ACKNOWLEDGEMENT

The Screening Assessment for Kusuma Excellence Fellowship Programme, is an activity done by the Kusuma Foundation (India) every year. An Assessment Framework was created based on which the tools and the grading rubrics were framed. These together, with a proper and careful administration of the Assessment, made the first step of the Fellowship Programme a success.

The Project was supported by ASER Centre and Kusuma Foundation (the Donor). We thank our colleagues from Daisy Dales School, East of Kailash who provided insight and expertise that greatly assisted the project.

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PREFACE

The Kusuma Foundation Screening Assessment Report is a detailed illustration about the complete process of assessment that is part of the "Screening Assessment for Kusuma Excellence Fellowship Programme".

The Report also shares with its readers the results of the Screening Assessment. It has been done in two forms:

A. As Overall Percentage achieved by the students of Grades X and XII who were assessed in the Screening Assessment from Hardoi, UP.
B. As a basic Psychometric Information that elaborates on the item-wise performance of all the students across subjects in both the grades, as well as, how the students performed on these items with regard to the various difficulty levels compared to the difficulty levels they were assumed to be laid.

The two forms of results serve different purposes. The former gives an overview of the performance of the students in general in both the grades. This further enables the segregation of students into different performance categories of *"above average", "average"* and *"below average"*. This result can be used by the Kusuma Foundation in short-listing students in next rounds of selection procedures for the Fellowship Programme. The latter on the other hand, holds importance from the research and remedial action aspects. It illustrates on how the tools have performed in general and the items in particular as opposed to how they were expected to perform.

Together the two forms of results make the report a holistic one as it pictures the *"assessment of learning"* by giving information on the overall performance of students in both the grades, and *"assessment for learning"* by generating some information about the student misconceptions.

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Executive Summary

The Screening Assessment for Kusuma Excellence Fellowship Programme is one of the important activities that the Kusuma Foundation undertakes every year. This project aims to provide scholarships to the fellows selected, based on their Board Examination marks and their performance in the Screening Assessment.

The Screening assessments was held for students who had cleared grade X and XII and are currently in grade XI or pursuing graduation respectively. A total of 717 students were found eligible for the programme and were assessed in the Screening Assessment. From grade X, 396 students appeared for the Screening Assessment and 189 students from them were scored above average in the assessment and shortlisted. The students performed better than expected as the mean percentage for grade X was 54.17% (ideally it is expected to be around 50%). In general the tool (Question paper) was found to be of medium difficulty level by the fellows. About 48% students performed above the average percentage.

In grade XII 321 students appeared for the Screening Assessment and their performance has been similar to that of grade X. From the 321, 8 students were disqualified from the Fellowship Programme as they had filled the OMR Answer Scripts wrongly. Furthermore 11 students were dropped from the detailed analysis as they were found to have not attempted a subject or two in tools of their respective streams. However, their results in the subjects they attempted have been shared in Annexure 4. The tools for grade XII was different from that of grade X with respect to the curriculum and the specific streams to which the students belonged to. Thus five tools were prepared for the five streams- Science (Biology group), Science (Math group), Agriculture, Commerce, Arts or Humanities and Vocational. All the grade XII students were assessed on 2 languages; English and Hindi and the other subjects were stream specific. A total of 162 students performed above the average percentage (w.r.t. their respective streams) and shortlisted. In each of the streams the students performed better than expected except in Arts and Vocational streams. The average percentages in the Screening assessment for each stream are as follows:

Table1. Average Percentages in each Stream (Grade XII)

Streams	Commerce	Science (Math Group)	Agriculture	Science (Biology Group)	Arts	Vocational
Average Percentages	63.41	59.21	56.71	55.03	46.54	40.86

Thus, 54%, 53%, 60%, 67%, 50% and 49% students secured above average percentage from Science(Biology group), Science(Math group), Agriculture, Commerce, Arts and Vocational streams respectively.

Introduction

About the organizations:

The Kusuma Foundation

The Kusuma Foundation was established in the year 2011 and it caters towards improving the educational opportunities and employment prospects for underprivileged children and young people who live in some of the poor and economically challenged districts in India.

The Screening Assessment is meant for a Fellowship Programme of Kusuma Foundation that provides beneficial financial assistance to students. The screening assessment enables the foundation to assess the learning levels of grade X and XII students who have passed their board examinations, from the Uttar Pradesh Board and also to identify their ability with respect to particular subjects. In this way the foundation will be able to select the most eligible students for the fellowship programme.

The ASER Centre

The ASER Centre has its roots in Pratham's work across urban and rural India to help children acquire

basic skills in reading and arithmetic. ASER Centre was established as an autonomous unit within the Pratham network in 2008 as a nonprofit organization. ASER Centre was founded on the firm belief that education is a fundamental right of every child and that no child should be deprived of the same simply because s/he does not have access to it or does not have the resources to realize her/his dreams. If development programs are to lead to desired outcomes, their impact on the ground needs to be regularly assessed. ASER Centre seeks to use simple yet rigorous methods to generate evidence on scale on the outcomes of social sector programs. It also aims to strengthen the link between evidence and action by building the capacity of individuals and institutions to design, conduct, and understand assessments that focus on key outcome indicators. Large sums of money are channeled into social sector programs: education, health, nutrition, and livelihoods, among others. Lack of information on how these investments translate into outcomes on the ground is a major barrier to evaluating their effectiveness and determining whether taxpayers' money is being well spent.

About the Project

The Partnership

The Kusuma Foundation works in Hardoi, a district in Uttar Pradesh to provide fellowships to selected students who perform excellently in their board examinations in grade X and XII respectively. In order, to screen out such students the foundation conducts a screening assessment based on grade X and XII curriculum of Uttar Pradesh. Thus, to make the assessment more effective and holistic the foundation entered into a partnership with ASER Centre that has been conducting assessments on learning levels of students for nearly 10 years now.

Purpose

The project has been titled as the "Screening Assessment for Kusuma Excellence Fellowship Programme" in Hardoi, Uttar Pradesh. The project intends to develop assessment framework also known as the Table of Specification and tools, to support the Kusuma Foundation team members for administering the assessment and for the generation of the results. The project aims to select the most eligible candidates who have passed grade X and XII (with 80% minimum as the board percentage) and have applied for the fellowship. The screening assessment would assess students on specific subjects and the tools thus generated would be based on the grade X and XII curriculum of Uttar Pradesh. Thus the assessment would act as one of the major components of a screening process to identify the eligible candidates for the fellowship.

Methodology

For the purpose of the Screening Assessment a team of five subject experts from two schools in Delhi were selected. They were teachers, who had an experience in teaching for 10 to 20 years. These teachers were experts in one of the 5 major subjects; English, Hindi, Math, Social Science and Science. They were each given their subject specific textbooks of the Uttar Pradesh syllabus. They did a textbook mapping of these textbooks based on which they prepared the Table of Specifications (TOS). The TOS helped them prepare the tools.

The project had a timeline of six months from March to August. The first two months were devoted to textbook mapping, preparation of the TOS and the designing of the tools. These tools were then reviewed by the ASER team.

Then the pilot was carried out. Pilot was the important step to the Screening Assessment. A pilot study reveals how the tool prepared has performed. It is recommended that for pilot, the group on which the process is to be done has similar characteristics to that of the group on which final administration would take place. For the purpose of pilot about 70-80 students were selected.

The similarity of these students with the screening assessment applicants at Hardoi were that both the groups came under the Uttar Pradesh school board, the group at Allahabad consisted of students who had mostly secured 70% and above in their board examination which is similar to the applicants to the screening assessment.

The KF staff were introduced to the TOSs and the tools and they were trained on how to administer the tool, the process of data entry based on the elaborate grading rubrics prepared by the ASER team and the experts. For pilot, students belonging to the nearby government schools from classes 11th (10th passed) and 1st year graduates (12th passed) were arranged. The pilot data was shared by the KF team with ASER, who in turn analyzed the data based on which the tools were reviewed and tweaked. The reviewed tools (final tools) were shared with the KF for its eventual administration on August 2, 2015.

Selection of Students for Assessment: The applicants have to meet the following eligibility criteria before applying for the fellowship programme:

1. The applicants should be from Hardoi district of Uttar Pradesh.
2. They should have graduated from government or government aided schools.

3. Applicants from post-matric (post grade 10th) batch should have secured 70% or above in their matriculation examination of 2014-15
4. Applicants belonging to the post-intermediate (post grade 12th) batch, should have secured 70% or above in their intermediate examinations of 2014-15, if they belonged to the Science (applicable to with Math and without Math groups), Agriculture or Commerce. If they belonged to either the Arts or the Vocational stream, they should have secured 60% and above in the same.
5. The gross family income of the applicants, for the financial year 2014 should not exceed INR 1,00,000/-.

The selection procedure for the fellows began from July 2015 and will continue till October 2015. The disbursal of the fellowship for post-intermediate applicants will commence after they have taken admission for graduation. The selection procedure involves the following:

1. Submission of the duly completed application forms for the fellowship along with valid Permanent Residence Certificate and valid proofs of income and board exam scores as mentioned in the official notification of the fellowship programme.
2. The Screening Assessment designed by ASER Centre
3. Home visits basis the results of the Screening Assessment, to the residences of the applicants, by Kusuma Foundation appointed team to validate the income and eligibility of the applicants.

Brief Description of Tool

The tools were prepared keeping the assessment framework in mind which in turn was developed from the Uttar Pradesh state curriculum for grades X and XII. The numbers of grade X students are more than that of grade XII such that it is in the ratio of 80:20. All students of grade X have attempted all items across subjects that are uniform for all of them. In case of grade XII, students are

spread across different streams, so the number of students per stream is less. The uniformity of time as a crucial factor has been duly considered for the number of items.

Each subject tool for grade X has 20 items and each subject tool for grade XII has 20 items except in the English tool which has only 10 items. This was done in order to overcome operational difficulties and to keep the total duration of assessment for both the grades equal. The items have been pitched at various difficulty levels as per the Bloom's Taxonomy. Thus each tool for both the grades would have easy, medium and difficult items in the ratio of 3:4:3.

The items in each subject were largely multiple choices in nature. However, the English and Hindi tools have two items per subject for both the grades, which assess the reading and comprehension levels of the students.

For the students with a non-math background, belonging to grade XII it was decided to take up a new tool of Mental Ability. This tool assessed a student's verbal and reasoning abilities and its difficulty level was moderated in accordance with his grade.

Based on the pilot observations further additions were made to the initial plan of the project. It was observed during pilot that there are students who could not be categorized under any of the usual streams of grade XII, viz, Science, Commerce and Arts. They belonged to the stream- Agriculture, wherein their core subjects were Agronomy, Animal Husbandry and Botany besides the two languages; English and Hindi. Assessing students of this stream with the Science tool for grade XII, did not justify the purpose of the assessment. Thus a tool for Agriculture was introduced, that contained items specific to the stream. Likewise, for students belonging to the Commerce stream a tool was prepared to include items from Accounts and Business studies and Economics.

A grading rubric was prepared for each subject that defined the possible answers to a particular item and the score a child would obtain for the options he opted for each of the item across subjects and grades. A weighted grading schema was prepared accordingly which catered to the progression in the difficulty levels of the items in each tool. Furthermore, a provision for partial grading was also made in the rubrics for items under the category of medium and difficult levels as well the open ended items in English and Hindi. The tools were eventually provided in a compiled format grade wise and stream wise.

The students were expected to attempt the compiled assessment tool within 3 hours. They were also provided with an additional 15 minutes to read and understand the questions at the beginning of the test. Another 30 minutes was added to the total assessment duration, to deliver instructions on how to attempt the paper and in particular how to answer in the OMR answer script.

Main Assessment Framework

The Assessment Framework was designed such that total assessment duration for both the grades remain equal and to make the assessment convenient from the operational and management point of view. The following tables are snapshots of the assessment frameworks for grades X and XII.

