

## NSEC - 2017

### A Detailed Analysis by Resonance

#### INTRODUCTION

On 26<sup>th</sup> November 2017, NSEC (National Standard Examination in Chemistry) – 2017 exam was conducted by the Indian Association of Physics Teachers (IAPT) at many centers all over the country. NSEC is the stepping stage for selection of aspiring and talented students in the Chemistry Olympiad Program. The student can move forward to other stages only after clearing this stage.

**Eligibility:** Only Indian citizens with date of birth between 1 July 1998 and 30 June 2003, both days inclusive and studying in Class XII or lower as of November 30, 2017, can apply and appear for NSEC 2017. The student has to himself re-assure his eligibility. At any stage if the student is found to be not eligible for the exam, he/she may be disqualified from the program. The student must not be appearing in NSEJS 2017.

**Syllabus:** The syllabus for National Standard Examination in Chemistry (NSEC) is almost similar as the curriculum of senior secondary level (Class XI and Class XII) of CBSE. However, only basic guideline for the course is mentioned. No detailed syllabus is given for NSEC.

**Question Paper:** The medium of test was English only and it comprised of 80 objective type questions, each with only one of the four options correct with 3 marks each and -1 negative marking for incorrect answer.

**Qualifying for the Second Stage:** The basic objective of conducting this test is not focusing on merit but to involve as many students from the country to participate in the exam and try to show and expose their talent. Hence the selection to the stage II examinations i.e. Indian National Olympiad Examinations (INOs) is based on the following scheme.

- **Cutoff:** To be eligible to get to the next level, i.e. the second stage, it is necessary that a student scores at-least a Minimum Admissible Score (MAS) which is 40% of the maximum score.
- **Proportional Representation Clause:** The maximum number of students that can get to Stage II (INO) in each subject is around 300. These many students are not selected only on the merit basis but also on proportionate basis. This proportion is decided on the base of the number of candidates who appeared for NSE in the previous year from that center in each State or Union Territory (UT). In case there is a tie at the last position, then all the students competing for the last position will be eligible to move to stage II. However it's necessary that the selected students fulfill the eligibility clause laid out above. The total number to be selected from centers in each State for each subject will be displayed on the IAPT and HBCSE website.

- **Minimum Representation Clause:** Notwithstanding the proportional representation clause the number of students selected for INO from each State and UT must be at least one, provided that the eligibility clause is satisfied.
- **Merit Clause:** As stated above, approximately 300 students are to be selected for second stage. If this does not happen according to MAS, then after selection as per merit, the shortfall from 300 students will be selected based purely on merit without further consideration to proportional representation and minimum representation clauses. In the event of a tie at the last position in the list all students with the same marks at this position will qualify to appear for the Stage II examination.

There will be no other criterion or provision for selection to the Indian National Olympiad Examinations (INOs). All students who qualify to appear for the INCO get a certificate of merit from IAPT.

### OVERALL MARKS DISTRIBUTION

The paper pattern was same as last year. The paper had 80 questions each worth 3 marks (negative marking of 1 marks). All questions were objective type with single correct option.

SUBJECT	Class 11		Class 12		Total	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Chemistry	35	105	45	135	80	240

### OVERALL DIFFICULTY LEVEL ANALYSIS

In this analysis we have rated every question on a scale of 1 to 3. The ratings are done by expert faculty of Resonance. The individual ratings are then averaged to calculate overall difficulty level.

- 1: Easy
- 2: Moderate
- 3: Difficult

Difficulty Level	Number of Question	Total Marks
Easy	19	57
Medium	61	183
Grand Total	<b>80</b>	<b>240</b>
<b>Aggregate Difficulty</b>	1.76	

