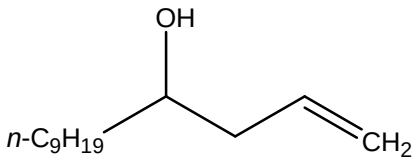
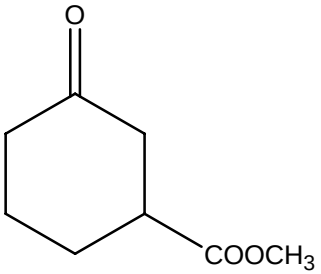
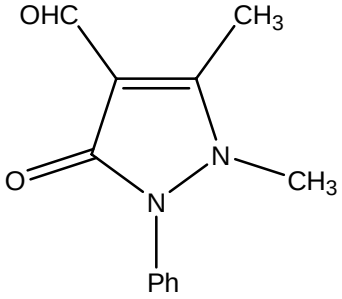
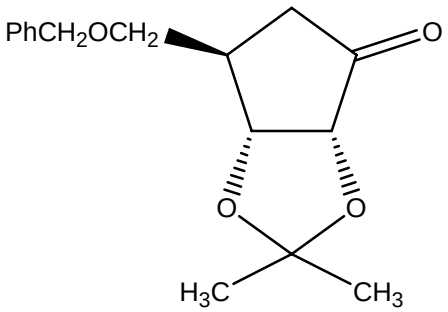
Задание №2. Восстановите схемы пяти пятистадийных синтезов.

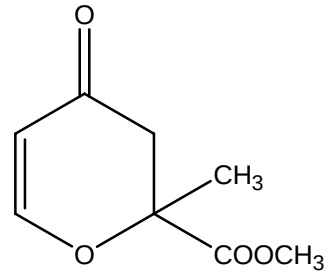
(целевые продукты приведены ниже)











A) **1.** $NaNO_2$/ HCl, 0-5ºC; .. **2.** $SnCl_2$/ HCl; ..... **3.** CH_3COCH_2COOEt .... **4.** MeI/ MeOH, Δ..... **5.** *1)* DMF/ $POCl_3$, Δ
EtOH, H^+ *2)* $NaHCO_3$, H_2O

B) **1.** *1)* OsO_4, NMO, ... **2.** *1)* O_3, CH_2Cl_2, –78ºC . **3.** $PhCH_2Cl$/ t-BuOK..... **4.** *1)* $MeSO_2Cl$/ Et_3N ..... **5.** *1)* DBU
t-BuOH/ H_2O *2)* $NaBH_4$ *2)* NaI/ acetone *2)* OsO_4/ $NaIO_4$
2) TsOH, t-BuOH/ THF/ H_2O
$(CH_3)_2C(OCH_3)_2$

C) **1.** P/ Br_2..... **2.** PhSH/ K_2CO_3, ... **3.** NCS/ CCl_4, 0ºC ..... **4.** Na_2CO_3 ..... **5.** Li/ naphthalene, THF, 0ºC
DMF, Δ CH_2=$CHCH_2OH$

D) **1.** HNO_3/ Δ..... **2.** MeOH/ H_2SO_4, Δ ..... **3.** Na, toluene/ Δ..... **4.** *1)* NaH ..... **5.** AIBN/ Bu_3SnH, Δ
2) CH_2I_2

E) **1**. $HCOOCH_3$/ MeONa .. **2.** MeOH/ HCl..... **3.** MeONa/ Δ ..... **4.** TMSCl/ Et_3N ..... **5.** *1)* $CH_3C(O)COOMe$,
$Cu(OTf)_2$/ CH_2Cl_2, –78ºC
2) TFA, CH_2Cl_2