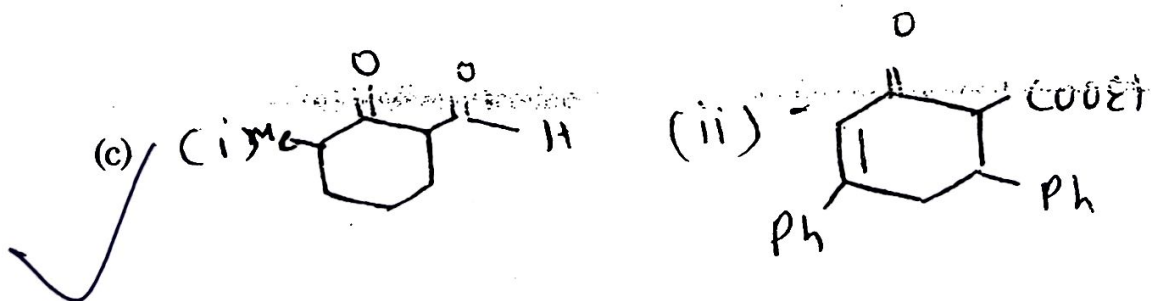
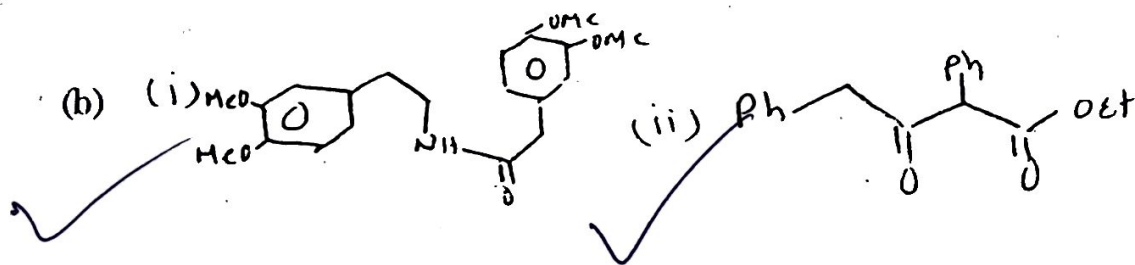
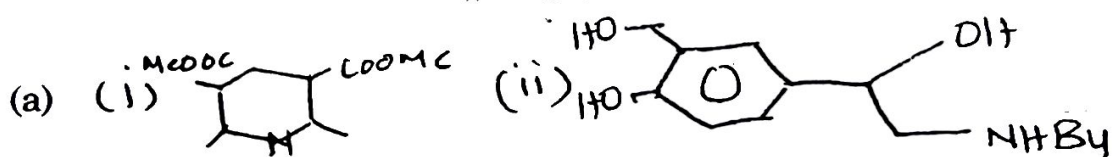
OR



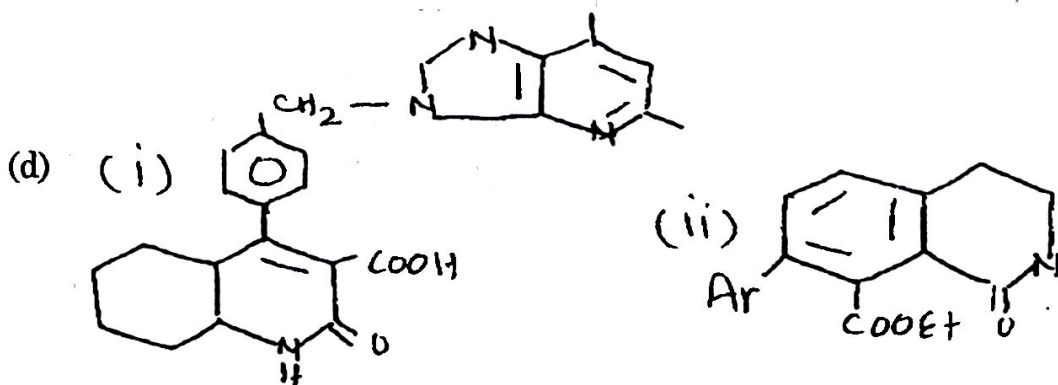
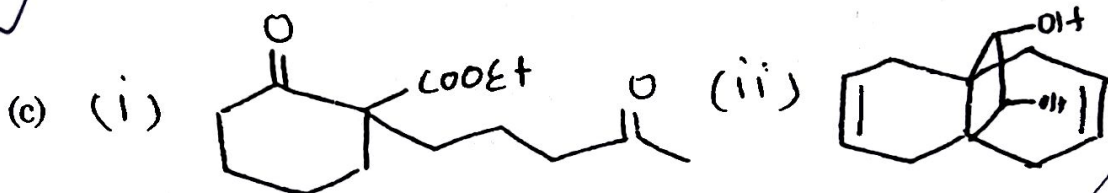
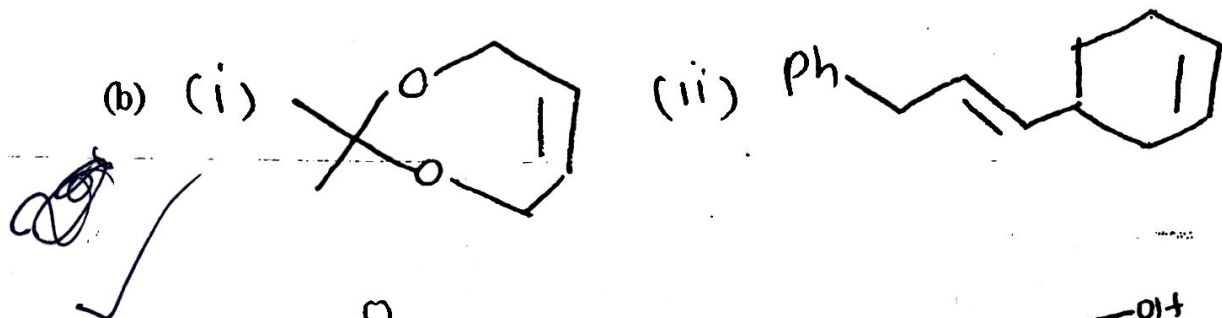
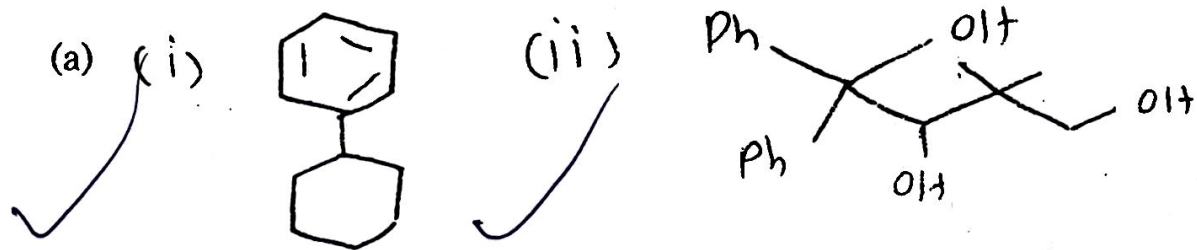
3 Explain disconnection and write synthesis of following TMs.



4 Write disconnection and give synthesis of any three of following :



5 Attempt any two of the following. Explain disconnection and give synthesis.



2/20 KEN'S

hramliya Dinesh

**WM-128**

**003-010304**

M.Sc. (CHE) (Sem.-III) (CBCS) Examination  
November-2014

C(OP)-302 : Disconnection Approach

Faculty Code : 003  
Subject Code : 010304

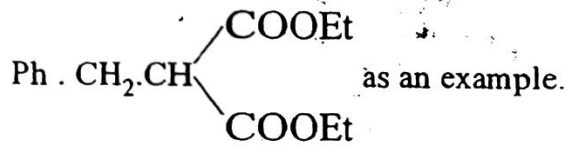
Time : 2½ Hours]

[Total Marks : 70

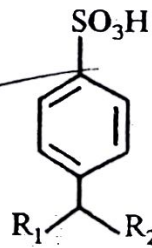
- Instructions : (1) All questions carry equal marks.  
(2) Attempt all questions.

1. Answer the following : (Any seven)

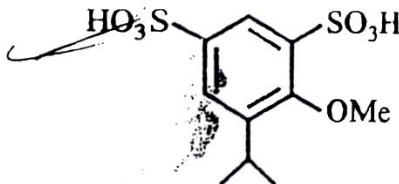
- (i) Define the terms "Disconnection Approach" and "Target Molecule".  
(ii) Define 'synthon' and 'synthetic equivalent'. Derive both using



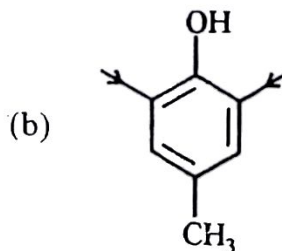
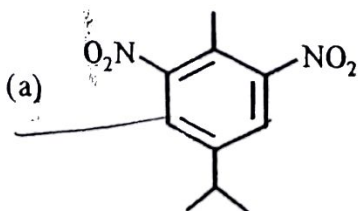
- (iii) Do the disconnection and plan the synthesis for piperonal.  
(iv) Explain : "Functional Group Interconversion" considering a suitable example.  
(v) Give an account on order of events considering following example :



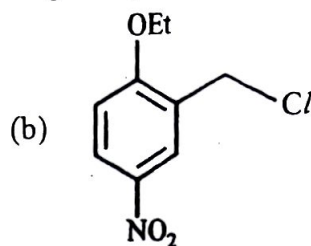
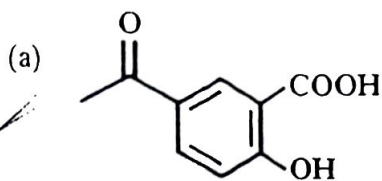
- (vi) Explain order of events considering following molecule :



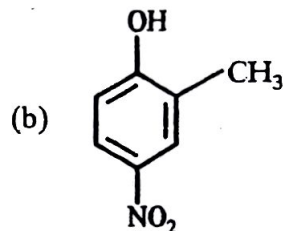
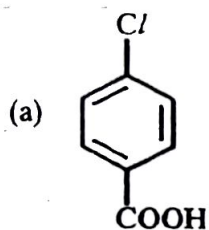
- (vii) Give retrosynthetic analysis of following molecules :



(viii) Represent retrosynthetic analysis and give synthesis of



(ix) Disconnect the following molecules and suggest the synthesis route.