Table2. Assessment Framework for Grade X

S. No.	Subject	Total Items	Item Typology	Total Duration for the Assessment
1	English	20	18 MCIs and 2 Open ended (Reading Comprehension)	**3 Hours 30 Minutes =** 3 hours + 15 Minutes Reading Time + 15 Minutes Instructions

2	Hindi	20	18 MCIs and 2 Open ended (Reading Comprehension)	
3	Math	20	All MCIs	
4	Science	20	All MCIs	
5	Social Science	20	All MCIs	
Total	5 Subjects	100 Items	96 MCIs + 4 Open Ended (reading Comprehension)	

Table3. Assessment Framework for Grade XII

S. No.	Stream	Subjects/Stream Items/Stream Item Typology/Stream		Duration of the Assessment/ Stream
1	**Science (Math Group)**	Math 20 20 MCIs Science 20 20 MCIs	English 10 8 MCIs + 2 Open Ended (Reading Comprehension) Hindi 20 18 MCIs + 2 Open ended (Reading + Comprehension)	**3 Hours 30 Minutes** = 3 Hours + 15 Minutes Reading time + 15 Minutes Instructions
2	**Science (Non-Math Group)**	Mental Ability 20 20 MCIs Science 20 20 MCIs	English 10 8 MCIs + 2 Open Ended (Reading Comprehension) Hindi 20 18 MCIs + 2 Open ended (Reading + Comprehension)	**3 Hours 30 Minutes** = 3 Hours + 15 Minutes Reading time + 15 Minutes Instructions
3	**Agriculture**	Mental Ability 20 20 MCIs Agriculture 20 20 MCIs	English 10 8 MCIs + 2 Open Ended (Reading Comprehension) Hindi 20 18 MCIs + 2 Open ended (Reading + Comprehension)	**3 Hours 30 Minutes** = 3 Hours + 15 Minutes Reading time + 15 Minutes Instructions
4	**Commerce**	Mental Ability 20 20 MCIs Commerce 20 20 MCIs	English 10 8 MCIs + 2 Open Ended (Reading Comprehension) Hindi 20 18 MCIs + 2 Open ended (Reading + Comprehension)	**3 Hours 30 Minutes** = 3 Hours + 15 Minutes Reading time + 15 Minutes Instructions

5	**Arts/Humanities**	Mental Ability 20 20 MCIs Social Science 20 20 MCIs	English 10 8 MCIs + 2 Open Ended (Reading Comprehension) Hindi 20 18 MCIs + 2 Open ended (Reading + Comprehension)	**3 Hours 30 Minutes** = 3 Hours + 15 Minutes Reading time + 15 Minutes Instructions
Total 5 Streams 4 Subjects/	Stream		70/ Stream 66 MCIs + 4 Open Ended (Reading Comprehension)/ Stream	**3 Hours 30 Minutes** = 3 Hours + 15 Minutes Reading time + 15 Minutes Instructions (per Stream)

Results and Test Statistics - Grade X

The following table gives an overview of the sample of Grade X:

Table4. Sample Description (Grade X)

Over-all Sample Description

No. of Students of Grade X		Mean Percentage	Std. Dev.	Lowest Percentage	Highest Percentage
	396	54.17	7.89	31	77
Subjects Assessed	**English**	**Hindi**	**Math**	**Science**	**Social Science**

Assessment Analysis - The assessment was analyzed at the Test level and Item level qualitatively as well as quantitatively. Also an overall result section that gives the list of students who were the top performers has been given in Annexure 3.

Test Level Analysis

Information as Reliability and Validity are test level functions in any assessment. Apart from this general information a scale statistics would be shared.

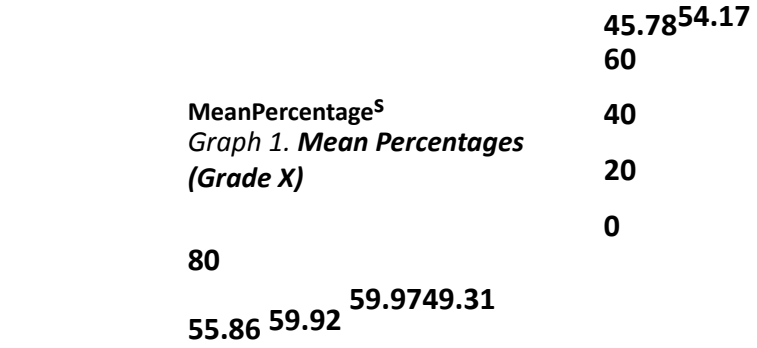
Scale statistics

It can be seen in the following table that the KF Screening assessment for grade Xth consisted of 20 items. The max marks were 40 in each of the papers.

Table5. Scale Statistics (Grade X)

Subject	No. of Students	Mean	Std. Dev.	Lowest Percentage	Highest Percentage
English	396	55.86	12.26	17.5	92.5

Hindi	396	59.92	8.87	22.5	85
Math	396	59.97	19.02	0	97.5
Science	396	49.31	11.29	15	80
Social Science	396	45.78	10.77	5	72.5



Graph 1. ***Mean Percentages (Grade X)***

Reliability of the assessment

Grade X Overall

In very simple terms it means that the reliable test items generate similar results, without much significant difference of the mean scores, every time administered on the same population without any intervention made on the learning levels. Tests that have been designed for same purpose with same kind of items of same difficulty will also generate similar results. There are various methods to check reliability of an assessment. Usually values above .70 are considered to be good reliability or validity values in educational assessment. It is often seen that reliability and validity of assessments go hand in hand moreover they are either both high or both low. There are certain statistical methods which are a measure of both reliability as well as validity.

Split Half correlation - If the whole test is divided into two halves and then we find correlation it is split half method to find correlation. Split half can be done by simply dividing the paper into two halves or selecting even-odd items to have a uniform distribution of item difficulty and marks weight-age. The average correlation, basically tells whether the items are consistent with each other within the defined frame of construct and whether people attempting these items will perform similarly if the test items were more or less in numbers.

The reliability coefficient was calculated for each of the five subjects in grade X th. The reliability coefficient for math is 0.77 at 95% confidence interval (0.74 – 0.80) and SEM 3.57. Similar values have been observed for the other four subjects that range between 0.7 to 0.8 at 95% confidence interval and SEM between 2.5 to 3.5.

Internal consistency based reliability and validity – This can be checked by calculating Point Bi-serial or internal consistency check. This is a measure of reliability per item and also validity of the construct. It is also often referred to as item total correlation. It basically tells whether performance in one item is consistent with performance in rest of the items. Are all the items consistent with each other within the defined frame of the construct? Here we can see all items are positively correlated

with in their test frame

Item total correlation – This correlation is the regressive correlation done between the scoring data of each of the items situated in different columns and the total raw score in the last column for all the students on all the items. In this concept a higher correlation means that performance of all the students on one item is predictive of their performance on remaining items or the test. A zero

correlation means performance on that item does not predict or impact performance on the remaining items or the test. Here we see that all items are positively correlated with the total barring just one item in math test in which student performance has been different. Items that were found to have a correlation less than 0.5 were initially highlighted but on doing further analysis it was found that removing that item would deteriorate the quality of the test by lowering the consistency. Hence all these items together make a valid assessment.

Table6. Item Total Correlation (Grade X)

Item Total Correlation					
Items	English	Hindi	Math	Science	Social Science
1	0.33	0.23	-0.01	0.26	0.21
2	0.36	0.06	0.54	0.36	0.28
3	0.35	0.24	0.54	0.23	0.15
4	0.18	0.25	0.60	0.27	0.19
5	0.32	0.22	0.46	0.22	0.23
6	0.32	0.19	0.37	0.21	0.11
7	0.22	0.34	0.51	0.35	0.20
8	0.33	0.20	0.50	0.36	0.27
9	0.28	0.27	0.53	0.17	0.29
10	0.31	0.32	0.42	0.34	0.28
11	0.35	0.15	0.24	0.35	0.25
12	0.35	0.18	0.50	0.11	0.28
13	0.11	0.23	0.50	0.30	0.14
14	0.28	0.30	0.59	0.27	0.21
15	0.34	0.39	0.55	0.32	0.30
16	0.42	0.18	0.42	0.34	0.31
17	0.50	0.36	0.39	0.37	0.32
18	0.17	0.32	0.49	0.30	0.37
19	0.36	0.34	0.43	0.30	0.25
20	0.19	0.31	0.36	0.20	0.26

Validity of the assessment

Validity of a test is whether the test is fulfilling its purpose for which it was made or not. Is the test measuring the construct appropriately or not, how it looks on face, is the content and difficulty level appropriate, has the construct been mapped against suitable curriculum or framework, It is checked by qualitative analysis as, Is the test made appropriately according to the table of specification, Is there a Blooms taxonomy match in terms of cognitive levels and their spread, item difficulty and its spread across paper, Qualitative analysis is done by subject matter experts who provide normative guidelines (age and grade appropriateness, language, intent etc).

Face and content validity **-** Validity of a tool can be achieved by a non-statistical analysis of the tool. Face Validity and Content Validity serves this purpose. Face validity as the term suggests, by the mere look at the tool, a subject matter expert (SME) could judge if the tool measures the criterion of

the assessable construct or not. Content validity on the other hand, is an in-depth analysis of the items by an SME. Content validity involves the systematic examination of the test content to determine whether it covers a representative sample of the domain to be measured. It speaks about the degree to which the content of the test matches the content of the domain associated with the construct. A test has content validity built into it by the careful selection of the items. Items are chosen so that they comply with the test specification which is drawn up by a thorough examination of the subject domain.

The testing assessments were prepared by ASER Centre after analyzing the textbooks and other relevant documents as curriculum and syllabus. All assessments were thoroughly piloted with children of relevant grades with similar characteristics as the target group. Face validity was achieved by the subject experts. Their suggestions were incorporated to improve the assessments and better contextualize them for our target group of children. For each domain a range of test items in terms of difficulty (easy, medium and difficult) and types (MCQ and non-MCQ) were included by thoroughly mapping the items with the syllabus.

Representation Validity - Representation validity, also known as translation validity, is about the extent to which an abstract theoretical construct can be turned into a specific practical test. The experts were able to review the items and comment on whether the items cover a representative sample of the domain. After detailed mapping of textbooks a detailed assessment framework was developed for this study. This assessment framework attempts to measure each domain in a number of ways and at varying difficulties. Based on this framework test items were created which were reviewed by subject experts and modified based on the outcomes from pilot field visit. Based on the objective of testing this framework can be used in future to construct more test items measuring performance on specific domains.

Item Level Analysis

Item analysis is usually done for checking the performance of item. This includes item difficulty and Distracter analysis of the MCI for misconceptions.

Item difficulty

The term item difficulty or p value expresses the proportion or percentage of students who answered the item correctly. Item difficulty can range from 0.0 (none of the students answered the item correctly) to 1.0 (all of the students answered the item correctly). Item difficulty is also termed as Item facility.

Table7. Item Difficulty Index

0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Nobody is able to solve this item correctly		20%	30%	40%	50 percent could solve this item	60%	70%	80%	Everybody is able to solve this item correctly	
Very Difficult item		Difficult	Difficult	Medium	Medium	Medium	Easy	Easy	Very easy item	

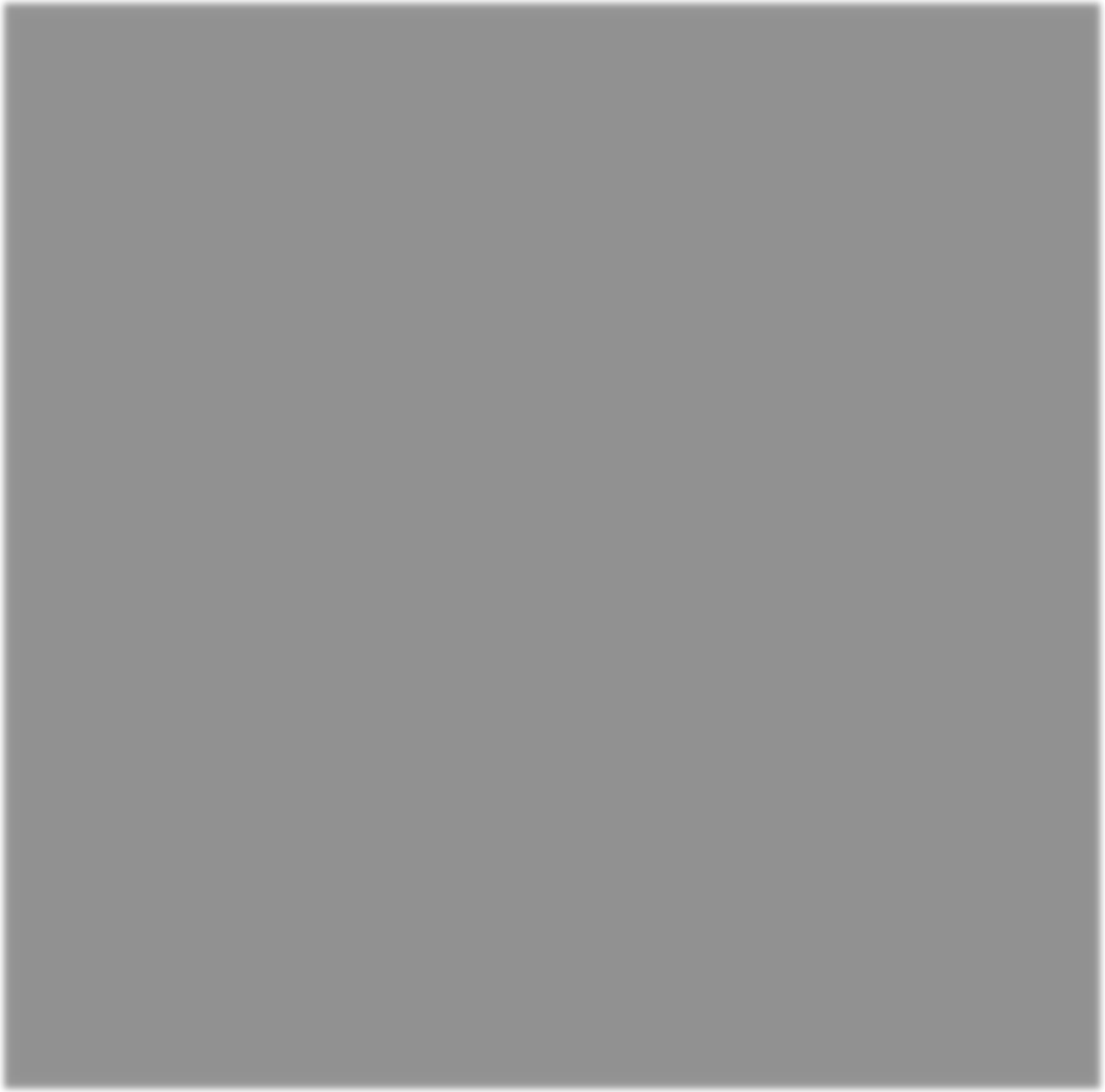
Table8. Subject-wise p-values (Grade X)

