



ANJAC - LDC CHEMISTRY CLUSTER PROGRAM

SCREENING TEST 2015 – 16



NOTIFICATION

This year under the ANJAC-LDC Chemistry Cluster program, a selected set of II M.Sc. students from the various colleges situated in and around Madurai, Dindigul, Aruppukottai and Virudunagar districts will undergo an intense coaching sessions from July 2015 to March 2016 by eminent professor of Chemistry. As tremendous effort is being put forward by the cluster partners (ANJAC and LDC) to organize this program for the benefit of the students and enhance the success rate of the program, this year the students for this coaching program will be selected only through a common screening test. The details of the screening test are given below.

1. Mode and month of the test

The screening test will be conducted either in the first week of July.

2. Test Center

The tentative test centre will be Ayya Nadar Janaki Ammal College, Sivakasi and /or Lady Doak College, Madurai.

3. The exact date, time and centre of the test will be intimated to the candidates through SMS/e-mail.

4. About the test

- Time duration of the screening test is 2 hours.
- Maximum marks to be scored is 150.
- The question paper contains 78 multiple choice questions (48 Part A + 30 Part B). You are required to answer a maximum of 36 questions from Part A and 15 from Part B.
- Each question in part A carries 2½ marks and Part B, 4 marks.
- Be cautious while selecting the question. After you answer the required maximum number of question in each part, the remaining questions will be disabled to proceed further in that part.
- Calculator will be available in the system itself.
- No negative marking for wrong answer.
- Paper would be provided for doing rough work.

5. About last date for Registration

Students are asked to register for the screening test on on-line between 18th and 25th June 2015. For application form, please login **www.anjaonline.org**

6. About the syllabi for test**a. ORGANIC CHEMISTRY :**

IUPAC nomenclature – aromaticity – organic reaction intermediates – conformational analysis – stereochemistry – pericyclic reactions – organic reaction mechanisms – named reactions and rearrangements – substitution / elimination reactions – spectroscopy.

b. INORGANIC CHEMISTRY:

acid-base concept – M.O. theory – hybridisation and Bent's rule – term symbol – metal cluster – non-aqueous solvents – poly acids - silicates – P-N, S-N compounds – boranes and carbonanes – solid state chemistry - ^1H , ^{13}C , ^{19}F , ^{31}P NMR of inorganic compounds – ESR – coordination complexes – CFT, MOT, magnetic properties, electronic spectroscopy, stereochemistry – Jahn-Teller distortion, CFSE, π -complexes – lanthanides and actinides.

c. PHYSICAL CHEMISTRY:

Chemical thermodynamics – chemical equilibrium – chemical kinetics – catalysis – electrochemistry – statistical thermodynamics – polymer chemistry – phase rule – group theory – quantum chemistry