



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/INTPCS/SEM-2/CH-425/2011**

**2011**

**SYNTHETIC & BIOLOGICAL ORGANIC CHEMISTRY**

Time Allotted : 3 Hours

Full Marks : 50

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

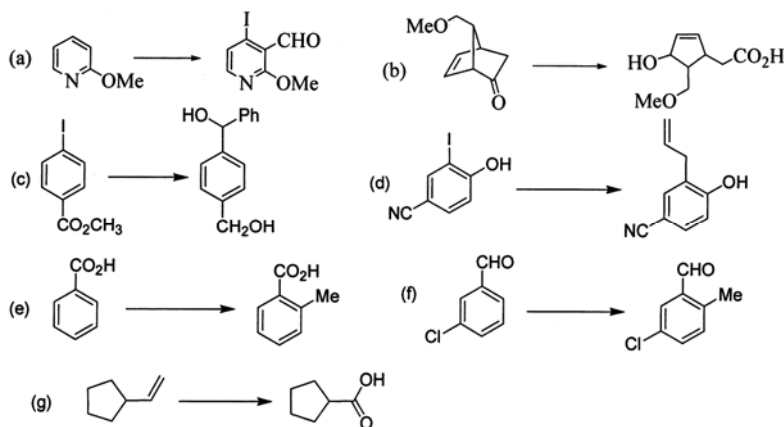
1. Choose the correct answer any *two* for the following :

2 × 3 = 6

- a) Suggest three protecting groups for amine functional group.
- b) Suggest three ortho directed metalation groups.
- c) What is chiral auxiliary ? Give one example.

2. How can you accomplish the following transformations (Any five) ?

5 × 2 = 10

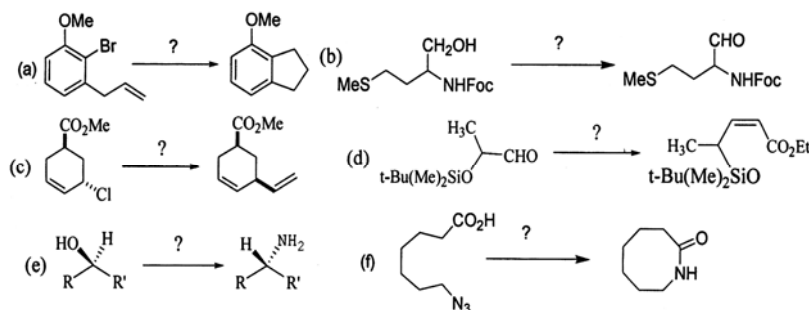


30052 (INTPCS)

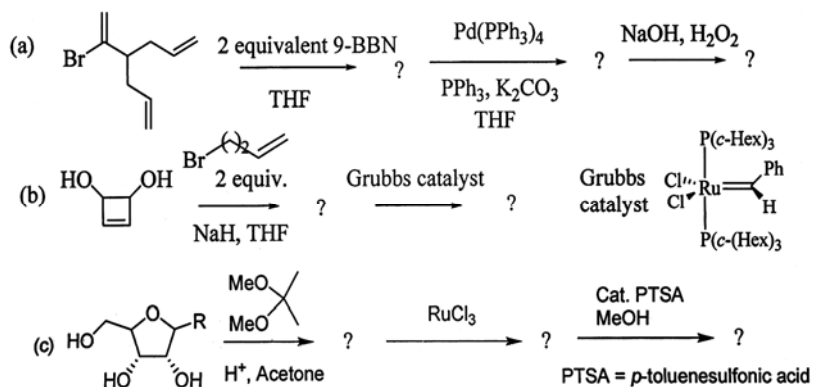
[ Turn over



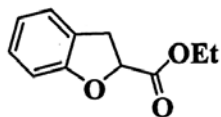
3. Write down the reagents for the following transformations  
(Any five) : 5 × 1 = 15

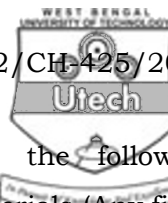


4. Write down the product for the following synthetic schemes  
(any two). 2 × 3 = 6



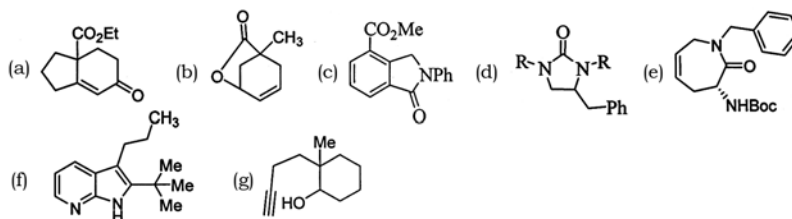
5. Write down the plausible Heck reaction mechanism for the synthesis of the following compound. 3





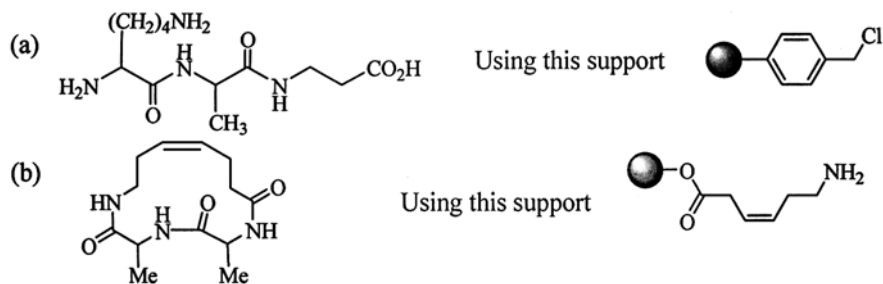
6. Suggest plausible synthetic schemes for the following compounds from easily available starting materials (Any five).

5 × 3 = 15



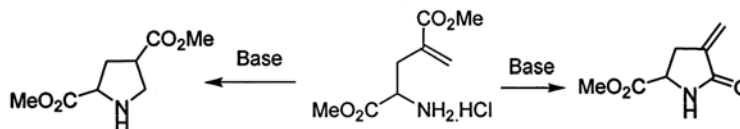
7. Suggest the synthetic schemes for the following peptide using solid support : (Any one).

3



8. The following starting material gives only one product upon base treatment. Which one is correct ? Explain based on ring closure rules.

2



OR

CS/INTPCS/SEM-2/CH-425/2011



Suggest a method to label the fullerene with the following fluorophore.