Items	English	Hindi	Math	Science	Social Science
1	0.71	0.54	0.14	0.77	0.36
2	0.7	0.15	0.64	0.57	0.39
3	0.49	0.53	0.59	0.46	0.7
4	0.22	0.81	0.52	0.62	0.46
5	0.63	0.23	0.65	0.63	0.66
6	0.83	0.6	0.45	0.29	0.22
7	0.73	0.82	0.61	0.44	0.31
8	0.42	0.79	0.75	0.49	0.48
9	0.39	0.6	0.61	0.43	0.43
10	0.58	0.85	0.47	0.45	0.57
11	0.71	0.27	0.54	0.42	0.46
12	0.41	0.5	0.63	0.14	0.37
13	0.34	0.23	0.63	0.64	0.44
14	0.39	0.48	0.72	0.37	0.71
15	0.73	0.82	0.69	0.74	0.47
16	0.89	0.58	0.5	0.5	0.55
17	0.63	0.89	0.64	0.57	0.44
18	0.44	0.61	0.63	0.48	0.52
19	0.49	0.45	0.63	0.56	0.32
20	0.4	0.62	0.57	0.34	0.55
Easy Items (%)	35	30	10	10	10
Medium Items (%)	40	50	85	70	60
Difficult Items (%)	25	20	5	20	30
Total	100	100	100	100	100

Table9. Actual Difficulty levels of items versus expected Difficulty of items (Grade X)

Bloom's Taxonomy of educational objectives (Levels)	Difficulty Levels	Expected Number of items as per TOS	Actual Number of items as per p values				
			English	Hindi	Math	Science	Social Science
Knowledge & Understanding	Easy	6	7	6	2	2	2
Analyze & Apply	Medium	8	8	10	17	14	12
Evaluate & Create	Difficult	6	5	4	1	4	6

Graph 2. ***Actual Difficulty levels of items versus expected Difficulty of items (Grade X)***



It can be observed from the table that there is a difference in the way items were expected to function and the way students have responded to them. In Math, Science and social science most of easy items were shifted down to the medium category and not considered to be so easy. While English and Hindi were exceptions in this regard. It is also visible that the difficult MCI in Math, Science and Hindi were not considered to be really difficult. There might be an effect of the guess factor working here as well that inflates the p values and shows lesser number of items in the difficult category. Overall students have found the reading and comprehension items to be average to difficult as expected.

Distracter analysis

The N represents those children who have marked only one option out of the possible four MCI answers a b c d i.e. those children who have not left the question blank or marked outside the box anywhere or marked multiple ticks. The reason for collecting and analyzing this N is based on the fact that a good MCI gives 25% probability to all the four options to be selected. Thus in distracter analysis if any option gets more than 25% opportunity the option needs to be seen whether it is a

strong distracter or does it reveal some typical misconception of the student.

Table10. Distractor Analysis (Grade X)

Distractor Analysis

English

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Option "A"	14.14	3.03	26.26	21.97	7.32	6.82	70.20	23.23	25.76	18.94	63.64	30.05	28.28	14.14	28.28	6.57	45.45	29.29		
Option "B"	5.05	14.90	12.63	18.18	15.66	2.53	18.94	22.22	30.81	9.09	13.89	18.18	17.42	27.02	8.08	1.01	22.47	26.77		
Option "C"	71.72	7.32	9.60	20.45	12.63	6.57	4.80	20.96	23.74	22.47	6.57	25.51	30.05	23.48	52.53	1.26	7.58	12.37		
Option "D"	6.06	70.45	48.99	35.10	62.63	82.83	3.28	31.82	17.42	46.72	15.15	23.23	20.20	30.81	7.83	89.14	22.73	27.27		

Hindi

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Option "A"	10.86	5.56	9.34	6.82	31.57	59.85	2.02	6.82	56.82	12.88	25.00	74.75	17.17	13.89	69.95	17.68	84.60	25.00		
Option "B"	4.04	64.65	52.78	8.84	10.10	10.35	10.61	4.55	4.29	78.79	47.47	6.57	24.24	10.35	5.05	53.54	5.30	27.02		
Option "C"	53.79	15.15	13.64	81.06	33.08	13.89	80.56	70.45	5.81	6.06	14.90	12.63	44.95	23.23	6.31	4.29	5.81	5.05		
Option "D"	29.80	11.87	20.96	0.51	22.73	13.38	5.05	16.92	31.31	1.52	10.61	3.79	11.11	50.51	17.17	21.72	3.54	41.92		

Math

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	52.53	5.56	29.55	8.33	64.65	25.00	47.98	8.59	18.94	12.88	9.85	54.55	17.17	66.92	21.97	32.32	19.44	18.18	10.61	9.60
Option "B"	15.91	64.14	5.05	26.26	10.61	10.86	26.26	72.98	11.87	14.90	45.96	16.16	54.29	10.10	13.38	20.96	43.94	48.23	27.27	36.62
Option "C"	14.39	5.81	59.34	51.52	11.36	13.64	9.34	10.61	55.56	40.15	23.23	12.12	15.91	11.62	51.77	26.52	20.71	17.93	41.92	17.68
Option "D"	10.10	22.22	3.28	8.84	8.08	44.70	12.12	4.55	10.35	25.51	15.91	12.37	7.07	7.83	8.59	14.65	10.86	10.10	15.15	30.30

Science

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	5.05	56.82	18.94	62.12	19.19	29.80	38.89	19.70	9.60	26.01	30.05	49.24	20.20	26.52	17.68	22.73	50.25	18.43	24.75	47.22
Option "B"	10.61	25.25	22.98	14.90	63.13	29.04	10.35	3.03	26.26	33.59	12.37	10.86	60.10	21.21	23.48	26.01	10.35	38.38	20.71	28.54
Option "C"	77.02	7.58	45.96	13.13	7.32	20.96	9.85	38.89	23.99	23.74	27.02	5.30	9.09	21.46	30.81	22.22	19.19	26.52	33.59	10.61

Option "D"	5.56	7.32	10.10	7.07	7.58	15.91	38.64	36.87	37.63	13.13	27.27	31.57	7.07	28.28	24.75	25.51	17.17	14.14	18.69	11.62

Social Science																				
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Option "A"	24.49	47.98	7.58	46.46	65.66	21.72	35.61	13.89	36.36	8.84	18.43	28.54	25.25	15.91	18.69	30.30	26.77	35.35	12.63	49.75
Option "B"	35.86	4.55	3.28	11.87	9.85	15.40	16.67	26.26	30.56	14.39	21.72	16.16	30.56	28.79	29.04	27.02	40.15	22.73	10.35	17.68
Option "C"	16.92	38.38	14.65	6.57	10.10	52.02	18.69	43.43	17.93	21.97	22.98	37.12	36.87	23.99	25.00	21.72	20.71	25.76	27.27	15.15
Option "D"	19.19	4.55	69.70	32.07	11.36	9.34	25.51	14.90	13.64	52.27	34.60	15.91	6.06	29.29	24.49	17.17	10.35	13.13	46.46	15.91

Index	
Equal or Above 0.5	Very Strong Distractor
Equal or Above 0.35	Strong Distractor
Equal or Above 0.20	Distractor
A/B/C/D	Correct Answer
Easy	
Medium	
Difficult	

Table11. Subject-wise Statistics (Grade X)

Subjects	English	Hindi	Math	Science	Social Science
Total N	**396**	**396**	**396**	**396**	**396**
Students in the above average category	**189**	**189**	**189**	**189**	**189**
Spread of marks and percentage in above average category	**16 (40%) to 37 (92.5%)**	**16 (40%) to 34 (85%)**	**9 (22.5%) to 39 (97.5%)**	**12 (30%) to 32 (80%)**	**11 (27.5%) to 29 (72.5%)**
Students in the average category	**11**	**11**	**11**	**11**	**11**
Spread of marks and percentage in average category	**14 (35%) to 26 (65%)**	**20 (50%) to 30 (75%)**	**16 (40%) to 34 (85%)**	**13 (32.5%) to 25 (62.5%)**	**12 (30%) to 24 (60%)**

Students in the Below average category	**196**	**196**	**196**	**196**	**196**
Spread of marks and percentage in Below average category	**7 (17.5%) to 34 (85%)**	**9 (22.5%) to 30 (75)**	**0 (0%) to 33 (82.5%)**	**6 (15%) to 28 (70%)**	**2 (5%) to 27 (67.5%)**

Conclusive Remarks (Grade X)

The students of grade X found the assessment tool of medium difficulty level and performed better than expected. This is clear from the overall mean percentage for grade X being at around 53%.This in turn also substantiates that the tool was largely of medium difficulty level. The stand deviations for all subjects and overall for grade X is above 8% implying to a wide range in the marks obtained by the students. The proportion of students in the above average and below average categories ranges between 47 to 49%.

As expected the students found the reading-comprehension items of English and Hindi as medium to difficult. In Math, Science and Social Science most of the easy items were found to be of medium level by the students.

Results and Test Statistics - Grade XII

The following table gives an overview of the sample of Grade XII:

Table12.Overall Sample Description (Grade XII)

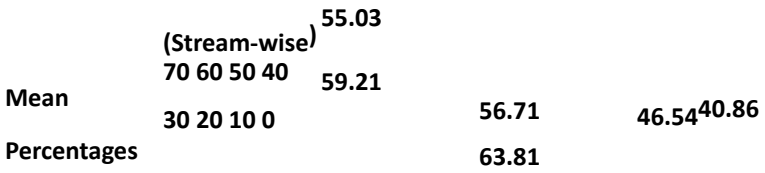
No. of students of Grade XII	Mean Percentage	Std. Dev.	Lowest Percentage	Highest Percentage
302	50.51	10.59	7.86	77.14

A detailed stream-wise sample description is tabulated below:

Table 13. Stream-wise Description (Grade XII)

Stream	Subjects Assessed	No. of Students (per Stream)	Mean	Lowest Percentage	Highest Percentage
Vocational	English, Hindi, Mental Ability & Social Science	40 (13.25%)	40.86	7.86	53.57
Arts/	English, Hindi, Mental Ability & Social Science	136 (45.03%)	46.54	21.43	67.14
Humanities	English, Hindi, Mental Ability & Science	41 (13.58%)	55.03	39.29	72.86
Science (Bio)	English, Hindi, Mental Ability & Agriculture	5 (1.66%)	56.71	47.86	65
Agriculture	English, Hindi, Mental Ability & Science	77 (25.50%)	59.21	35.71	77.14
Science (Math)	English, Hindi, Math & Science	3 (0.99%)	63.81	60.71	66.43
Commerce	English, Hindi, Mental Ability & Commerce				
Note: A total of 321 students of Grade XII appeared for the examination. Of these 8 students had wrongly filled the OMR sheet, owing to which they were disqualified from the Assessment.					

Graph 3. ***Average Percentages in Each Stream (Grade XII)***



Assessment Analysis - As in the case of grade X a Test level and Item level analysis was done for grade XII. Stream-wise top performers have been enlisted in Annexure 3.

Test Analysis

Test level analysis implies to the analysis done to check the reliability and validity of the tools. Besides this, a scale statistics gives the general information regarding the assessment.

Scale Statistics

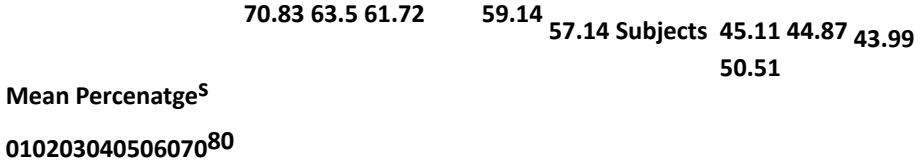
In the table given below shows that the KF Screening Assessment for grade XII consisted of 20 items except in English, which had 10 items. The maximum marks for each paper was 40. In English the maximum marks was 20, due to lesser number of questions.

Table14. Scale Statistics

Subject-wise Overalls

Subjects	Obs	Max Marks	Mean	Std. Dev.	Lowest Percentage	Highest Percentage
English	262	20	44.87	16.32	0	85
Hindi	262	40	59.14	10.28	27.5	90
Math	77	40	61.72	14.83	27.5	92.5
Mental Ability	185	40	43.99	15.17	2.5	82.5
Commerce	3	40	70.83	8.78	62.5	80
Science	118	40	57.14	9.93	32.5	80
Arts/Humanities	136	40	45.11	9.70	12.5	70
Agriculture	5	40	63.50	5.76	57.5	72.5

Graph 4. ***Mean Percentages (Grade XII)***



Reliability of the Assessment

A tool becomes reliable if each item in the tool generates similar results, without significant differences in the mean score, each time it is administered on the same population, without any intervention made on the learning levels. Likewise, a tool designed for the same purpose and consists of same kind items pitched at the same difficulty levels will also generate similar results. A tool that gets a reliability coefficient of 0.70 or above is ranked as a very reliable and valid tool in

educational assessments. Reliability and validity can be checked for the overall tool as well within the tool. For grade XII, the Split –Half Correlations were done to check the overall reliability of the tool and the Point Bi-serial correlations were done to check for internal consistency in the tool.