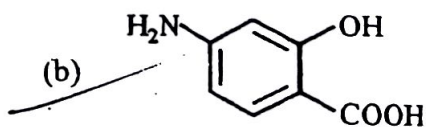
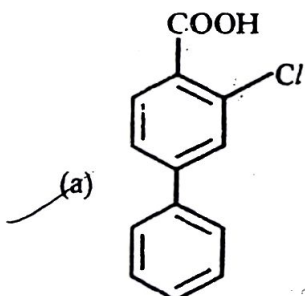


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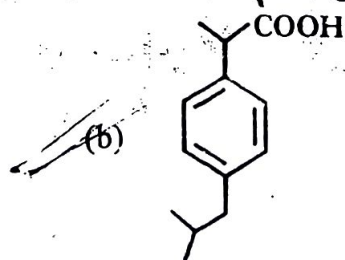
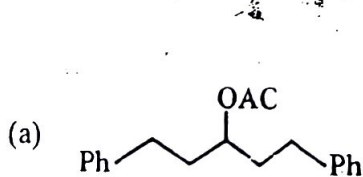
(x) Explain disconnection of "Benzocaine".

2. Answer the following : (Any three)

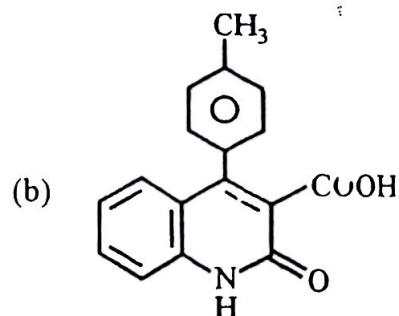
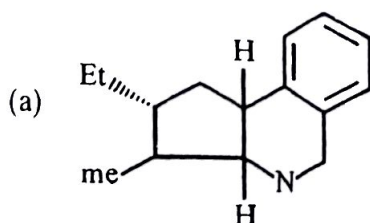
(i) Do the disconnections and plan the synthesis for the following :



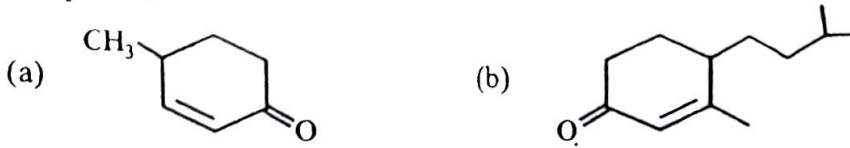
(ii) Give retrosynthetic analysis and synthesis of following target molecules :



(iii) Using the disconnection plan the synthesis of following molecules :

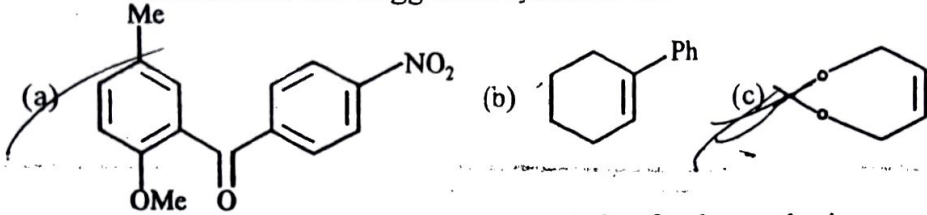


(iv) Using the disconnection for six-membered rings plan the synthesis for following compounds :

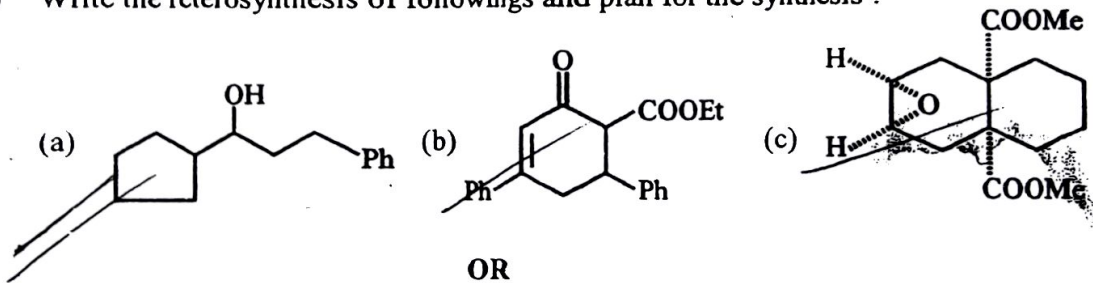


3. Answer the following :

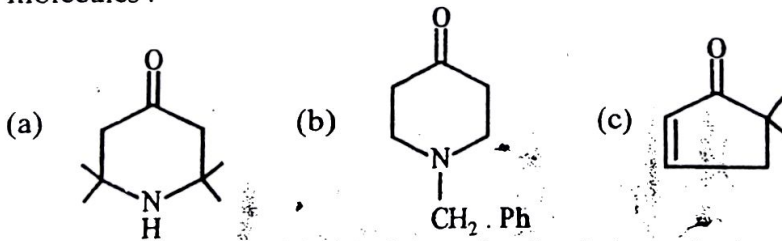
(i) Do the disconnection and suggest the synthesis of



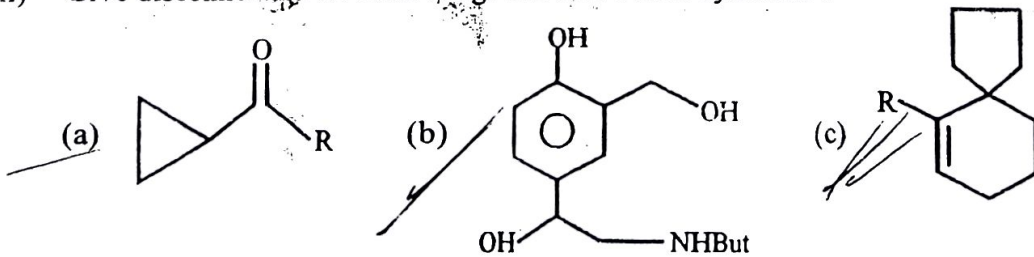
(ii) Write the retrosynthesis of followings and plan for the synthesis :



(i) Explain retrosynthetic analysis and write the synthesis of following target molecules :

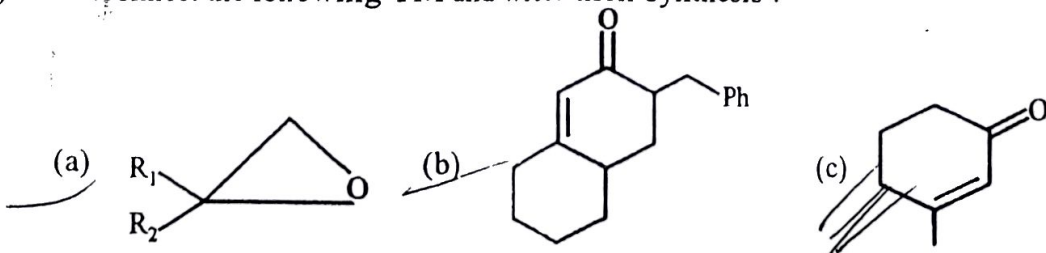


(ii) Give disconnection of followings and write their synthesis :



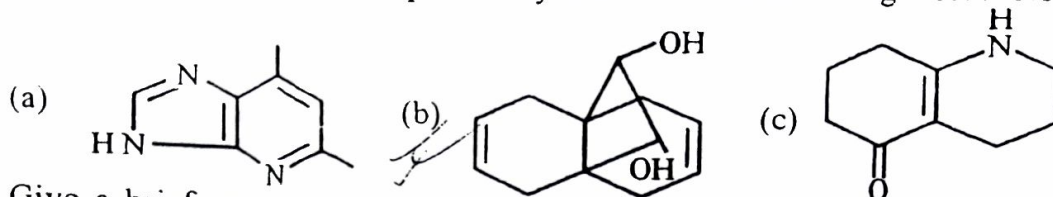
4. Answer the followings : (Any two)

(i) Disconnect the following TM and write their synthesis :

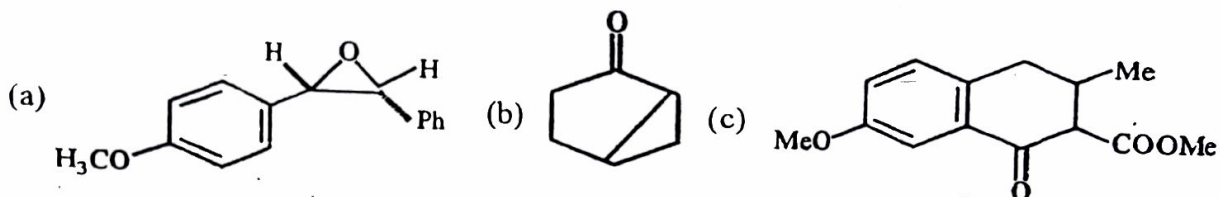




(ii) Give the disconnection and plan the synthesis for the following molecules :

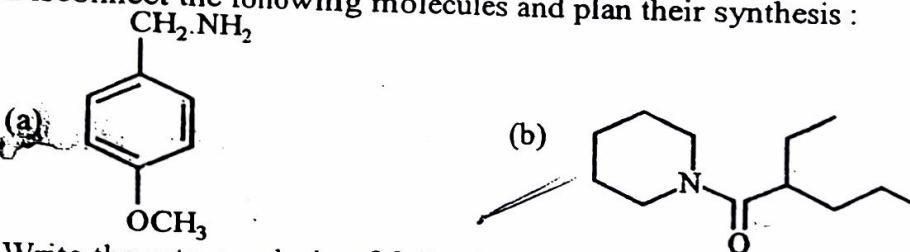


(iii) Give a brief account on disconnection of following molecules and write their synthesis :

