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UG/2nd Sem/Chem/H/19

2019

B.Sc.

2nd Semester Examination
CHEMISTRY (Honours)
Paper - C4P

Full Marks : 20

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.
Illustrate the answers wherever necessary.*

Answer all questions.

1. Prepare an organic compound by the procedure mentioned below and
 - (i) report the yield of crude product.
 - (ii) submit the re-crystallised product.
 - (iii) note the melting point of the re-crystallised product.

[Turn Over]

Procedure of the preparation :

An acid mixture is to be prepared by mixing conc. HNO_3 (10 ml) and conc. H_2SO_4 (10 ml) in small portions with shaking and the mixture is to be cooled, kept in a round bottom flask. 5 ml nitrobenzene is to be added in small portions with shaking to ensure thorough mixing. Connect the flask with air condenser and heat on a boiling water bath (with frequent shaking) until a drop of liquid solidifies when added to a small quantity of cold water. (Heat it for about half an hour). Separation of a hard pale yellow cake indicates completion of the reaction. The content of the flask is to be poured then into 200 ml of ice-water with stirring. The solid mass is to be filtered under suction, wash with cold water and recrystallise from alcohol and dry the product. 15

2. Laboratory note book. 2
 3. Viva-voce. 3
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