Split Half Correlation - The Spilt Half Method of correlation assesses the reliability and the validity of the tool. This method of correlation is done by correlating the total marks obtained in all even items with that secured in all the odd items in the tool. This method divides the tool into two halves such that it uniformly distributes the item difficulty and marks weight-age.

The reliability coefficient was calculated for all the subjects of grade XII. The coefficient values ranged between 0.65 and 0.8 at 95% confidence interval and SEMs ranging between 2.3 and 3.8.

Internal Consistency based Reliability and Validity- A Point Bi-serial also known as Item Total Correlations checks internal consistency of the tool. The Point Bi-serial tells whether the performance in one item is consistent with the performance in the rest of the items. Item Total Correlation is a regressive correlation done between the scores in each item with the total score in the entire tool. As stated above a higher correlation implies performance of all students in one item is predictive of their performance in all the other items. While, a zero correlation implies that performance in that item is not predictive of the performance in all the others.

The table given below lists the Item Total Correlations for all subjects. Clearly, all items are positively correlated with the total of their respective subjects. Items with a correlation less than 0.5 were put through further analysis and it was found that removing these items lowered the consistency and thus deteriorated the quality of the tool. Hence all these items were retained and these together with the other items made the tools for grade XII valid.

Table15. Item Total Correlation (Grade XII)

Item Total Correlations						
Items	English	Hindi	Math	Mental Ability	Science	Social Science
1	0.21	0.17	0.36	0.31	0.19	0.18
2	0.05	0.17	0.31	0.07	0.09	0.32
3	0.20	0.23	0.32	0.29	0.27	0.08
4	0.48	0.29	0.37	0.23	0.28	0.18
5	0.56	0.13	0.43	0.38	0.12	0.16
6	0.45	0.19	0.46	0.15	0.03	0.02
7	0.31	0.27	0.61	0.35	0.15	0.07
8	0.41	0.05	0.49	0.16	0.36	0.16
9	0.54	0.31	0.26	0.39	0.40	0.11
10	0.56	0.28	0.32	0.41	0.18	0.15
11		0.45	0.48	0.48	0.16	0.21

12		0.36	-0.24	0.51	0.32	0.32
13		0.33	0.60	0.18	0.33	0.49
14		0.30	0.47	0.33	0.21	0.26
15		0.34	0.42	0.19	0.35	0.34
16		0.29	0.21	0.52	0.42	0.25
17		0.19	0.48	0.51	0.14	0.28
18		0.17	0.22	0.49	0.19	0.39
19		0.45	0.37	0.48	0.34	0.42
20		0.55	0.45	0.37	0.43	0.18

Validity of the assessment

Validity of a test is whether the test is fulfilling its purpose for which it was made or not. A qualitative analysis is done to check if the test measures the construct appropriately, how it looks on face, if the content and difficulty level is appropriate, if the construct has been mapped against suitable curriculum or framework, if the test is made appropriately according to the table of specification, if the items match the Blooms Taxonomy in terms of cognitive levels, the difficulty levels and its spread across the papers.

Face and Content Validity- A qualitative validity analysis can be achieved by face validity and content validity. Face validity reveals if the tool overall looks valid in terms of the assessable construct. While, content validity determines if the content of the test matches the content of the domain associated with the construct. Both are done by the SMEs.

The testing assessments were prepared by ASER Centre after analyzing the textbooks and other relevant documents as curriculum and syllabus. All assessments were thoroughly piloted with children of relevant grades with similar characteristics as the target group. The suggestions of the SMEs were incorporated to improve the assessments and better contextualize them for our target

group of children. For each domain a range of test items in terms of difficulty (easy, medium and difficult) and types (MCQ and non-MCQ) were included by thoroughly mapping the items with the syllabus.

Representation Validity - Representation validity, as stated above, is the extent to which an abstract theoretical construct can be turned into a specific practical test. As for grade X, the experts reviewed the items of grade XII and assessed if they cover a representative sample of the domain. A detailed assessment framework was developed such that it measured each domain in a number of ways and at varying difficulties. Based on this framework test items were created which were reviewed by subject experts and modified based on the outcomes from pilot field visit. Based on the objective of testing this framework can be used in future to construct more test items measuring performance on specific domains.

Item Level Analysis

Item level analysis implies to the assessment of the performance of the items. This is done by Item difficulty or Item facility analysis and the distracter analysis.

Item Difficulty

Item difficulty represented by the p-values shows the proportion of students who attempted the items correctly. The p-values range between 0 and 1. Thus, the closer the p-value is to 1 the easier the item is. The p-values for each item across the different subjects of grade XII has been tabulated below:

Table16. Item Difficulty Index

0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Nobody is able to solve this item correctly		20%	30%	40%	50 percent could solve this item	60%	70%	80%	Everybody is able to solve this item correctly	
Very Difficult item		Difficult	Difficult	Medium	Medium	Medium	Easy	Easy	Very easy item	

Table17. Subject-wise p-Values (Grade XII)

Items	English	Hindi	Math	Mental Ability	Science	Agriculture	Commerce	Social Science
1	0.39	0.35	0.69	0.22	0.14	1	1	0.42
2	0.2	0.81	0.69	0.11	0.41	0.6	1	0.21
3	0.32	0.9	0.83	0.55	0.47	0.8	0.33	0.56
4	0.67	0.53	0.68	0.62	0.31	0.4	0.33	0.44
5	0.72	0.32	0.55	0.14	0.67	0.2	0.33	0.35
6	0.23	0.4	0.84	0.15	0.22	0.4	0.67	0.21
7	0.32	0.41	0.59	0.38	0.41	0.4	0.67	0.48
8	0.59	0.33	0.73	0.25	0.64	1	0.67	0.56
9	0.38	0.41	0.53	0.55	0.91	1	1	0.34
10	0.41	0.41	0.56	0.53	0.32	1	1	0.36
11		0.59	0.45	0.57	0.42	0	0.5	0.57
12		0.83	0.3	0.42	0.77	0.4	0.67	0.43
13		0.56	0.73	0.4	0.28	0.5	1	0.5
14		0.93	0.75	0.47	0.73	1	0.67	0.38
15		0.77	0.49	0.51	0.5	0.66	0.88	0.44
16		0.7	0.33	0.44	0.63	0.13	0.55	0.48

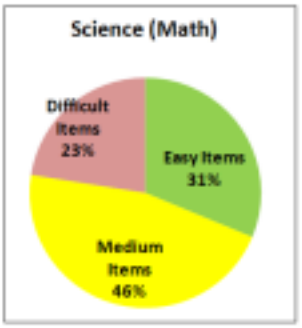
17		0.57	0.86	0.5	0.97	0.13	0.88	0.39
18		0.83	0.54	0.5	0.46	0.92	0.77	0.49
19		0.42	0.7	0.4	0.62	0.99	0.55	0.65
20		0.46	0.76	0.51	0.67	0.92	0.44	0.4
Easy (%)	10	35	40	0	20	45	40	0
Medium (%)	30	50	50	70	55	35	45	65
Difficult (%)	60	15	10	30	25	20	15	35
Total	100	100	100	100	100	100	100	100

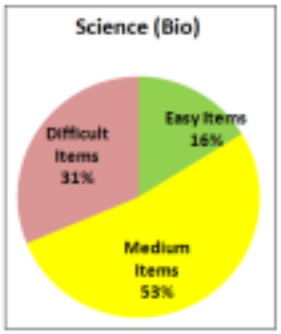
Table18. Actual Difficulty levels of items versus expected Difficulty of items (Grade XII)

Bloom's Taxonomy of educational objectives (Levels)	Difficulty Levels	Expected Number of items as per TOS	Actual Number of items as per p values							
			English	Hindi	Math	Mental Ability	Science	Agriculture	Commerce	Social Science
Knowledge & Understanding	**Easy**	6 (3 for English)	1	7	8	0	4	9	8	0
Analyze & Apply	**Medium**	8 (4 for English)	3	10	10	14	11	7	9	13
Evaluate & Create	**Difficult**	6 (3 for English)	6	3	2	6	5	4	3	7

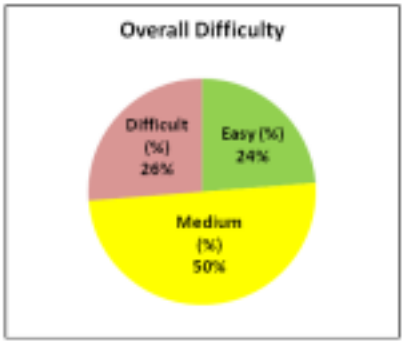
Graph 5. ***Actual Difficulty levels of items versus expected Difficulty of items***

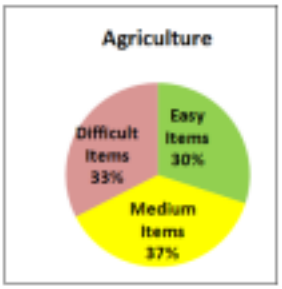
(Grade XII- Overall and Across Streams)


Science (Math)
Difficult Items 23%
Easy Items 31%
Medium Items 46%

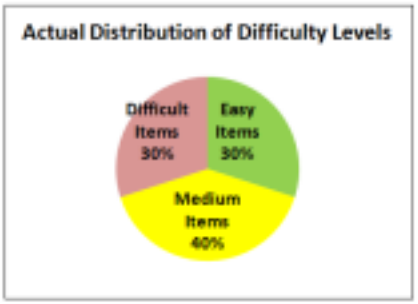

Science (Bio)
Difficult Items 31%
Easy Items 16%
Medium Items 53%


Commerce
Difficult Items 24%
Easy Items 34%
Medium Items 42%


Overall Difficulty
Difficult (%) 26%
Easy (%) 24%
Medium (%) 50%


Agriculture
Difficult Items 33%
Easy Items 30%
Medium Items 37%


Arts
Difficult Items 46%
Easy Items 9%
Medium Items 45%


Actual Distribution of Difficulty Levels
Difficult Items 30%
Easy Items 30%
Medium Items 40%

From the tables it is observable that there are differences in the way items were expected to function and the way students have responded to them. In Mental Ability and Social Science all the easy items were shifted to the medium category, while in Hindi, Math and Commerce the difficult items were pushed up to medium category and some items also got pushed to easy category. With regard to the items assessing reading comprehension in English and Hindi, there is inclination towards the difficult category, as expected.

Distracter Analysis

The N represents those children who have marked only one option out of the possible four MCI answers a b c d i.e. those children who have not left the question blank or marked outside the box anywhere or marked multiple ticks. The reason for collecting and analyzing this N is based on the fact that a good MCI gives 25% probability to all the four options to be selected. Thus in distracter analysis if any option gets more than 25% opportunity the option needs to be seen whether it is a strong distracter or does it reveal some typical misconception of the student.