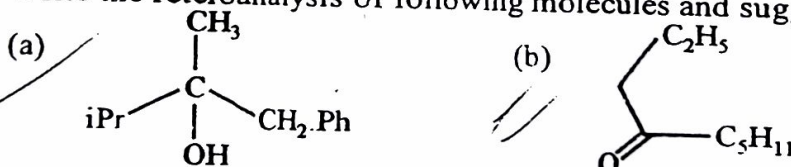


5. Answer the following : (Any three)

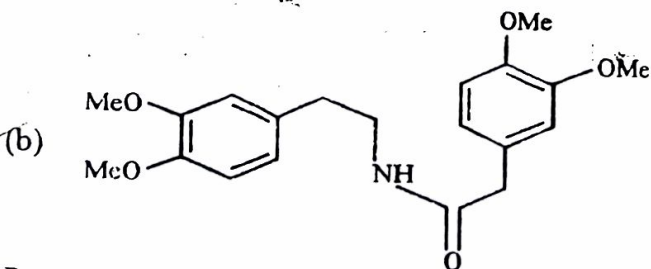
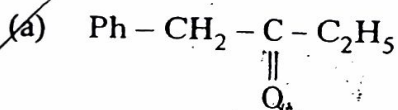
(i) Disconnect the following molecules and plan their synthesis :



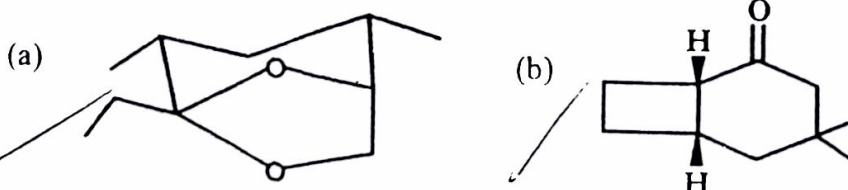
(ii) Write the retroanalysis of following molecules and suggest their synthesis :



(iii) Discuss disconnection and synthesis of following target molecules :



(iv) Represent the retroanalysis and synthetic route of following molecules :



Faculty Code : 003

Subject Code : 010304

Time : 2 ½ Hours]

[Total Marks : 70

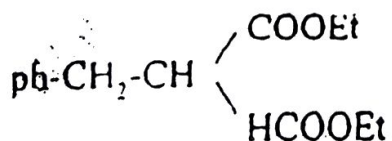
- Instructions : (1) All questions carry equal marks.  
 (2) Attempt all questions.

I. Answer any seven :

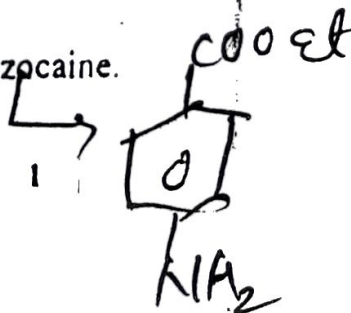
14

(a) Write retrosynthesis of pheromone multistriatin.

(b) How polarity can be reversed using cyanides ?

 (c) Explain one group disconnection. (d) Explain order of events with suitable example. (e) Explain Impolung giving suitable example. (f) Derive synthons and synthetic equivalents for TM (g) Explain difference between synthons and synthetic equivalent. (h) What is Functional Group Interconversion ? (i) Define "disconnection" using suitable example.

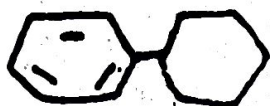
(j) Explain disconnection of benzocaine.



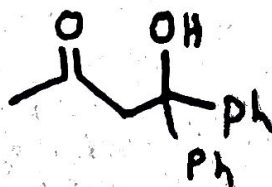
2. Attempt any two of the following :

I.

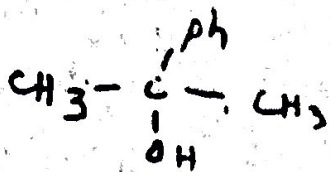
(a)



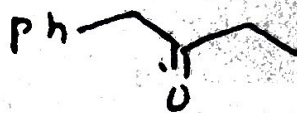
(b)



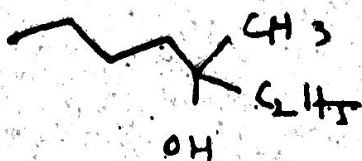
(c)



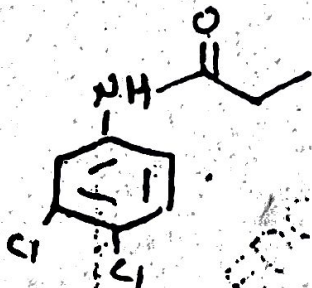
(d)



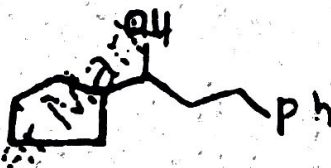
II. (a)



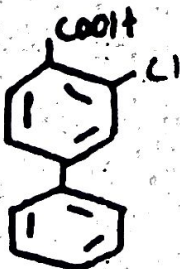
(b)

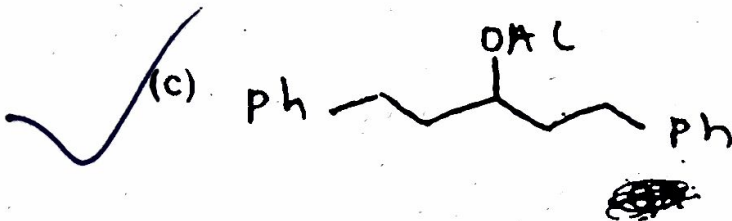
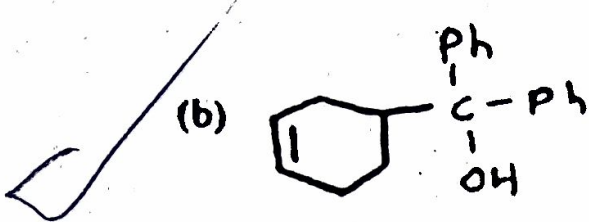
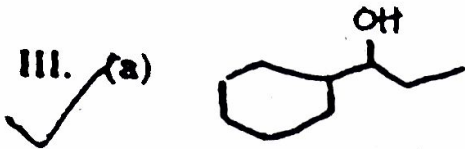


(c)

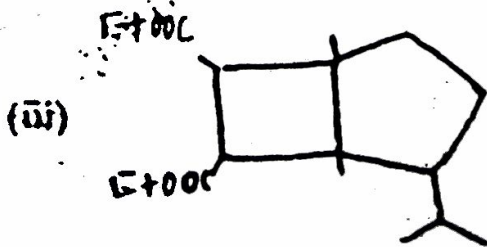
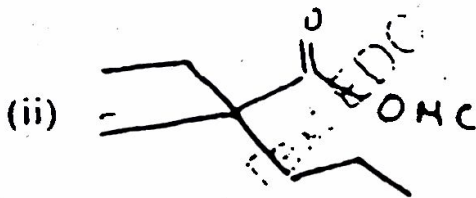
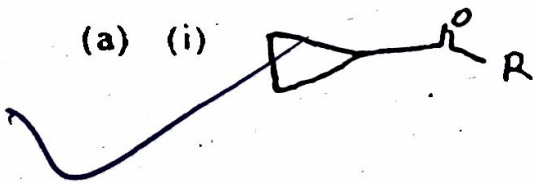


(d)

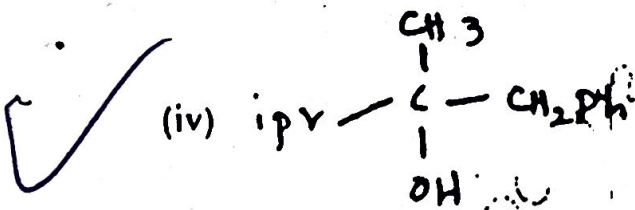
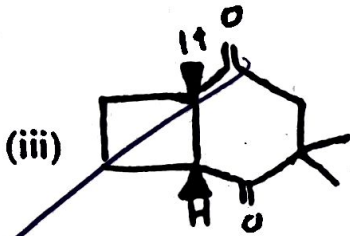
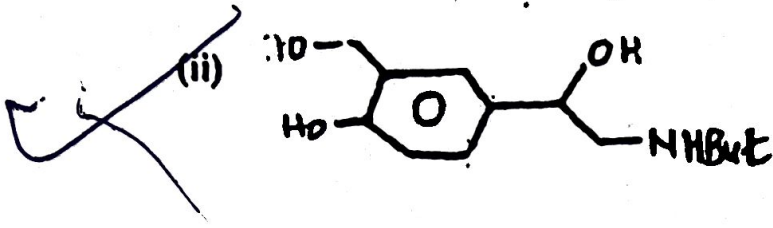
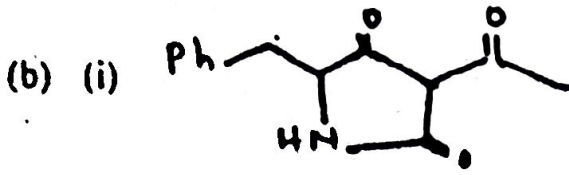




Answer the following :

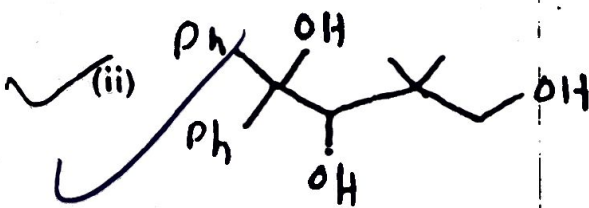
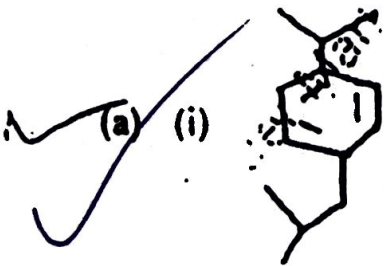




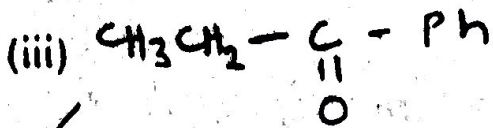


OR

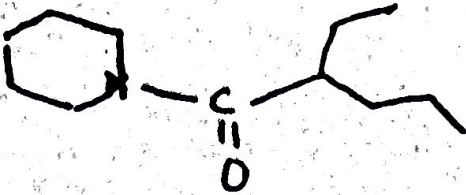
3. Answer the following:



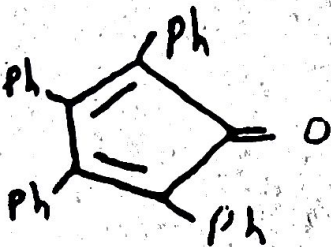




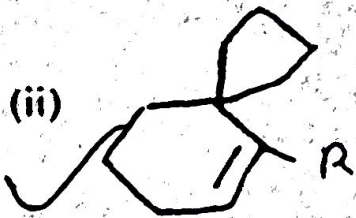
(iv)



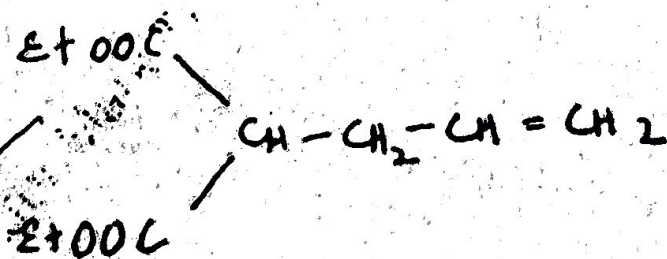
(b) (i)



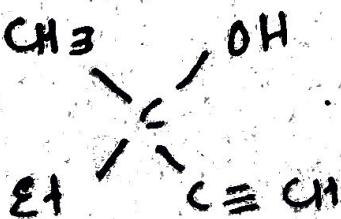
(ii)



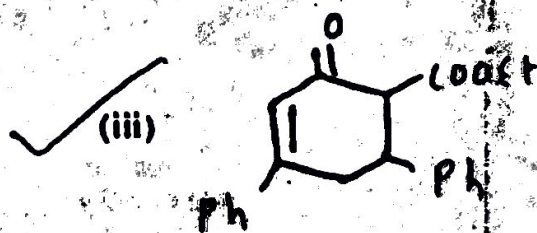
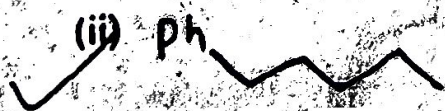
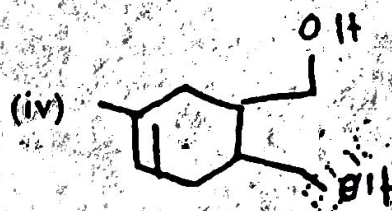
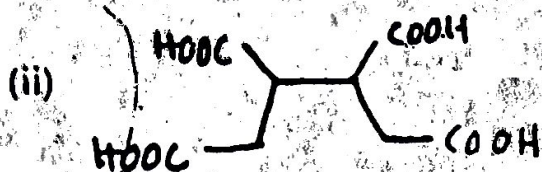
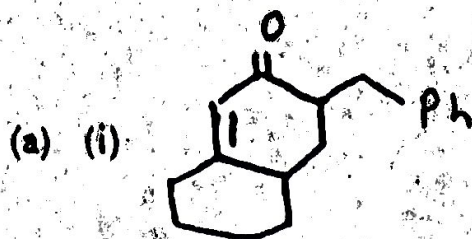
(iii)

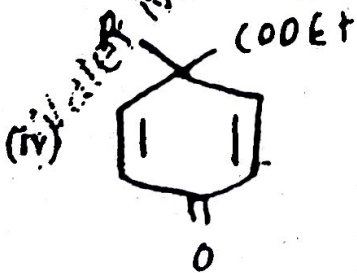
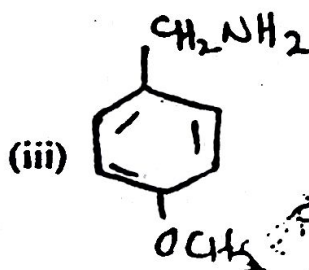
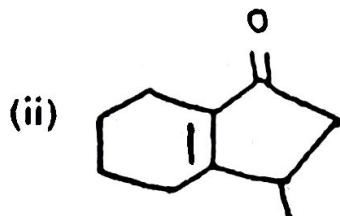
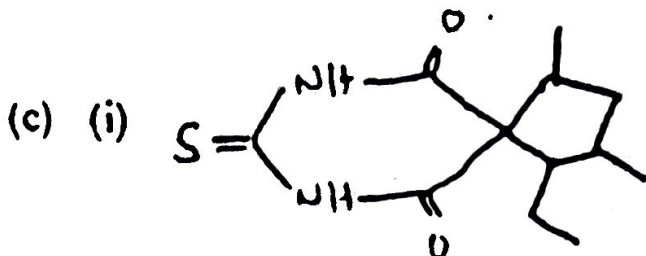
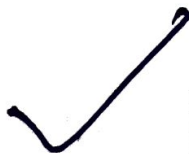
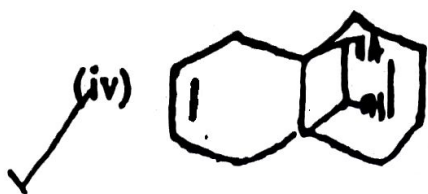


(iv)



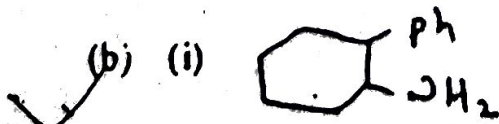
4. Answer any two of the following :



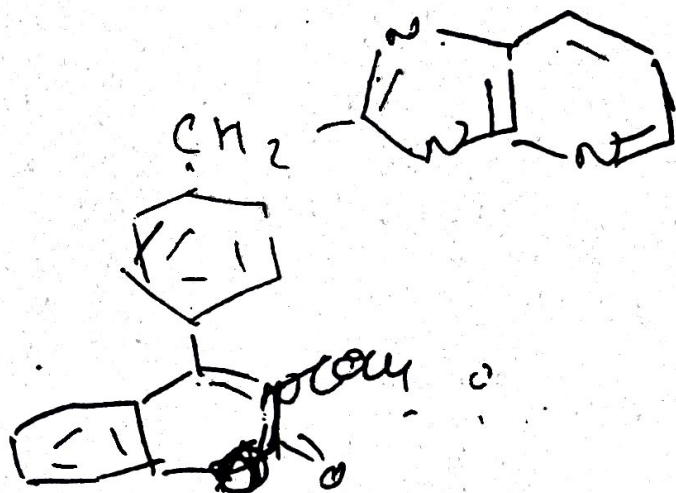
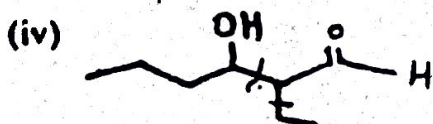
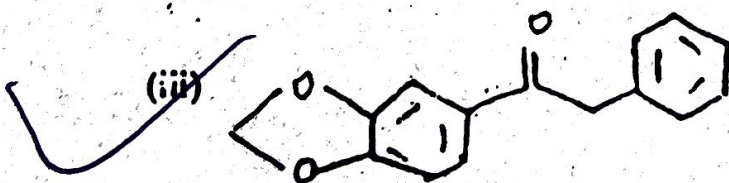
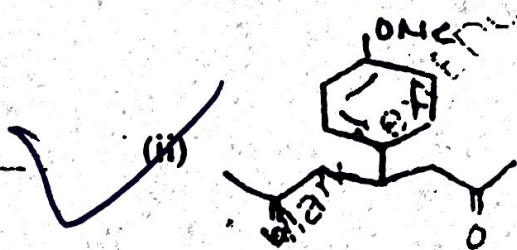
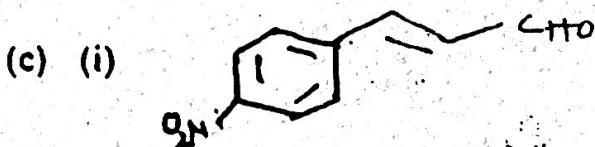
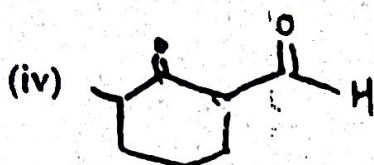
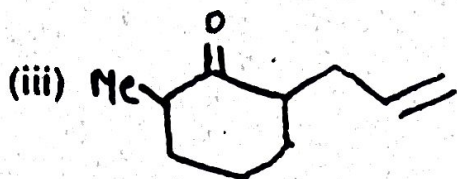
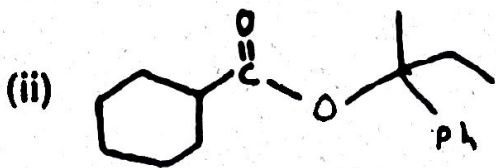


5. Answer any two :

(a) Write a short note on methods for reversal of polarity with reactions.







G-12

2

Namrataba

003-010304

MSC (CBCS) (Sem. III) Examination  
November-2012  
C-(OP)-302 Organic Synthesis  
A Disconnection Approach

KEN<sup>2</sup>

Faculty Code : 003  
Subject Code : 010304

Time : 2 1/4 Hours]

[Total Marks : 70

- Instructions : (1) All questions carry equal marks.  
(2) Attempt five questions in all.