#### Difficulty Level Analysis: No of Questions

## TOPIC WISE ANALYSIS

Unit & Topic Name	No of Questions	Total Marks	% Weightage
<b>CHEMISTRY</b>	<b>80</b>	<b>240</b>	<b>100.00%</b>
<b>ALDEHYDES &amp; KETONES</b>	<b>3</b>	<b>9</b>	<b>3.75%</b>
ALDEHYDES & KETONES	3	9	3.75%
<b>ALL BASIC CONCEPT OF ORGANIC CHEMISTRY-1</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
ALL BASIC CONCEPT OF ORGANIC CHEMISTRY-1	1	3	1.25%
<b>ALL BASIC CONCEPT OF ORGANIC CHEMISTRY-3</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
ALL BASIC CONCEPT OF ORGANIC CHEMISTRY-3	1	3	1.25%
<b>ALL BASIC CONCEPT OF ORGANIC CHEMISTRY-4</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
ALL BASIC CONCEPT OF ORGANIC CHEMISTRY-4	1	3	1.25%
<b>AROMATIC COMPOUNDS (BENZENE,ARYL HALIDE, PHENOL, AMINES &amp; DIAZONIUM SALT)</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
AROMATIC COMPOUNDS (BENZENE,ARYL HALIDE, PHENOL, AMINES & DIAZONIUM SALT)	2	6	2.50%
<b>ATOMIC STRUCTURE</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
ATOMIC STRUCTURE	2	6	2.50%
<b>BIOMOLECULE &amp; POLYMER</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
BIOMOLECULE & POLYMER	2	6	2.50%
<b>CARBOXYLIC ACIDS &amp; DERIVATIVES</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
CARBOXYLIC ACIDS & DERIVATIVES	2	6	2.50%
<b>CHEMICAL BONDING</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
CHEMICAL BONDING	1	3	1.25%
<b>CHEMICAL BONDING-2</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
CHEMICAL BONDING-2	1	3	1.25%
<b>CHEMICAL BONDING-4</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
CHEMICAL BONDING-4	1	3	1.25%
<b>CHEMICAL EQUILIBRIUM</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
CHEMICAL EQUILIBRIUM	2	6	2.50%
<b>CHEMICAL KINETICS</b>	<b>3</b>	<b>9</b>	<b>3.75%</b>
CHEMICAL KINETICS	3	9	3.75%
<b>CHEMISTRY IN EVERYDAY LIFE, PHYSICAL PROPERTIES &amp; POC</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
CHEMISTRY IN EVERYDAY LIFE, PHYSICAL PROPERTIES & POC	2	6	2.50%
<b>COORDINATION COMPOUND</b>	<b>5</b>	<b>15</b>	<b>6.25%</b>
COORDINATION COMPOUND	5	15	6.25%
<b>ELECTROCHEMISTRY</b>	<b>3</b>	<b>9</b>	<b>3.75%</b>
ELECTROCHEMISTRY	3	9	3.75%
<b>EQUIVALENT CONCEPT &amp; TITRATION</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>

EQUIVALENT CONCEPT & TITRATION	1	3	1.25%
<b>GASEOUS STATE</b>	<b>6</b>	<b>18</b>	<b>7.50%</b>
GASEOUS STATE	6	18	7.50%
<b>GOC-II(ACID BASE,REACTION INTERMEDIATE &amp; TAUTOMERISM)</b>	<b>3</b>	<b>9</b>	<b>3.75%</b>
GOC-II(ACID BASE,REACTION INTERMEDIATE & TAUTOMERISM)	3	9	3.75%
<b>GRIGNARD REAGENT</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
GRIGNARD REAGENT	1	3	1.25%
<b>INTRODUCTION TO REACTION MECHANISM</b>	<b>6</b>	<b>18</b>	<b>7.50%</b>
INTRODUCTION TO REACTION MECHANISM	6	18	7.50%
<b>IONIC EQUILIBRIUM</b>	<b>4</b>	<b>12</b>	<b>5.00%</b>
IONIC EQUILIBRIUM	4	12	5.00%
<b>IONIC EQUILIBRIUM-I</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
IONIC EQUILIBRIUM-I	1	3	1.25%
<b>METALLURGY</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
METALLURGY	2	6	2.50%
<b>MOL CONCEPT</b>	<b>6</b>	<b>18</b>	<b>7.50%</b>
MOL CONCEPT	6	18	7.50%
<b>P-BLOCK ELEMENTS</b>	<b>3</b>	<b>9</b>	<b>3.75%</b>
P-BLOCK ELEMENTS	3	9	3.75%
<b>PERIODIC TABLE PERIODICITY</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
PERIODIC TABLE PERIODICITY	1	3	1.25%
<b>REACTION MECHANISM</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
REACTION MECHANISM	2	6	2.50%
<b>S-BLOCK ELEMENTS</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
S-BLOCK ELEMENTS	1	3	1.25%
<b>SOLID STATE</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
SOLID STATE	2	6	2.50%
<b>SOLUTION COLLIGATIVE PROPERTIES</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
SOLUTION COLLIGATIVE PROPERTIES	2	6	2.50%
<b>STREOISOMERISM (GOCE-I)</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
STREOISOMERISM (GOCE-I)	1	3	1.25%
<b>SURFACE CHEMISTRY</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
SURFACE CHEMISTRY	1	3	1.25%
<b>THERMOCHEMISTRY</b>	<b>1</b>	<b>3</b>	<b>1.25%</b>
THERMOCHEMISTRY	1	3	1.25%
<b>THERMODYNAMICS-IIND LAW</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>
THERMODYNAMICS-IIND LAW	2	6	2.50%
<b>THERMODYNAMICS</b>	<b>2</b>	<b>6</b>	<b>2.50%</b>

THERMODYNAMICS	2	6	2.50%
<b>Grand Total</b>	<b>80</b>	<b>240</b>	<b>100.00%</b>