Table19. Distractor Analysis (Grade XII)

Distractor Analysis

English								
Items	1	2	3	4	5	6	7	8
Option" A"	38.93	19.85	28.24	3.44	63.74	14.12	14.12	11.07
Option "B"	31.68	43.89	19.47	17.94	8.78	4.96	17.94	49.62
Otipn "C"	9.54	13.74	32.06	15.27	9.92	17.56	27.86	27.48
Option "D"	16.41	18.70	16.03	59.54	16.03	59.54	37.79	9.92

Hindi																		
Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Option "A"	53.82	11.45	90.46	3.82	32.06	34.73	37.79	14.89	12.21	5.34	18.32	9.54	5.73	7.25	41.98	33.97	25.19	2.67
Option "B"	5.73	80.53	5.34	35.11	35.11	6.49	9.16	27.86	22.14	48.47	14.12	82.82	24.43	0.76	50.76	6.11	32.06	77.10
Option "C"	4.58	3.44	0.76	53.44	6.11	40.46	29.01	25.95	35.11	5.73	13.74	0.76	63.36	89.69	1.15	2.29	8.78	17.56
Option "D"	34.85	3.79	1.52	6.82	24.62	17.05	23.11	27.65	28.03	37.88	49.24	6.44	4.92	1.89	5.68	54.17	32.20	1.52

Math																				
Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	25.97	11.69	83.12	6.49	19.48	9.09	57.14	7.79	51.95	12.99	27.27	36.36	15.58	6.49	25.97	2.60	2.60	6.49	53.25	9.09
Option "B"	68.83	10.39	12.99	18.18	54.55	84.42	36.36	12.99	10.39	3.90	35.06	33.77	64.94	68.83	31.17	36.36	10.39	40.26	22.08	5.19
Option "C"	3.90	6.49	1.30	67.53	14.29	1.30	3.90	66.23	27.27	54.55	20.78	15.58	7.79	11.69	1.30	20.78	6.49	29.87	10.39	70.13
Option "D"	0.00	68.83	2.60	3.90	5.19	2.60	1.30	9.09	6.49	23.38	11.69	11.69	11.69	10.39	40.26	31.17	77.92	16.88	9.09	14.29

Mental Ability																				
Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	22.16	48.65	21.62	7.03	58.38	8.11	30.81	52.97	40.54	11.89	10.81	23.24	21.08	32.97	27.03	11.89	27.57	22.16	18.38	16.22
Option "B"	9.19	21.62	54.05	61.08	20.54	30.81	32.43	18.92	28.11	16.22	16.22	30.27	14.59	28.11	23.24	31.89	27.57	25.95	22.16	26.49
Option "C"	22.70	13.51	7.03	12.97	4.32	14.59	12.97	11.35	10.27	47.03	21.62	30.81	30.81	12.43	18.38	29.73	11.89	27.03	18.38	31.35
Option "D"	37.30	11.35	13.51	15.68	14.05	42.70	22.16	12.97	16.22	18.92	45.41	10.27	28.65	23.78	27.03	21.08	28.65	18.38	35.14	21.62

Commerce	

Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	0.00	0.00	33.33	33.33	0.00	66.67	33.33	0.00	0.00	100.00	0.00	33.33	100	66.67	66.67	33.33	66.67	0.00	66.67	33.33
Option "B"	0.00	100	0.00	33.33	0.00	33.33	0.00	33.33	0.00	0.00	33.33	66.67	0.00	0.00	33.33	0.00	33.33	0.00	33.33	66.67

Option "C"
100
0.00
66.67
33.33
33.33
0.00
0.00
0.00
100
0.00
33.33
0.00
0.00
0.00
0.00
33.33
0.00
33.33
0.00
0.00

Option "D"	0.00	0.00	0.00	0.00	66.67	0.00	66.67	66.67	0.00	0.00	33.33	0.00	0.00	33.33	0.00	33.33	0.00	66.67	0.00	0.00
Science																				
Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	12.71	40.68	24.58	17.80	66.95	22.03	24.58	11.02	88.98	31.36	6.78	70.34	50.00	18.64	26.27	50.85	1.69	22.88	23.73	20.34
Option "B"	13.56	16.10	6.78	30.51	16.10	45.76	28.81	3.39	3.39	52.54	25.42	7.63	36.44	70.34	32.20	15.25	95.76	22.03	38.14	57.63
Option "C"	21.19	29.66	47.46	31.36	10.17	18.64	33.90	42.37	4.24	8.47	21.19	7.63	3.39	2.54	26.27	9.32	2.54	26.27	11.02	13.56
Option "D"	47.46	10.17	20.34	14.41	5.08	11.86	10.17	42.37	1.69	5.93	42.37	13.56	6.78	8.47	8.47	21.19	0.00	24.58	26.27	5.08
Agriculture																				
Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	0.00	60.00	20.00	40.00	0.00	40.00	40.00	0.00	100	20.00	80.00	40.00	20.00	100	60.00	80.00	40.00	20.00	0.00	40.00
Option "B"	0.00	20.00	0.00	20.00	20.00	0.00	60.00	0.00	0.00	80.00	20.00	40.00	40.00	0.00	20.00	0.00	60.00	80.00	100	0.00
Option "C"	0.00	0.00	0.00	0.00	60.00	60.00	0.00	100	0.00	0.00	0.00	20.00	0.00	0.00	20.00	20.00	0.00	0.00	0.00	60.00
Option "D"	100	20.00	80.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Social Science																				

Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Option "A"	18.38	23.53	16.18	23.53	13.97	38.24	61.03	44.85	38.97	15.44	35.29	20.59	49.26	34.56	58.82	17.65	19.85	15.44	13.24	16.18
Option "B"	31.62	51.47	8.82	20.59	34.56	12.50	9.56	13.97	24.26	18.38	12.50	19.12	2.94	31.62	18.38	25.00	16.18	25.74	16.18	46.32
Option "C"	6.62	21.32	55.88	44.12	36.03	21.32	9.56	18.38	19.85	28.68	5.15	26.47	2.21	21.32	12.50	16.91	20.59	12.50	21.32	2.21
Option "D"	41.91	2.21	16.91	11.03	13.24	26.47	17.65	21.32	14.71	35.29	43.38	32.35	41.91	7.35	4.41	38.24	42.65	41.91	46.32	33.82

Index	
Equal or Above 0.5	Very Strong Distractor
Equal or Above 0.35	Strong Distractor
Equal or Above 0.20	Distractor
A/B/C/D	Correct Answer
Easy	
Medium	
Difficult	

Table20. Stream-wise Statistics (Grade XII)

Table20.I Science (Bio)				
Subjects	English	Hindi	Mental Ability	Science
Total N	**41**	**41**	**41**	**41**
Students in the above average category	**22**	**22**	**22**	**22**
Spread of marks and percentage in above average category	**6 (30%) to 16 (80)%**	**19 (47.5%) to 36 (90%)**	**17 (42.5%) to 38 (82.5%)**	**18 (45%) to 32 (80%)**
Students in the Below average category	**19**	**19**	**19**	**19**
Spread of marks and percentage in Below average category	**1 (5%) to 12 (60%)**	**14 (35%) to 27 (67.5%)**	**10 (25%) to 26 (65%)**	**14 (35%) to 27 (67.5)**

Table20.II Science (Math)

Subjects	English	Hindi	Math	Science
Total N	**77**	**77**	**77**	**77**
Students in the above average category	**43**	**43**	**43**	**43**
Spread of marks and percentage in above average category	**5 (25%) to 17 (85%)**	**20 (50%) to 33 (82.5%)**	**19 (47.5%) to 37 (92.5%)**	**15 (37.5%) to 29 (72.5%)**
Students in the Below average category	**34**	**34**	**34**	**34**
Spread of marks and percentage in Below average category	**4 (20%) to 13 (65%)**	**15 (37.5%) to 28 (70%)**	**11 (27.5%) to 31 (77.5%)**	**13 (32.5%) to 27 (67.5%)**

Table20.III Commerce

Subjects	English	Hindi	Mental Ability	Commerce
Total N	**3**	**3**	**3**	**3**
Students in the above average category	**2**	**2**	**2**	**2**
Spread of marks and percentage in above average category	**11 (55%) to 17 (85%)**	**29 (72.5%)**	**22(55%)**	**25 (62.5%)**
Students in the Below average category	**1**	**1**	**1**	**1**
Spread of marks and percentage in Below average category	**7 (35%)**	**27 (67.5%)**	**19 (47.5%)**	**32 (80)**

Table20.IV Agriculture

Subjects	English	Hindi	Mental Ability	Social Science
Total N	**5**	**5**	**5**	**5**
Students in the above average category	**3**	**3**	**3**	**3**

Spread of marks and percentage in above average category	**7 (35%) to 9 (45%)**	**21 (52.5%) to 25 (62.5%)**	**26 (65%) to 32 (80%)**	**24 (60%) to 29 (72.5%)**
Students in the Below average category	**2**	**2**	**2**	**2**
Spread of marks and percentage in Below average category	**4 (20%) to 6 (30%)**	**18 (45%) to 21 (52.5)**	**20 (50%) to 22 (55%)**	**23 (57.5%) to 25 (62.5%)**

Table20.V Arts/Humanities

Subjects	English	Hindi	Mental Ability	Agriculture
Total N	**136**	**136**	**136**	**136**
Students in the above average category	**68**	**68**	**68**	**68**
Spread of marks and percentage in above average category	**3 (15%) to 15 (75%)**	**19 (47.5%) to 34 (85%)**	**8 (20%) to 31 (77.5%)**	**11 (27.5%) to 28 (70%)**
Students in the Below average category	**68**	**68**	**68**	**68**
Spread of marks and percentage in Below average category	**0 (0%) to 14 (70%)**	**11 (27.5%) to 26 (65%)**	**1 (2.5%) to 24 (60%)**	**5 (12.5%) to 23 (57.5%)**

Conclusive Remarks (Grade XII)

Overall the students have performed better than expected as can be seen from the overall mean percentage for grade XII. A stream-wise look at the performance however, shows that the students belonging to the Science (Biology group), Science (Math group), Commerce and Agriculture have performed better than expected, with the average percentages being above 55% but students belonging to the Arts and Vocational streams have performed a little below the expectation.

In each subject the mean percentage lies between 40% and 65%. The standard deviations in all the subjects are observed to be above 5% implying that the range is reasonably wide. The students found the items at medium difficulty level which is substantiated by the mean percentages in each subject.

The students found the reading-comprehension items in the English and the Hindi tools difficult, as expected. However in the Math and Agriculture tools the students found most of the difficult items, as medium level items. In Mental Ability, Social Science and English the students found all or most of

the easy items at a medium difficulty level.

Key Findings

A total of 717 students appeared in the Screening Assessment. 396 of them belonged to grade X and 321 belonged to grade XII. In grade XII 8 students were found to have wrongly filled their OMR answer scripts owing to which they have been considered as disqualified students from the Fellowship Programme. 11 students of the remaining had not attempted a subject or two in the assessment owing to which they have been dropped from the detailed statistical analysis. However, their results in the subjects they attempted have been shared in Annexure 4.

The overall analysis of the tools of grade X and XII reveal that the tools were reliable and valid and the students have more or less performed as expected.

In grade X the average percentage were about 54% and about 47% students performed above average. In general the grade X tool was found to be of average difficulty. This is substantiated by the fact that 61% of the items overall in grade X were found to be of medium difficulty level versus the expected proportion of 40%.

In Hindi, Math, Science and Social Science 12.5% and 2.5% items respectively were found to show severe distracters owing to lack of conceptual understandings.

In grade XII the average percentage were 50.51% implying that the students performed more or less as expected. A stream-wise analysis shows a different story; students belonging to the Arts and Vocational streams have performed below expectation. 162 students of the 302 have been shortlisted for further selection procedures involved in the Fellowship Programme. Thus from each

stream more than 50% of the students have qualified the screening assessment except in the Vocational stream, where 49% have been shortlisted. As in grade X, the students of grade XII found the assessment of medium difficulty level owing to 50% of the items being found at medium difficulty level as opposed to the expected proportion of 40%.

2.5% items in Math, 5% items each in Mental Ability and Science, 7.5% items in Social Science, 10% items each in English and Hindi, 15% items in Commerce and 17.5% items in Agriculture were found to show severe distracters arising due to lack of conceptual understanding among a large number of the students.

ANNEXURE 1

TABLE OF SPECIFICATIONS

Grade X

ENGLISH							
S.No.	Content	Congnitive Level			Item Typology	Marks/Item	Assessable Comptencies
		Knowledge and Understanding	Apply and Analyse	Create and Evaluate			
1	Antonyms (Words opposite in meaning)	1 (Q1)			MCI	1	The student has to recall and use the knowledge of antonyms
2	Antonyms (Words opposite in meaning)	1 (Q2)			MCI	1	The student has to recall and use the knowledge of antonyms
3	Vocabulary (Verbal ability)	1 (Q3)			MCI	1	The student has to use the knowledge of vocabulary to choose the appropriate option
4	Synonyms (words with similar meaning)	1 (Q4.)			MCI	1	The student has to recall and use the knowledge of synonyms
5	Passage (excerpt)	1 (Q5)			MCI	1	The student has to understand the excerpt and recall the appropriate answer

6	Passage (excerpt)	1 (Q6)			MCI	1	The student has to understand the excerpt and recall the appropriate answer
7	Passage (excerpt)		1 (Q7)		MCI	2	The student has to understand and analyse the passage and apply his knowledge to choose the appropriate answer
8	Passage (excerpt)		1 (Q8)		MCI	2	The student has to understand and analyse the passage and apply his knowledge to choose the appropriate answer
9	Grammar (Singular/Plural)		1 (Q9)		MCI	2	The student has to analyse the sentence and apply the knowledge and useage of singular/plural words
10	Grammar (Tenses)		1 (Q10)		MCI	2	The student has to analyse the sentence and apply the knowledge of tenses to choose the appropriate option
11	Grammar (Reported Speech)		1 (Q11)		MCI	2	The student has to analyse the sentence and apply the knowledge of reported speech to choose the appropriate option
12	Grammar (Reported Speech)		1 (Q12)		MCI	2	The student has to analyse the sentence and apply the knowledge of reported speech to choose the appropriate option
13	Grammar (Sentence Completion)		1 (Q13)		MCI	2	The student has to read and analyse the sentence and choose the appropriate option to make it a meaningful sentence
14	Grammar (Sentence interpretation)		1 (Q14)		MCI	2	The student has to read and analyse the sentence and apply his understanding to choose the appropriate option
15	Reading Comprehension (seen passage)			1 (Q15)	MCI	3	The student has to read and understand the passage and deduce the meaning of the given word in the context of the

passage

16	Reading Comprehension (seen passage)			1 (Q16)	MCI	3	The student has to read and understand the passage and deduce the appropriate answer
17	Reading Comprehension (seen passage)			1 (Q17)	MCI	3	The student has to read and understand the passage and deduce the appropriate answer
18	Reading Comprehension (unseen passage)			1 (Q18)	MCI	3	The student has to read and understand the passage and deduce the opposite of the given word in the context of the passage