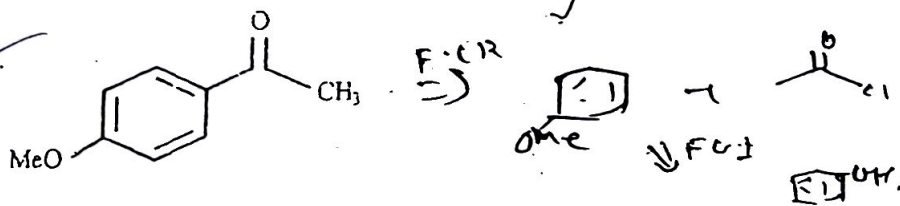
1. Answer seven out of ten :

(a) Define disconnection approach. ✓

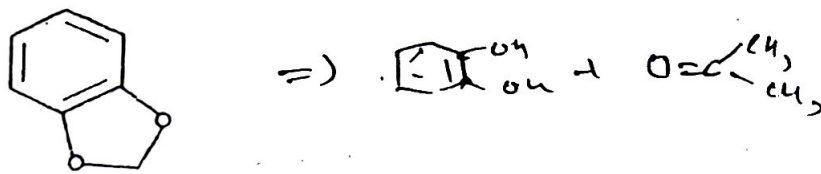
(b) Define FGI. ✓

(c) Define synthetic equivalent and synthon. ✓

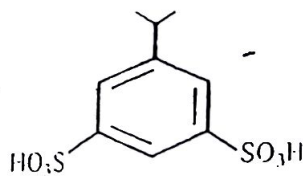
(d) Give disconnection and synthesis of full TM ✓



(e) Give disconnection and synthesis of full TM

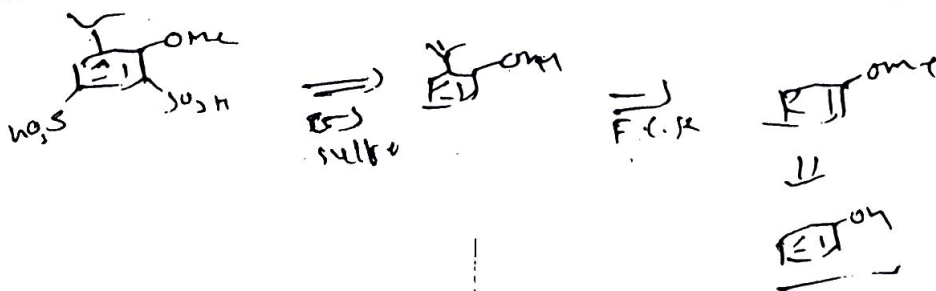


(f) Explain order of events for

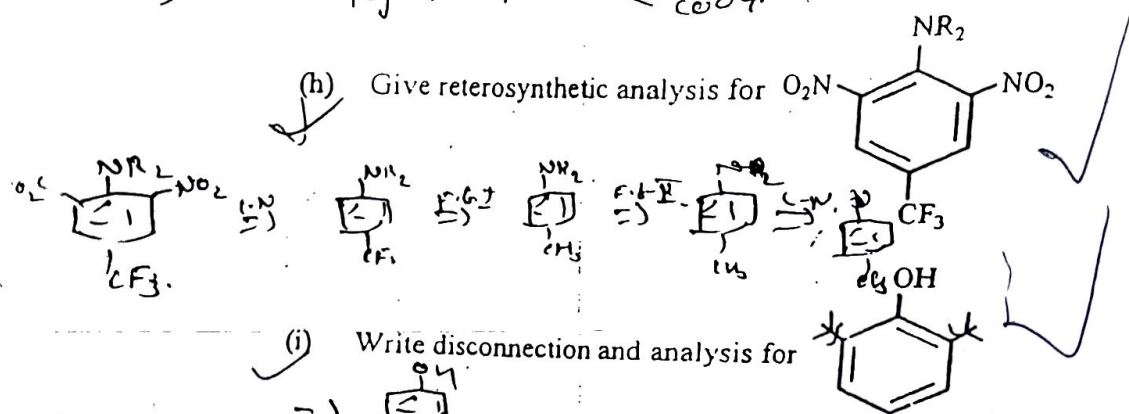
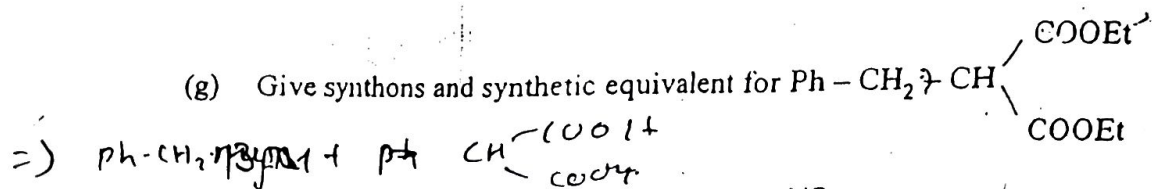


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P.T.O.



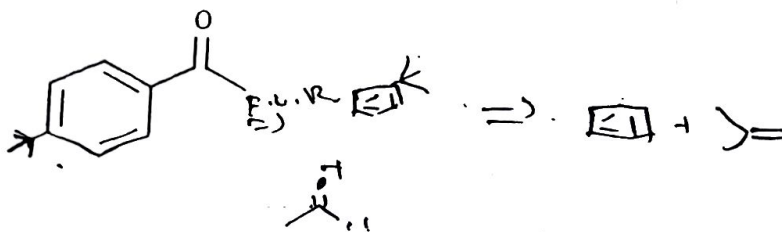




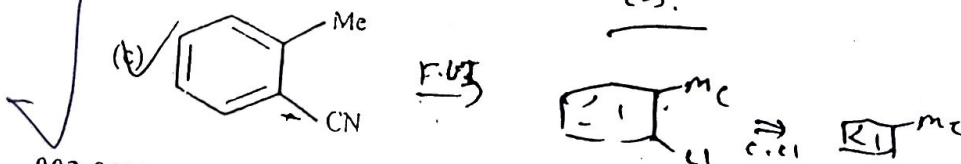
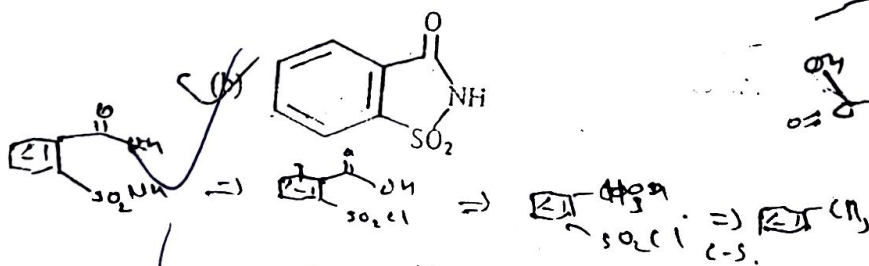
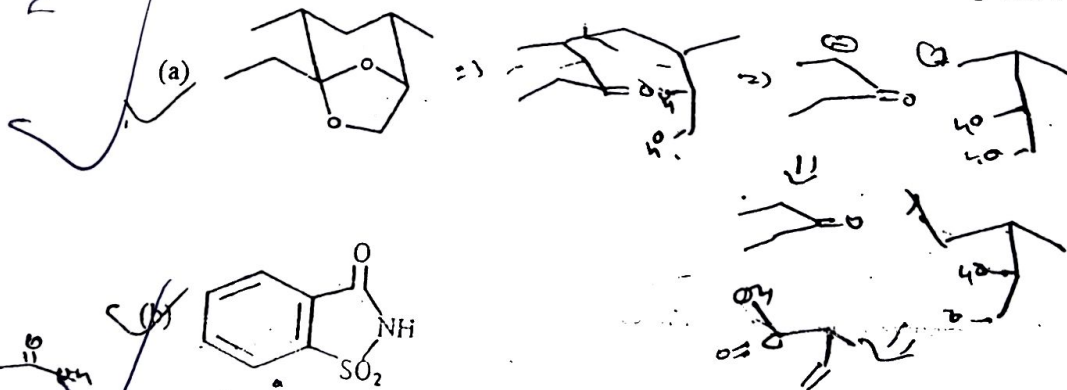
(i) Write disconnection and analysis for c1ccc(O)cc1



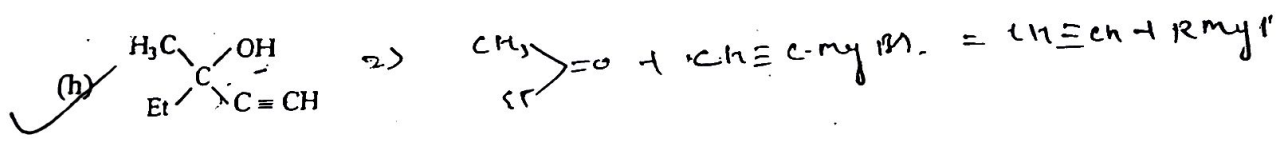
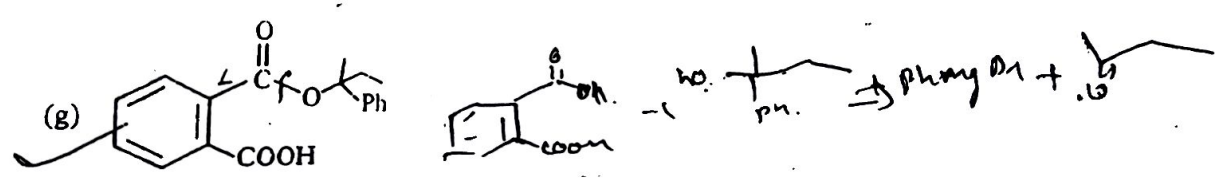
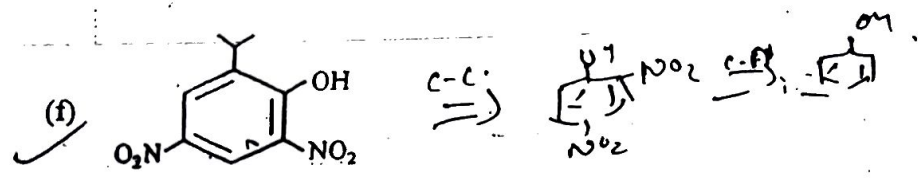
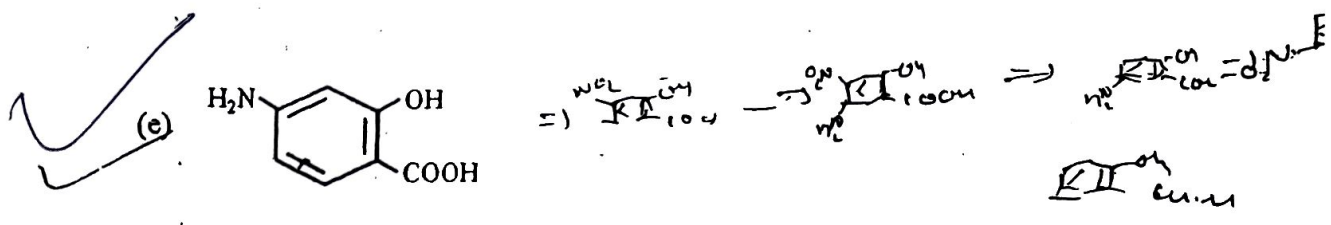
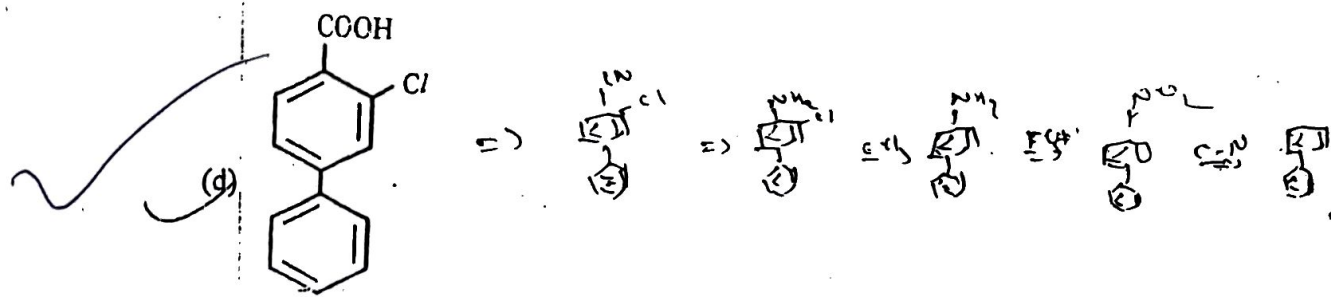
(j) Write possible ways for disconnection for full TM and give its synthesis.