19	Reading Comprehension (unseen passage)			1 (Q19)	Open ended	3	The student has to read and understand the passage to create an answer in his own words
20	Reading Comprehension (unseen passage)			1 (Q20)	Open ended	3	The student has to read and understand the passage to create an answer in his own words
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

HINDI							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Spell-Check	1 (Q1)			MCI	1	The student has to recall the correct spelling
2	Spell-Check	1 (Q2)			MCI	1	The student has to recall the correct spelling
3	Antonym	1 (Q3)			MCI	1	The student has to identify the opposite of the given word
4	Synonym	1 (Q4)			MCI	1	The student has to recall the synonym of the given word
5	Grammar	1 (Q5)			MCI	1	The student has to recall what a word is called when used in a sentence
6	Books and authors	1 (Q6)			MCI	1	The student has to recall the author's name
7	Gender		1 (Q7)		MCI	2	The student has to analyse the given example based on which he has to choose the appropriate option
8	One word for a phrase		1 (Q8)		MCI	2	The student has to analyse the given example based on which he has to identify the word that best defines the word and choose the appropriate option
9	Suffix- Prefix		1 (Q9)		MCI	2	The student has to analyse the word and break it into prefix and main word

(opposite) 1 (Q10) MCI 2
The student has to analyse the given sentence and the word underlined and apply his understanding to choose the appropriate word

Fill - up
10

11	Suffix-Prefix		1 (Q11)		MCI	2	The student has to analyse the given word and apply the knowledge of suffix prefix to choose the appropriate option
12	Suffix-Prefix		1 (Q12)		MCI	2	The student has to analyse the given word and apply the knowledge of suffix prefix to choose the appropriate option
13	Style of writing poetry		1 (Q13)		MCI	2	The student has to apply the knowledge of the various styles of poetry writing and choose the appropriate option
14	Compound Words		1 (Q14)		MCI	2	The student has to apply the knowledge of compound words to choose the appropriate option
15	One word for a phrase			1 (Q15)	MCI	3	The student has to evaluate the given word based on which he has to identify the word that best defines the phrase and choose the appropriate option
16	One word for a phrase			1 (Q16)	MCI	3	The student has to evaluate the given word based on which he has to identify the word that best defines the phrase and choose the appropriate option
17	Idioms			1 (Q17)	MCI	3	The student has to understand and evaluate the idiom and identify the option that best explains its meaning
18	Idioms			1 (Q18)	MCI	3	The student has to understand and evaluate the idiom and identify the option that best explains its meaning
19	Reading Comprehension			1 (Q19)	Open Ended	3	The student has to read and understand the passage and answer the question in his own words
20	Reading Comprehension			1 (Q20)	Open Ended	3	The student has to read and understand the passage and answer the question in his own words
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

MATH							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Statistics (median)	1 (Q1)			MCI	1	The student has to recall the formula for median and use to solve and choose the appropriate option

2	Highest Common Factor (H.C.F.)	1 (Q2)			MCI	1	The student has to recall the method to solve for H.C.F. to choose the appropriate option

Highest Common Factor 3

(H.C.F.) 1 (Q3) MCI 1

The student has to recall the method to solve for H.C.F. to choose the appropriate option

4	Statictics (mean)	1 (Q4)			MCI	1	The student has to recall formula of mean to solve and choose the appropriate option
5	Statictics (mean)	1 (Q5)			MCI	1	The student has to recall formula of mean to solve and choose the appropriate option
6	Circle	1 (Q6)			MCI	1	The student has to recall the formula of a circle and use it to solv and choose the appropriate answer
7	Circle		1 (Q7)		MCI	2	The student has to recall the formula of a circle and use it to solve and choose the appropriate answer
8	Algebra		1 (Q8)		MCI	2	The student has to analyse the given algeraic problem and solve to choose the appropriate option
9	Algebra		1 (Q9)		MCI	2	The student has to analyse the given algeraic problem and solve to choose the appropriate option
10	Circles and Tangents		1 (Q10)		MCI	2	The student has to analyse the diagram and apply the knowledge of tangents to solve and choose the appropriate option
11	Circles and Tangents		1 (Q11)		MCI	2	The student has to analyse the diagram and apply the knowledge of tangents to solve and choose the appropriate option
12	Straight Lines		1 (Q12)		MCI	2	The student has to analyse the question and apply the formula of straight lines to solve
13	Straight Lines		1 (Q13)		MCI	2	The student has to analyse the question and apply the formula of straight lines to solve
14	Trignometry		1 (Q14)		MCI	2	The student has to analyse the given diagram and apply the knowledge of trignometry to solve
15	Trignometry			1 (Q15)	MCI	3	The student has to analyse the diagram, and use the pythagoras theorem + trignometric rules to solve
16	Volume and Surface Area			1 (Q16)	MCI	3	The student has to evaluate and solve using the formula of a cone and cylinder

17	Volume and Surface Area			1 (Q17)	MCI	3	The student has to evaluate and solve using the formula of a cone and cylinder
18	Statistics			1 (Q18)	MCI	3	The student has to evaluate and solve based on the formula to calculate mean
19	Profit/Loss and Discounts			1 (Q19)	MCI	3	The student has to evaluate and solve using the formulae of profit/loss 5 and discount
20	Profit/Loss and Discounts			1 (Q20)	MCI	3	The student has to evaluate and solve using the formulae of profit/loss 5 and discount
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

SCIENCE							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Electricity	1 (Q1)			MCI	1	The student has to recall the standard measurement unit of each of the elementsin electricity
2	Carbon and its Compunds	1 (Q2)			MCI	1	The student has to recall which organic compound is also called marsh gas
3	Carbon and its Compunds	1 (Q3)			MCI	1	The student has to recall the basic structure of the carbon family
4	Metal and Alloys	1 (Q4)			MCI	1	The student has to recall the metal contents in the alloy brass
5	Water	1 (Q5)			MCI	1	The student has to recall the nature of different forms of water
6	The Endocrine Glands and their hormones	1 (Q6)			MCI	1	The student has to recall the protein make of insulin
7	Refraction		1 (Q7)		MCI	2	The student has to apply the knowledge of refraction and thus choose the appropriate option that best explains the refractive index formula
8	Micro organism		1 (Q8)		MCI	2	The student has to apply the knowledge of the diiferent kinds of microbes and the diseases they casuse to choose the appropriate answer

9	Chemical Reactivity		1 (Q9)		MCI	2	The student has to analyse the chemical compunds involved and assess their order in the reactivity series
10	Photosynthesis		1 (Q10)		MCI	2	The student has to analyse the various steps and entitites involved in photosynthesis
11	Carbon and its compounds (process of saponification)		1 (Q11)		MCI	2	The student has to analyse the given situation and apply the process of saponification to choose the appropriate option
12	Sturcture of a Seed		1 (Q12)		MCI	2	The student has to apply the knowledge of the structure of a seed
13	Telescopes		1 (Q13)		MCI	2	The student has to analyse the question and apply the lens formula of a telescope to choose the appropriate option
14	Chemical Reactions		1 (Q14)		MCI	2	The student has to apply the knowledge of the order the elements in the reactivity series and the results of each reaction and the forms in which they are produced
15	Human Reproductio n			1 (Q15)	MCI	3	The student has to recall the various organs and gland involved in the process of human reproduction and apply that knowledge to choose the appropriate hormone secreted by the given gland

16 Human Eyes 1 (Q16) MCI 3 The student has to evaluate the structure of the human eye and deduce from it functions of rodes and cones and thus, choose the appropriate option

17	Evolution			1 (Q17)	MCI	3	The student has to apply the knowledge of homologous and analogous organs and the theory of evolution to choose the appropriate option
18	Elements and Compouns			1 (Q18)	MCI	3	The student has to evaluate the nature of metals and identify which of the give options depict those elements that exist freely
19	Digestion			1 (Q19)	MCI	3	The student has to evaluate the entire process of digestion and recall the exact order of the process
20	Magnetism			1 (Q20)	MCI	3	The student has to identify the standar unit of measurement of magnetic flux
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

SOCIAL SCIENCE							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Battle of Plassey	1 (Q1)			MCI	1	The student has to recall the year in which the battle was fought
2	The United Nations	1 (Q2)			MCI	1	The student has to recall where the headquarters of the U.N. are located
3	Forests (India)	1 (Q3)			MCI	1	The student has to recall the popularly found forests in the country
4	Unification of Germany	1 (Q4)			MCI	1	The student has to recall the main icon involved in the unification of Germany
5	European Revolutions	1 (Q5)			MCI	1	The student has to recall the main cause of the revolution in England
6	Weather/ Climates	1 (Q6)			MCI	1	The student has to recall the reason for rains during winters in Tamil Nadu
7	Nationalisation of Banks (India)		1 (Q7)		MCI	2	The student has to apply the knowledge of the various years in which banks were nationalised and in the particula the year RBI was nationalised
8	The stucture and functioning of the Lok Sabha		1 (Q8)		MCI	2	The student has to assess the structure of the Lok Sabha to choose the appropriate answer
9	The Five Year Plans		1 (Q9)		MCI	2	The student has to analyse the various years (time durations in some cases) of the FYPs to choose the appropriate option

10	Indian National Movement	1 (Q10)			MCI	2	The student has to recall the various aspects of Indian National movement and analyse them to reason out the setting up of the Hunter Committee
11	Carnatic Wars		1 (Q11)		MCI	2	The student has to analyse the Carnatic Wars and the major cause of the 1st war
12	Unification of Italy		1 (Q12)		MCI	2	The student has to analyse the various events involved in the unification of Italy and apply the knowledge to choose the appropriate option

13	Rivers and Dams (India)		1(Q13)		MCI	2	The student analyse the various area that the given dam is affecting and then identify those which have had a positive effect
14	Carnatic Wars		1 (Q14)		MCI	2	The student has to analyse the Carnatic Wars and the most important event of the 2nd war
15	SAARC Nations			1 (Q15)	MCI	3	The student has to evaluate the SAARC meeting and the various locations they were held at to choose the appropriate option
16	Rivers and Dams (India)			1 (Q16)	MCI	3	The student analyse the various area that the given dam is affecting and then identify those which have had a positive effect
17	Weather/ Climates			1 (Q17)	MCI	3	The student has to evaluate the various reasons for monsoon outbursts in U.P. and identify the most valid reason
18	Indian Judiciary			1 (Q18)	MCI	3	The student has to evaluate the functioning of the Judicairy in the country as well as the newly formed Lok Adalat and its key features
19	Indian National Movement			1 (Q19)	MCI	3	The student has to evaluate the key features of the Nehru Report
20	Indian Geography (Different Wind Steams)			1 (Q20)	MCI	3	The student has to evaluate the different windsteams flowing across the Coromandal Coast and identify the one that causes rains in that area

Total Items	6	8	6
% of Items	30	40	30
Difficulty Levels	Easy	Medium	Difficult

Grade XII

ENGLISH							
S.No.	Content	Congnitive Level			Item Typology	Marks/Item	Assessable Comptencies
		Knowledge and Understanding	Apply and Analyse	Create and Evaluate			
1	Antonyms (words opposite in meaning)	1 (Q1)			MCI	1	The student has to recall the antonym of the given word
2	Synonym (words with similar meaning)	1 (Q2)			MCI	1	The student has to recall the synonym of the given word
3	Spell-check	1 (Q3)			MCI	1	The student has to recall the correct spelling and choose the appropriate option

4	Grammar (Reported Speech)		1 (Q4)		MCI	2	The student has to analyse the sentence and apply the knowledge of reported speech to choose the appropriate option
5	Grammar (Reported Speech)		1 (Q5)		MCI	2	The student has to analyse the sentence and apply the knowledge of reported speech to choose the appropriate option
6	Grammar (Articles)		1 (Q6)		MCI	2	The student has to read and understand the sentence and apply the knowledge of Articles (use of an/a/the) and choose the appropriate option
7	Grammar (Idioms)		1 (Q7)		MCI	2	The student has to analyse the given idiom and apply the use of it in various contexts and hence its meaning in general
8	Grammar (Noun)			1 (Q8)	MCI	3	The student has to evaluate the given verb and convert it to a noun by choosing the appropriate option
9	Reading Comprehension			1 (Q9)	MCI	3	The student has to read and understand the given passage and answer the question in his own words
10	Reading Comprehension			1 (10)	MCI	3	The student has to read and understand the given passage and answer the question in his own words
Total Items		3	4	3			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

HINDI							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Hindi Gadya ka Vikas	1 (Q1)			MCI	1	The student has to recall the chapter to choose the appropriate option
2	Hindi Gadya ka Vikas	1 (Q2)			MCI	1	The student has to recall the chapter to choose the appropriate option
3	Spell-Check	1 (Q3)			MCI	1	The student has to recall the correct spelling to choose the appropriate

							answer
4	Antonyms	1 (Q4)			MCI	1	The student has to recall the antonym of the given word and choose the appropriate option
5	Synonym	1 (Q5)			MCI	1	The student has to recall the synonyms of the given word and choose the appropriate option
6	Synonym	1 (Q6)			MCI	1	The student has to recall the synonyms of the given word and choose the appropriate option
7	Spell-Check based on given example		1 (Q7)		MCI	2	The student has to analyse the example and understand the question to choose the appropriate option
8	Grammar Sangya(Noun)		1 (Q8)		MCI	2	The student has to analyse the sentence and identify the form of noun to choose the appropriate answer
9	Grammar Kaarak (Prepositions)		1 (Q9)		MCI	2	The student has to analyse the sentence and identify the preposition form
10	Grammar Samaas (Compunds)		1 (Q10)		MCI	2	The student has to analyse the question and apply the knowledge of compunds to identify the main element of the compound and the compound form
11	Grammar		1 (Q11)		MCI	2	The student has to analyse the example and understand the question to choose the appropriate option
12	Poetry		1 (Q12)		MCI	2	The student has to understand the poem and apply it to choose the appropriate option
13	Poetry		1 (Q13)		MCI	2	The student has to understand the poem and apply it to choose the appropriate option
14	Grammar-Anek shabdon ke liye ek shabd (One word for a phrase/sentence)		1 (Q14)		MCI	2	The student has to analyse the phrase and apply the knowledge of grammar to identify the appropriate option

ek shabd (One word for a 15				phrase/sentence) 1 (Q15)	MCI	3	The student has to analyse the phrase and apply the knowledge of grammar to identify the appropriate option
16	Grammar Sentences			1 (Q16)	MCI	3	The student has to apply the knowledge of different forms of sentence and choose the appropriate option
17	Grammar Sentences			1 (Q17)	MCI	3	The student has to analyse the sentence/s and create a mixed sentence by choosing the appropiate option
18	Idioms			1 (Q18)	MCI	3	The student has analyse the given idiom and identify its usage and thus, choose the option with the appropriate meaning
19	Reading Comprehension			1 (Q19)	Open Ended	3	The student has to read and understand the passage and create the answer in his own words
20	Reading Comprehension			1 (Q20)	Open Ended	3	The student has to read and understand the passage and create the answer in his own words
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

MATH							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Irrational / Rational Numbers	1 (Q1)			MCI	1	The student has to use the knowledge of Rational/Irrational Numbers to choose the appropriate option
2	Straight Lines	1 (Q2)			MCI	1	The student has to recall and use the formula of slope of a line and choose the appropriate option
3	Probability	1 (Q3)			MCI	1	The student has to use the knowledge of Probability to choose the appropriate optiion
4	Series	1 (Q4)			MCI	1	The student has to use the knowledge of Series to choose the appropriate option
5	Statistics (Mean)	1 (Q5)			MCI	1	The student has to recalland use the formula of mean(average) in statistics and choose the

							appropriate option
6	Differenti atio n	1 (Q6)			MCI	1	The student has to use simple differentiation methods to choose the appropriate option

The student has to analyse the question and apply the knowledge of the formula of circle and hence find the value of its diameter

7 Circles 1 (Q7) MCI2

8	3-D Geometry		1 (Q8)		MCI	2	The student has to analyse the question and apply the formula of a straight line in 3-D to choose the appropriate option
9	Sets (Venn Diagrams)		1 (Q9)		MCI	2	The has to analyse the question and based on the knowledge of Sets and venn-diagrams choose the appropriate option
10	Integration		1 (Q10)		MCI	2	The student has to analyse the question and apply various methods of integration to solve and choose the appropriate option
11	Logical Reasoning		1 (Q11)		MCI	2	The student has to analyse the diagram in the question and apply logic to choose the appropriate option
12	Logical Reasoning		1 (Q12)		MCI	2	The student has to analyse the diagram in the question and apply logic to choose the appropriate option
13	Logical Reasoning		1 (Q13)		MCI	2	The student has to analyse the question and use logic to choose the appropriate option
14	Reasoning - Blood Relations		1 (Q14)		MCI	2	The student has to apply the knowledge of blood relation and logic to choose the appropriate option
15	Percentage			1 (Q15)	MCI	3	The student has to solve the question to choose the correct option
16	Percentage			1 (Q16)	MCI	3	The has to solve the question using the knowledge of percentages and word-problem solving skills to choose the correct option
17	Algebra			1 (Q17)	MCI	3	The student has to evaluate the question and identify the algebraic identity to solve and choose the appropriate option
18	Logical Reasoning- Direction + Distance			1 (Q18)	MCI	3	The student has to evaluate the question and apply the knowledge of directions and distance to solve and choose the appropriate option

19	Simple Interest			1 (Q19)	MCI	3	The student has to understand the question and evaluate it basis the formula for simple interest and choose the appropriate option
20	Logical Reasoning			1 (Q20)	MCI	3	The student has to evaluate the question and based on logic identify the pattern and thus choose the appropriate option
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

MENTAL ABILITY							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Logical Reasoning	1 (Q1)			MCI	1	The student has to use logic to choose the appropriate option
2	Logical Reasoning	1 (Q2)			MCI	1	The student has to use logic to choose the appropriate option
3	Reasoning - Blood Relations	1 (Q3)			MCI	1	The student has to understand the question and use logic of blood relations to choose the appropriate option
4	Reasoning - Blood Relations	1 (Q4)			MCI	1	The student has to understand the question and use logic of blood relations to choose the appropriate option
5	Percentages	1 (Q5)			MCI	1	The child has to use the formula of percentage to solve and choose the appropriate option
6	Percentages	1(Q6)			MCI	1	The child has to use the formula of percentage to solve and choose the appropriate option
7	Algebra		1 (Q7)		MCI	2	The student has to analyse the question and identify the algebraic identity and use it to solve and choose the appropriate option
8	Directions		1 (Q8)		MCI	2	The student has to read and understand the word problem and apply the knowledge of directions and distance to solve and

							choose the appropriate option
9	Simple Interest		1 (Q9)		MCI	2	The student has to analyse the question and use the formula of simple interest to solve and choose the appropriate option
10	Pattern Identification		1 (Q10)		MCI	2	The student has to analyse the diagram in the question and identify the pattern to choose the appropriate option
11	Pattern Identification		1 (Q11)		MCI	2	The student has to analyse the diagram in the question and identify the pattern to choose the appropriate option
12	Linear equation		1 (Q12)		MCI	2	The student has to solve the linear equation to choose the appropriate option

appropriate option

13 Linear equation 1 (Q13) MCI 2
The student has to solve the linear equation to choose the

14	Distance +direction		1 (Q14)		MCI	2	The student has to analyse the word problem, and use the logic of direction and simple distance formula to choose the appropriate option
15	Distance +direction			1 (Q15)	MCI	3	The student has to analyse the word problem, and use the logic of direction and simple distance formula to choose the appropriate option
16	Linear Equation (2 variables)			1 (Q16)	MCI	3	The student solve the linear equation when the value of one of the variables is given and thus, choose the appropriate option
17	Linear Equation (2 variables)			1 (Q17)	MCI	3	The student solve the linear equation when the value of one of the variables is given and thus, choose the appropriate option
18	Distance and Speed			1 (Q18)	MCI	3	The student has to read and understand the word problem and use the formula od distance and speed to choose the appropriate option

19	Direction + Distance			1 (Q19)	MCI	3	The student has to understand the word problem and apply the knowledge of distance and directions to choose the appropriate option
20	Direction + Distance			1 (Q20)	MCI	3	The student has to understand the word problem and apply the knowledge of distance and directions to choose the appropriate option
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

SCIENCE							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Asexual Reproduction	1 (Q1)			MCI	1	The student has to recall the specific method of asexual reproduction and the organism that reproduces by this method

The student has to use the knowledge of magnetism and its impact with a change in the shape or dimension of the body

2 Magnetism 1 (Q2) MCI1

3	Elements and Compounds(Peri odic Table)	1 (Q3)			MCI	1	The student has to recall which of the given compounds exhibit the sp3 form of structure
4	Hormones	1 (Q4)			MCI	1	The student has to recall the hormone secreted by corpus leutium
5	Metals and Alloys	1 (Q5)			MCI	1	The student has to recall which metals are involved in the formation of the alloy-brass
6	Elements and Compounds	1 (Q6)			MCI	1	The student has to recall the elements that exist in free state in nature
7	Respiration		1 (Q7)		MCI	2	The student has to analyse the process of respiration and apply the knowledge to choose the appropriate option

8	Micro-organisms		1 (Q8)		MCI	2	The student has to analyse the different microbes and the diseases they cause to choose the appropriate option
9	Vitamins (diseases caused by their deficiencies)		1 (Q9)		MCI	2	The student has to analyse the various vitamins that the human body needs and recall what diseases are caused by their deficiencies to choose the appropriate option
10	Electricity (resistance)		1 (Q10)		MCI	2	The student has to apply the formula of resistance and choose the appropriate option
11	Chemical Reactions		1 (Q11)		MCI	2	The student has to form the chemical equation, analyse what its products are to choose the appropriate option
12	Chemical Compounds		1 (Q12)		MCI	2	The student has recall the chemical and the other names of the popularly used compounds in farming and other activities
13	Magnetism		1 (Q13)		MCI	2	The student has to recall the standard measuring unit of magnetic flux
14	Water (Its characteristics with other compounds)		1 (Q14)		MCI	2	The student has to analyse the characteristics of water in its pure state, when its salinated etc. and apply the knowledge to choose the appropriate option

15	Flower and its structure		1 (Q15)		MCI	3	The student has to evaluate the structure of a flower and how each part develops to choose the appropriate option
16	Chemical Reactions			1 (Q16)	MCI	3	The student has to use the chemical reaction equation to get the by-products and thus choose the optimum option
17	Chemical Reactions			1 (Q17)	MCI	3	The student has to use the chemical reaction equation to get the by-products and thus choose the optimum option
18	Metallurgy			1 (Q18)	MCI	3	The student has to recall the steps involved in the process of refining and metallurgy and thus identify which metal is refined by the given

							method
19	Metallurgy			1 (Q19)	MCI	3	The student has to recall the various segments of a "vatya bhatti" and choose the appropriate arrangement
20	Telescopes			1 (Q20)	MCI	3	The student has to lens formula of an astronomical telescope, solve the equation and choos ethe appropriate option
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

AGRICULTURE							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Animal Husbandry	1 (Q1)			MCI	1	The student has to recall which breed from among the given options can produce the largest no. of eggs
2	Animal Husbandry	1 (Q2)			MCI	1	The student has to recall the answer
3	Animal Husbandry	1 (Q3)			MCI	1	The student has to recall from which nation has the jersey breed of cow adotped
4	Farming Conditions	1 (Q4)			MCI	1	The student has to identify which part of U.P. is most affected by floods
5	Fruits / Vegetables	1 (Q5)			MCI	1	The student has to recall which fruit from the given options are meant for rebdering strength to the body

6 Agricultural area 1 (Q6) MCI1 The student has to recall the total agricultural area of India

7	Pasturization		1(Q7)		MCI	2	The student has to analyse the pocess of pasturization and identify the instrument used to check the density of milk
8	Animal Husbandry		1 (Q8)			2	The student has to recall the gestation period of a cow

9	Fruits / Vegetables		1 (Q9)		MCI	2	The student has to recall the chemical contents in an onion and identify which of them causes tears in the eye when onion is peeled
10	Fruits / Vegetables		1 (Q10)		MCI	2	The student has to assess the chemicals in the environment that can affect a cauliflower, and thus, identify what causes the di-colouration of the vegetable
11	Vitamins		1 (Q11)		MCI	2	The student has to the common names or other names given to various vitamins to choose the correct option
12	Farming		1 (Q12)		MCI	2	The student has to assess the various parameters to be kept in mind while farming and thus choose the appropriate answer
13	Farming		1 (Q13)		MCI	2	The student has to have knowledge of the various soils in India and their water retention power and apply it to choose the appropriate option
14	Fruits / Vegetables		1 (Q14)		MCI	2	The student has to assess the various given options and identify which of them has the highest protein content in it
15	Animal Husbandry			1 (Q15)	MCI	3	The student has to assess the respiratory system of a goat and recall the respiratory rate
16	Animal Husbandry			1 (Q16)	MCI		The student has to assess the various products generated via dairy farming
17	farming			1 (Q17)	MCI		The student has to assess the various Ph levels found in the soil and what is the name given to a soil with a Ph level of more than 7

has to adopt to make the soil condicive for farming and what material he needs to make the conditions appropriate

18 farming 1 (Q18) MCI
The student has to assess the various farming techniques a farmer

19	farming			1 (Q19)	MCI		The student has to assess the various sugar-cane producing states in India and from among them identify the one produces maximum sugarcane in the country
20	farming			1(Q20)	MCI		The student has to have knowledge of the various food grain crops produced in India and then has to identify which of the given options is appropriate as per the question
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

COMMERCE							
S.No.	**Content**	**Congnitive Level**			**Item Typology**	**Marks/Item**	**Assessable Comptencies**
		Knowledge and Understanding	**Apply and Analyse**	**Create and Evaluate**			
1	Assets and Money	1 (Q1)			MCI	1	The student has to recall which among the given options is a fixed asset
2	Business	1 (Q2)			MCI	1	The student has to recall the number of members required to form a partnership
3	Accounting	1 (Q3)			MCI	1	The student has to recall the various forms of accounts and its features
4	Five Year Plans	1 (Q4)			MCI	1	The student has to recall the specific FYP tenure
5	Five Year Plans	1 (Q5)			MCI	1	The student has to recall the specific FYP tenure
6	Banks	1 (Q6)			MCI	1	The student has to recall the year when RBI was nationalised
7	Foreign Economy		1 (Q7)		MCI	2	The student has to analyse as to why fishery industry is successful in Japan