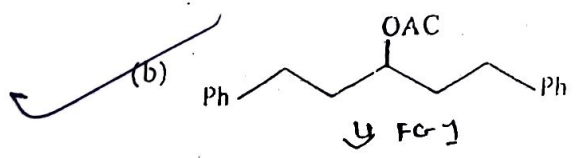
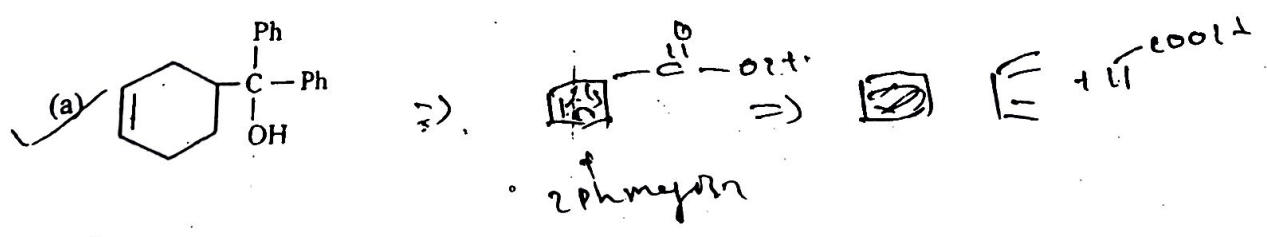
2. Represent retrosynthetic analysis and write synthesis of following TM :



003-010304



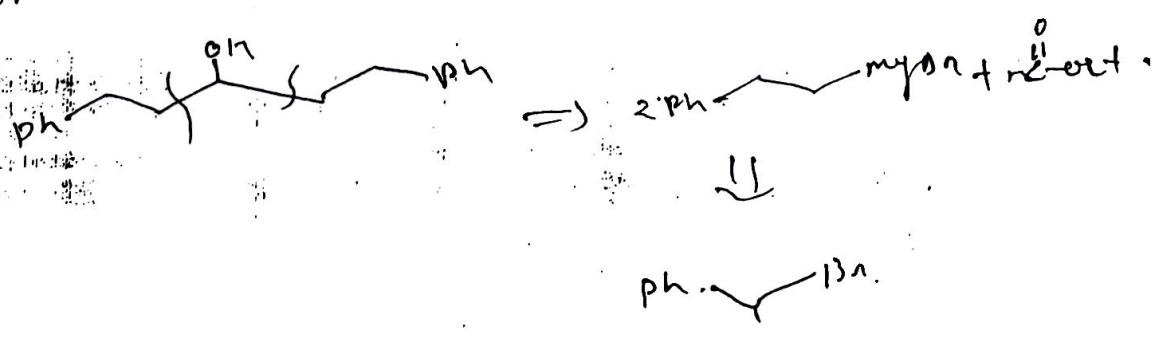
3. Write disconnection for following TM and represent its synthesis :

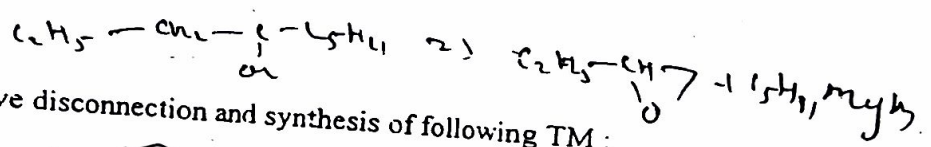
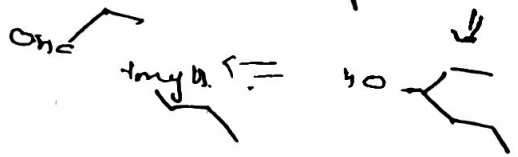
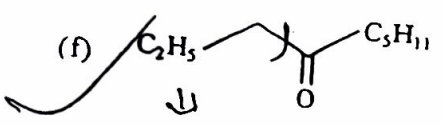
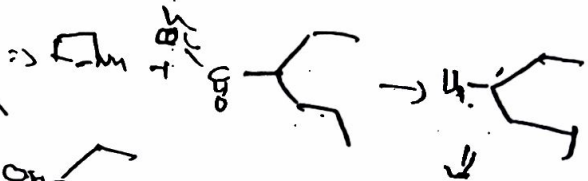
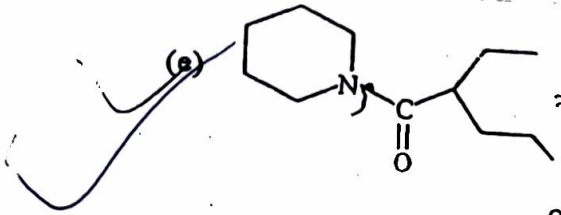
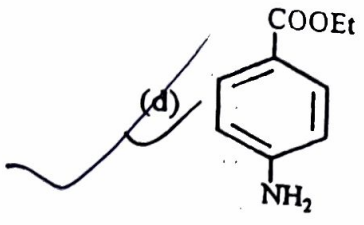
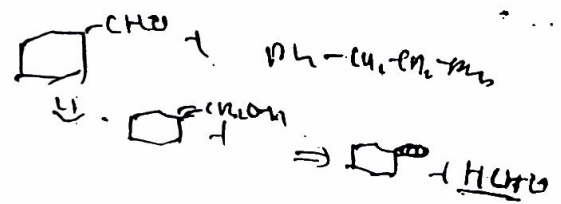
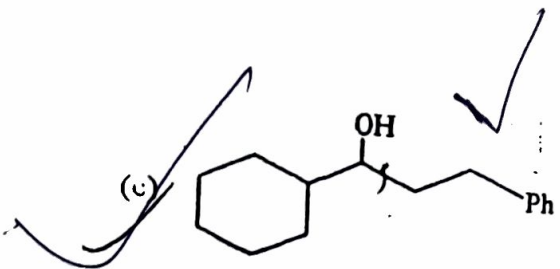


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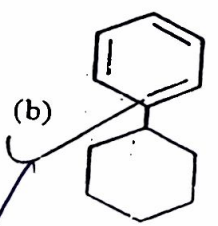
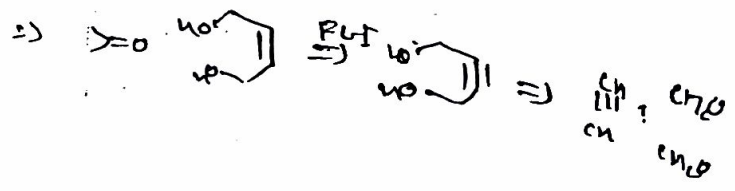
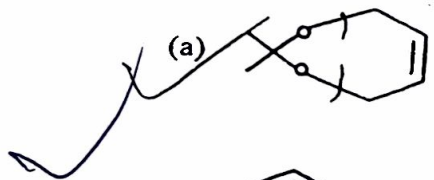
3

P.T.O.

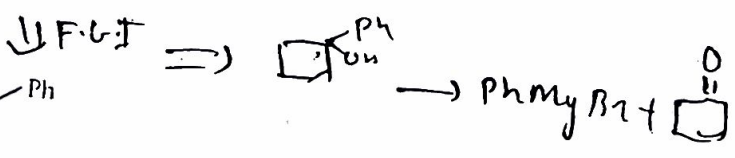
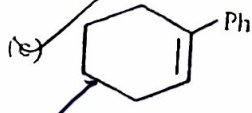
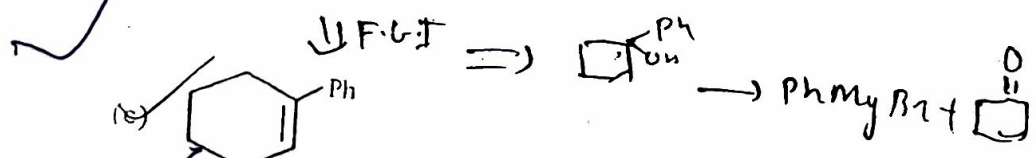




4. Give disconnection and synthesis of following TM:

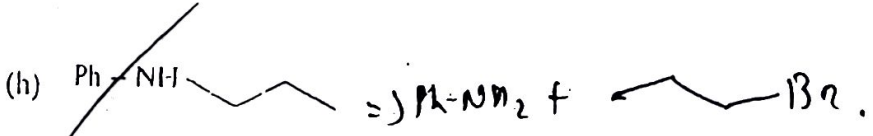
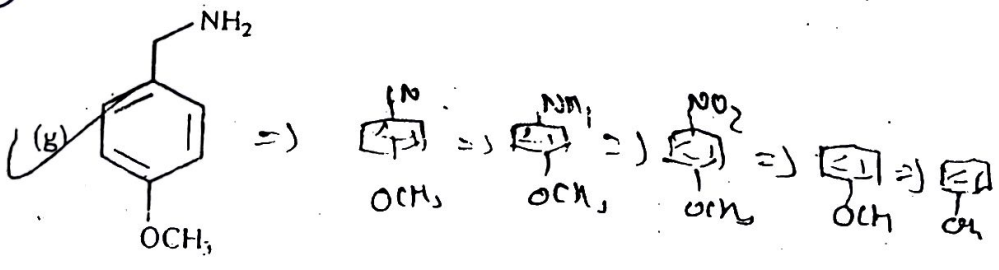
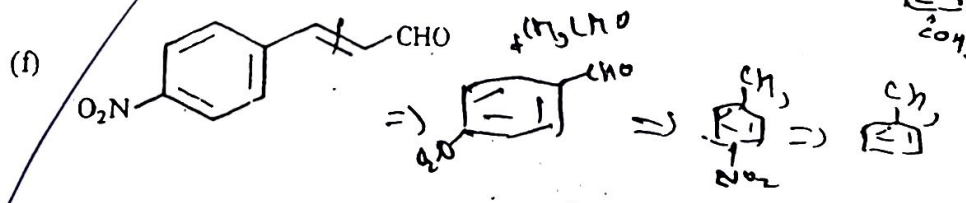
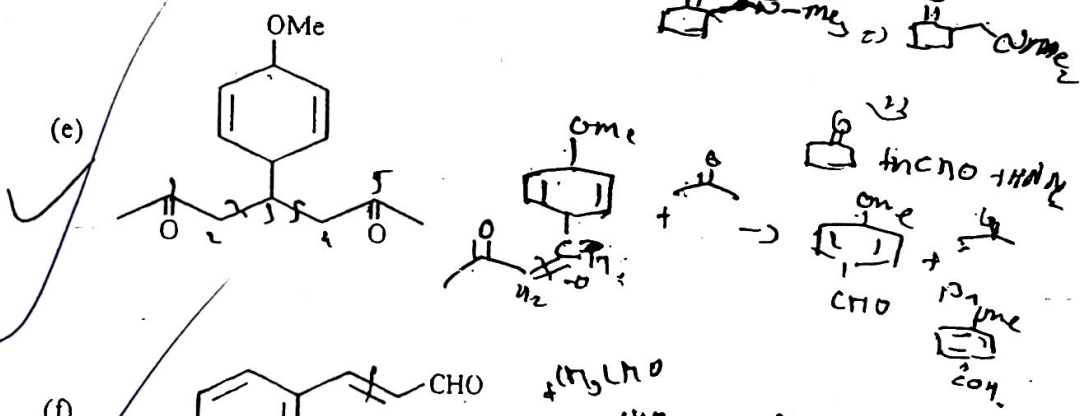
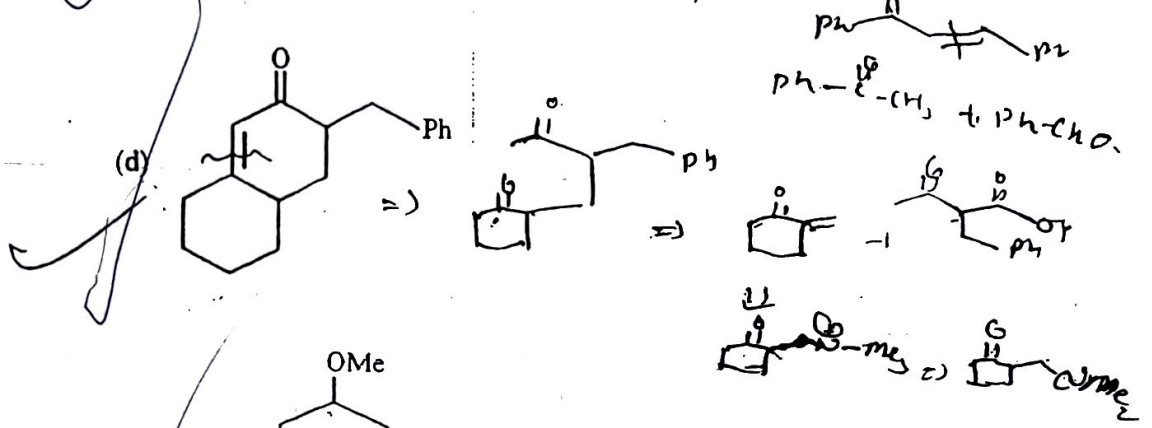
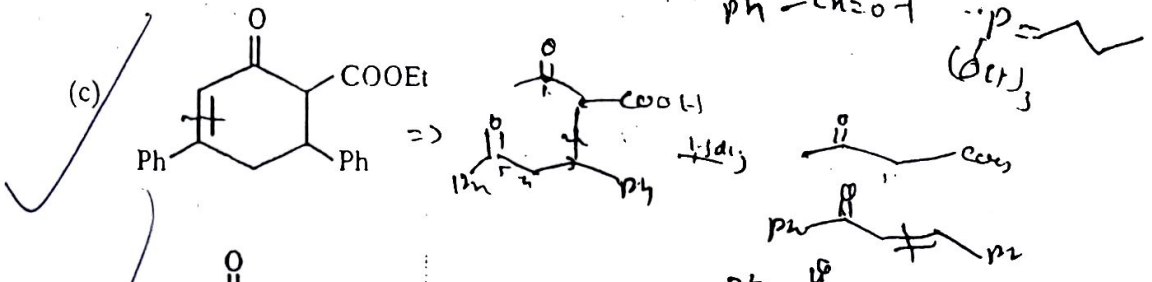
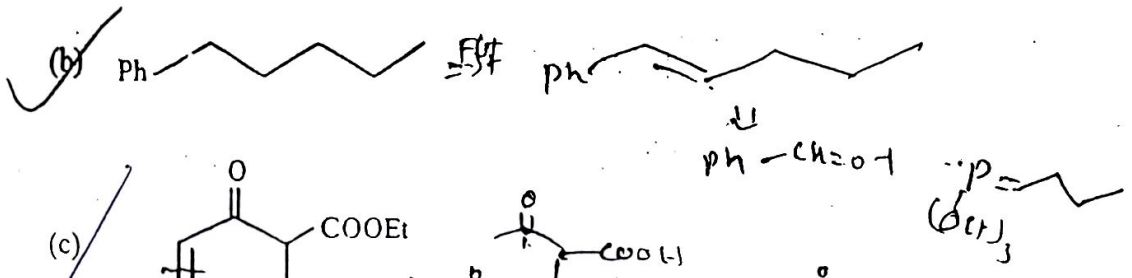


F.I.T



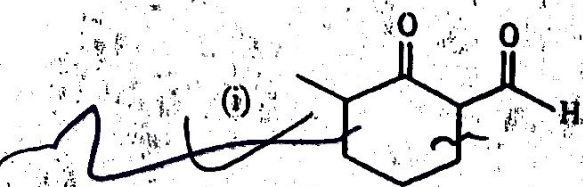
903-010304



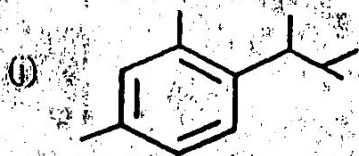
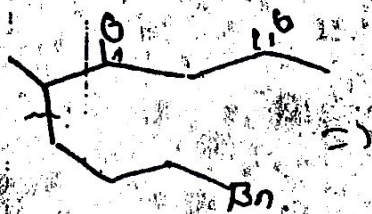


003-010304

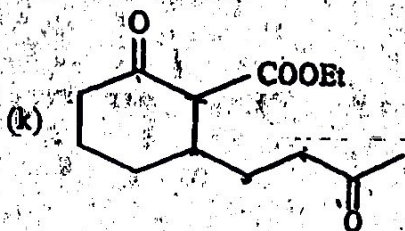
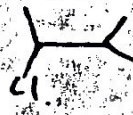




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003-010304

7

003-010304

Namrata Bai

M. Sc. (Sem. - III) (CBCS) Examination

December - 2011

C(OP) - 302 : Org. Synthesis - A Disconnection Approach

Faculty Code : 003  
Subject Code : 010304

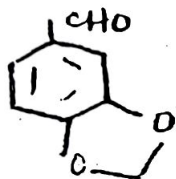
Time : 2½ Hours]

[Total Marks : 70

- Instructions : (1) Attempt all five questions.  
(2) All question carry equal marks.

1 Answer any seven :

- (a) Disconnect following TM and give its synthesis.



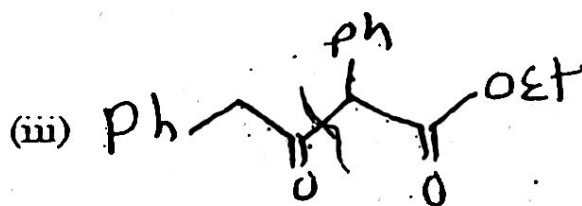
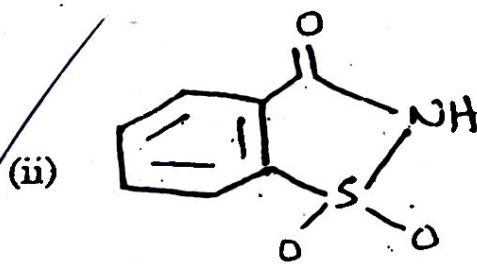
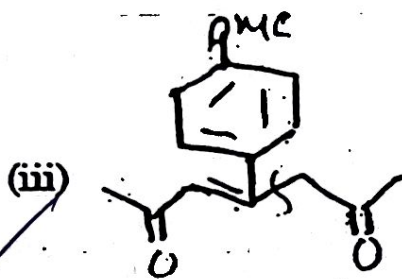
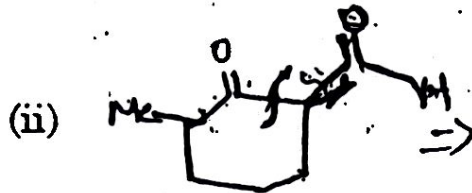
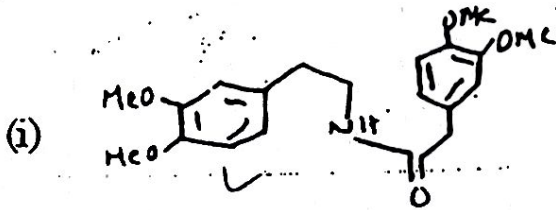
- (b) Define protection and deprotection.  
(c) How will you reverse polarity by use of alkynes?  
(d) Explain reversal of polarity by use of cyanides.  
(e) Discuss reversal of polarity by use of epoxides.  
(f) Define synthon.  
(g) Explain synthetic equivalent.  
(h) Define Reagent.  
(i) Define Functional Group Interconversion.  
(j) Define Disconnection.

Ph-CH2-CHO

Ph-CH2-CHO

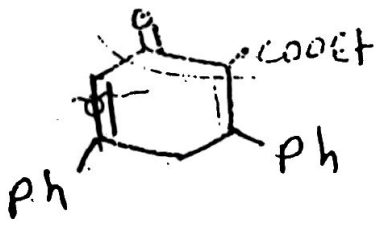
2 Answer any two :

(a) Disconnect following TM and give its synthesis.

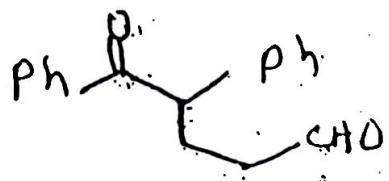




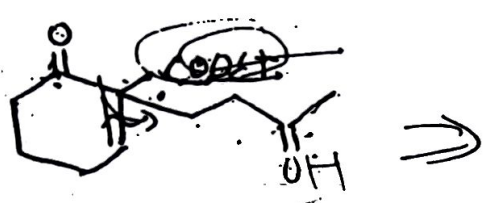
(c) (i)



(ii)



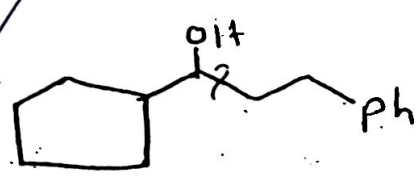
(iii)



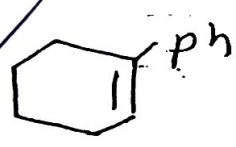
3 Answer the following :

(a) Represent disconnection and give synthesis of following TM

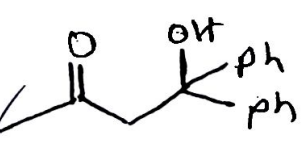
(i)



(ii)

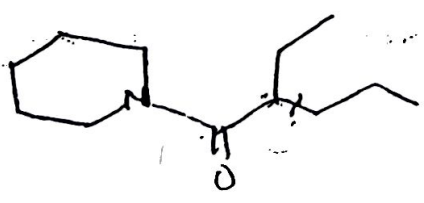


(iii)



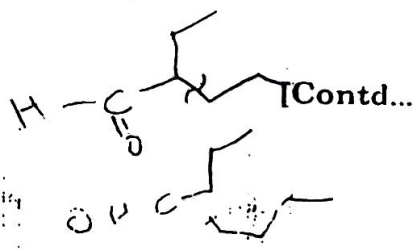
(b)

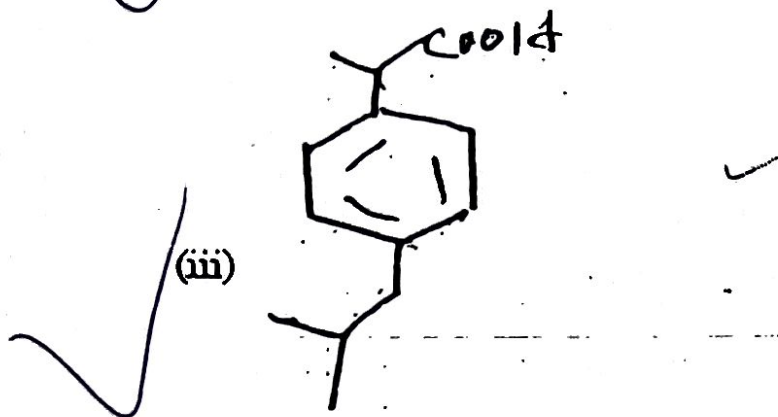
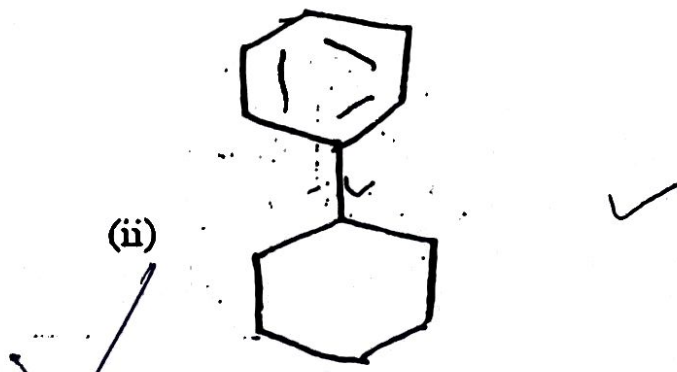
(i)



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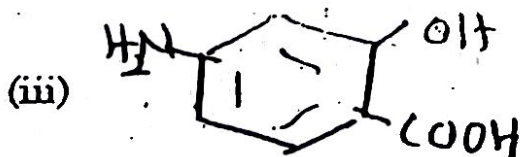
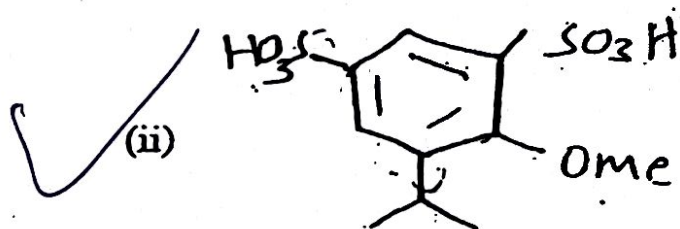
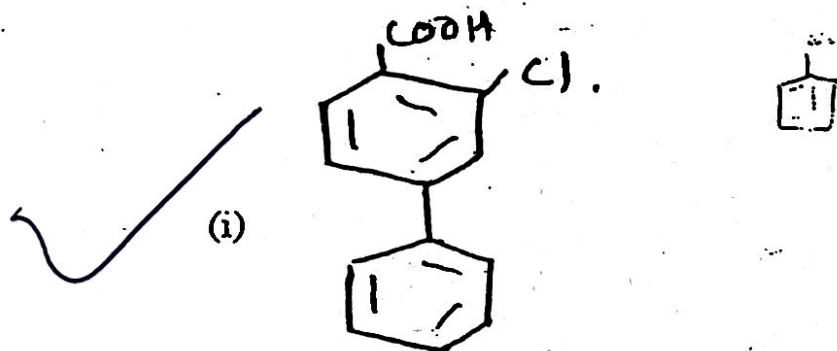
3





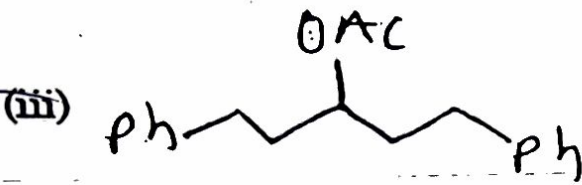
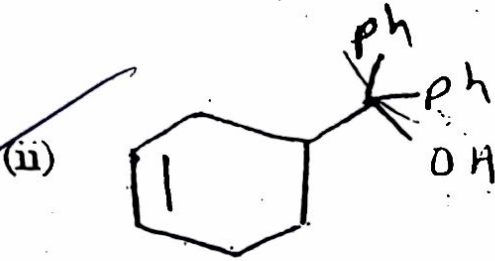
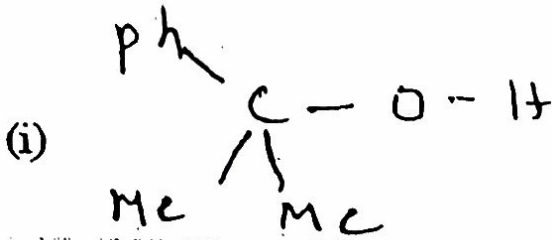
OR

3 (a) Give retrosynthetic analysis of following Target molecules and give its disconnection.



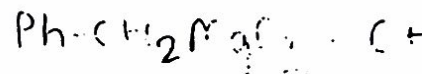
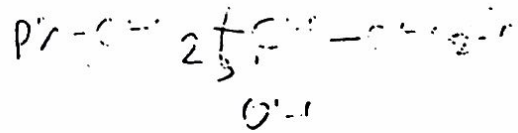
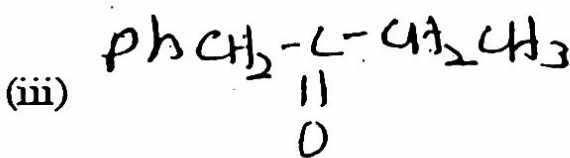
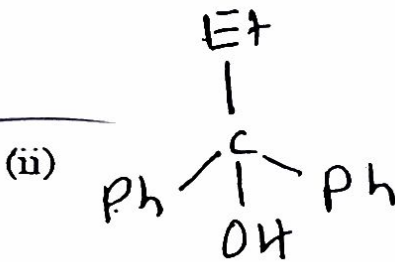
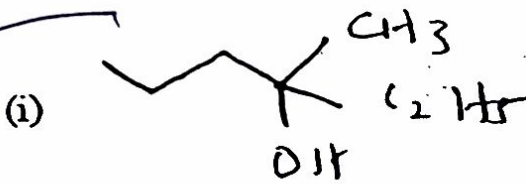


(b) Give disconnection and write synthesis of following :

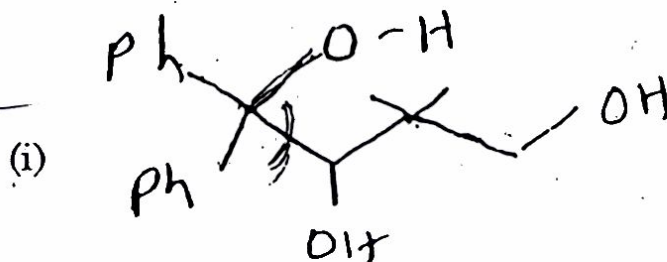


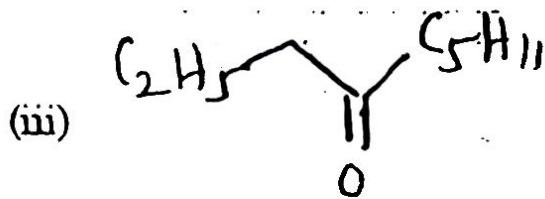
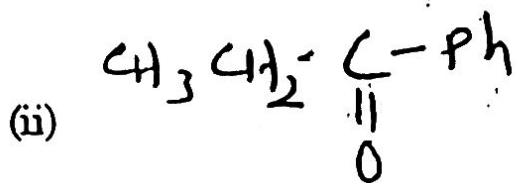
4. Answer the following :

(a) Give disconnections and synthesis of following :



(b)





5 Answer any two :

(a) Give retrosynthetic analysis and synthesis of following :