Business	8	1 (Q8) MCI2 The student has to analyse the different forms of business partnership and the account forms associated with them and apply the knowledge to choose the appropriate answer

9	Economics		1 (Q9)		MCI	2	The student has to analyse the form of economy adopted in India and apply the knowledge to choose the appropriate answer
10	Banking		1 (Q10)		MCI	2	The student has to analyse which bank in India performs the function of the Central Bank
11	Banking		1 (Q11)		MCI	2	The student has to analyse what happens in the case of a mortgage
12	Economics		1 (Q12)		MCI	2	The student has to identify who among the given options is titled as the Father of Economics
13	Economics		1 (Q13)		MCI	2	The student has to analyse the various features of a monopoly
14	Intro to Commerce		1 (Q14)		MCI	2	The student has to analyse what the correct definition of commerce is
15	Business			1 (Q15)	MCI	3	The student has to evaluate the situation of business administration and the dos/don'ts involved
16	Foreign Economy			1 (Q16)	MCI	3	The student has to evaluate the reasons as to why America has progressed to be a developed nation
17	Business			1 (Q17)	MCI	3	The student has to evaluate the different documents involved in a company formation and its proceeding thereon and choose the appropriate option
18	Pradhan Mantri Yojanas and other Programmes for citizen welfare			1 (Q18)	MCI	3	The student has to assess the Nehru Rozgar Yojana and its contents and identify from the give options which other yojana has been merged with it
19	Economics			1 (Q19)	MCI	3	The student has to assess the key features of mixed economy and identify the appropriate option
20	Business			1 (Q20)	MCI	3	The student has to assess what happens of a partnership if one of the partners passes away and choose the appropriate option
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

SOCIAL SCIENCE							
S.No.	Content	Congnitive Level			Item Typology	Marks/Item	Assessable Comptencies
		Knowledge and Understanding	Apply and Analyse	Create and Evaluate			
1	Indian Culture and Religions	1 (Q1)			MCI	1	The student has to identify the main principle of Jainism
2	Indian Constitution	1 (Q2)			MCI	1	The student has to recall from which country did India adopt its Directive Principles of State Policy
3	Indian Culture and Religions the Vedas	1 (Q3)			MCI	1	The student has to identify from the given option which speaks appropriately of the contents of Yajur Veda
4	Indian Trade	1 (Q4)			MCI	1	The student has to identify the option that shows the set of items that form part of Indian exports
5	The stucture and functioning of the Lok Sabha	1 (Q5)			MCI	1	The student has to assess the structure of the Lok Sabha to choose the appropriate answer
6	Nationalisation of Banks (India)	1 (Q6)			MCI	1	The student has to apply the knowledge of the various years in which banks were nationalised and in the particula the year RBI was nationalised
7	The Empires in India		1 (Q7)		MCI	2	The student has to apply the knowledge of the writings by King Harshvardhana and identify the appropriate option
8	Economy of Japan		1 (Q8)		MCI	2	The student has to analyse the various reasons for the success of Fishery in Japan and pick the most important one from the given options
9	Indian Geography		1 (Q9)		MCI	2	The student has to analyse the structure of the Western Ghats and recall what the central reagion of the ghats is known as
10	The structure of the Rajya Sabha		1 (Q10)		MCI	2	The student has to apply the knowledge of who presides over the Rajya Sabha Sessions
11	Unification of Germany		1(Q11)		MCI	2	The student has to recall the main icon involved in the unification of Germany

12	SAARC Nations		1(Q12)		MCI	2	The student has to the SAARC meeting and the various locations they were held at to choose the appropriate option

13 United Nations 1 (Q13) MCI 2 The student has to recall and identify from the given options the location of the HQ of the U.N.

14	Indian Judiciary		1 (Q14)		MCI	2	The student has to analyse the functioning of the Judiciary in the country as well as the newly formed Lok Adalat and its key features
15	Maurya Dynasty			1 (Q15)	MCI	3	The student has to assess the history of the Maurya Dynasty in India and recall its capital
16	The Indian Constitution			1 (Q16)	MCI	3	The student has to assess the various rules in the Indian Constitution and when these rules were added or ammended
17	Indian Forests			1 (Q17)	MCI	3	The student is to have knowledge of the various forest form in India and identify the major use of Delta Forests
18	Developed economies (America)			1 (Q18)	MCI	3	The student has to assess the various reasons as to why America is a developed nation and choose the appropriate option
19	Carnatic Wars			(Q19)	MCI	3	The student has to analyse the Carnatic Wars and the major cause of the 1st war
20	Prime Ministerial Yojanas			1 (Q20)	MCI	3	The student has to assess the Nehru Rozgar Yojana and its contents and identify from the give options which other yojana has been merged with it
Total Items		6	8	6			
% of Items		30	40	30			
Difficulty Levels		Easy	Medium	Difficult			

ANNEXURE 2

LIST OF ABOVE AVERAGE STUDENTS

Grade X

List of Above Average Performers (X)					
S.No.	Student ID	Name	Overall Total	Overall MM	Overall Percentage
1	480	ASHWANI PATEL	154	200	77
2	420	PRIYANKA SINGH	153	200	76.5
3	335	RANU PAL	151	200	75.5
4	343	ATUL SINGH	144	200	72
5	417	SANJEEV PATEL	143	200	71.5
6	461	VINAYAK SHUKLA	143	200	71.5
7	476	SAURABH PANDAY	143	200	71.5
8	416	AMIT KUMAR	142	200	71
9	414	ATUL KUMAR	141	200	70.5
10	497	NASRUDDIN	141	200	70.5
11	337	AMIYA KRISHNA MISHRA	140	200	70
12	425	MUKESH KUMAR	139	200	69.5
13	813	DILEEP KUMAR PRAJAPATI	139	200	69.5
14	431	SHASHANK BHARAJDWAJ	138	200	69
15	850	SHUBHI CHAURASIYA	138	200	69
16	481	ARPIT SINGH	137	200	68.5
17	394	ANANYA PRAJAPATI	135	200	67.5
18	1084	ABHAY SINGH	135	200	67.5
19	573	ADITYA YADAV	134	200	67
20	772	MOHIT VERMA	134	200	67
21	814	MOH ZAID ANSARI	134	200	67
22	340	SUHEL AHAMAD	133	200	66.5
23	372	RAHUL VERMA	133	200	66.5
24	653	SONI SHARMA	133	200	66.5
25	1078	AKASH RATHAUR	133	200	66.5
26	349	PRATIGYA SINGH	132	200	66
27	499	SUPREET VERMA	132	200	66
28	539	KISHAN KUMAR	132	200	66
29	604	SANSKAR SINGH CHAUHAN	132	200	66

30	736	VISHWA DEEPAK	132	200	66
31	815	MOH MAAZ ANSARI	132	200	66
32	1095	AKANKSHA DEVI	132	200	66

33 928 SEEMA DEVI 131 200 65.5

34	574	ABHAY PRATAP SINGH	130	200	65
35	578	PIYUSH KUMAR AWASTHI	130	200	65
36	725	FARMANHAIDAR	130	200	65
37	918	ARPITA SINGH	130	200	65
38	660	MANSI CHAURASIA	129	200	64.5
39	922	VIRENDRA KUMAR VERMA	129	200	64.5
40	1082	RAGHVENDRA KUMAR	129	200	64.5
41	492	GOPAL KRISHNA SHUKLA	128	200	64
42	508	ABHISHEK KUMAR	128	200	64
43	650	PRASHANT KUMAR GUPTA	128	200	64
44	655	BHARAT TRIPATHI	128	200	64
45	828	SAUMYA SINGH	128	200	64
46	915	RAGHAV MISHRA	128	200	64
47	409	ANURUDDHA KUMAR	127	200	63.5
48	509	AMAN GUPTA	127	200	63.5
49	563	BRIJNANDAN SINGH	127	200	63.5
50	776	SUJEET KUMAR	127	200	63.5
51	924	GYANENDRA KUMAR VERMA	127	200	63.5
52	344	VASU GUPTA	126	200	63
53	393	KAJOL VERMA	126	200	63
54	458	SRAJAN AWASTHI	126	200	63
55	474	MOH. DANISH	126	200	63
56	482	MITALI MISHRA	126	200	63
57	673	RISHITA MISHRA	126	200	63
58	879	KANCHAN SINGH	126	200	63

59	935	GYANSHI SINGH	126	200	63
60	407	KAMAL KISHOR SAROJ	125	200	62.5
61	469	PAWAN KUMAR	125	200	62.5
62	784	SOHARAB	125	200	62.5
63	838	PRIYANSHU VERMA	125	200	62.5
64	846	AVISHI AWASTHI	125	200	62.5
65	1108	ANANNYA MISHRA	125	200	62.5
66	341	SARSWATI TIWARI	124	200	62
67	537	SHIVANSHU TRIVEDI	124	200	62
68	559	ANURAG KASHYAP	124	200	62
69	562	AYUSH MISHRA	124	200	62
70	584	ANJALI TRIPATHI	124	200	62

71 1079 ANUSHKA SINGH 124 200 62

72	664	ANJALI DIXIT	123	200	61.5
73	676	SHIVAM RATHOUR	123	200	61.5
74	790	AKASH GUPTA	123	200	61.5
75	829	UTTAM KUMAR VERMA	123	200	61.5
76	868	RAM SHANKAR	123	200	61.5
77	386	SAUMYA	122	200	61
78	415	SATYAM PANDAY	122	200	61
79	443	AKASH PANDEY	122	200	61
80	649	SURJEET KUMAR	122	200	61
81	730	SATYENDRA SINGH	122	200	61
82	762	NAMAN PATEL	122	200	61
83	774	RAM NIVAS	122	200	61
84	775	APARNA PAL	122	200	61
85	778	ATUL GUPTA	122	200	61
86	977	ANJALI VERMA	122	200	61
87	500	SUDHANSHU GAUTAM	121	200	60.5
88	995	HARISHANKAR	121	200	60.5
89	345	PRASHANT SHUKLA	120	200	60

90	380	SHOAB ALI	120	200	60
91	808	PRIYA SHRIVASTAV	120	200	60
92	844	HERSHIT RASTOGI	120	200	60
93	927	SHIKHA SINGH	120	200	60
94	966	ADARSH KUMAR RATHOUR	120	200	60
95	402	NITIN PANDAY	119	200	59.5
96	468	MUKESH KUMAR	119	200	59.5
97	523	SONAM	119	200	59.5
98	675	JANHAVI GUPTA	119	200	59.5
99	709	NIDHI KASHYAP	119	200	59.5
100	859	RINKU KUSHWAHA	119	200	59.5
101	923	SHALVI GUPTA	119	200	59.5
102	662	AKSHAT SINGH	118	200	59
103	681	AJIT PRATAP SINGH	118	200	59
104	706	ANUJ RATHAUR	118	200	59
105	782	PRASHANT GUPTA	118	200	59
106	836	PUSHKAR PANDAY	118	200	59
107	867	NITIN KUMAR	118	200	59
108	533	DEVANSH PRATAP SINGH	117	200	58.5
109	576	AYUSH VERMA	117	200	58.5
110	651	KULSUM BANO	117	200	58.5

111 760 ANIL SHARMA 117 200 58.5

112	769	LOVPREET DWIVEDI	117	200	58.5
113	779	ARJUN KUMAR	117	200	58.5
114	843	SONAM SINGH CHAUHAN	117	200	58.5
115	975	ANJALI	117	200	58.5
116	1102	SHAURYA VEER SINGH	117	200	58.5
117	445	PRIYA SHRIVASTAVA	116	200	58
118	478	AKASH GUPTA	116	200	58
119	510	ANKIT GUPTA	116	200	58
120	512	PARUL PRAJAPATI	116	200	58

121	657	SATYAM VERMA	116	200	58
122	798	KOMAL CHAURASIYA	116	200	58
123	856	SHASHANK MISHRA	116	200	58
124	857	MUNIKANT KUSHWAHA	116	200	58
125	1111	NAJMA	116	200	58
126	515	ABHISHEK DWIVEDI	115	200	57.5
127	524	DIVYA SINGH	115	200	57.5
128	767	PANKAJ VERMA	115	200	57.5
129	781	DEVESH KUMAR	115	200	57.5
130	836	PRIYAMVADA SIDDHARTH	115	200	57.5
131	855	RAVI KASHYAP	115	200	57.5
132	454	GUNJAN VERMA	114	200	57
133	472	AYUSH KUMAR GHUPTA	114	200	57
134	507	SACHIDANAND	114	200	57
135	566	VIDUSHI GUPTA	114	200	57
136	768	KAMLESH KUMAR	114	200	57
137	777	HIMANSHI DEVI	114	200	57
138	382	SUVARNA	113	200	56.5
139	385	ANKITA DEVI	113	200	56.5
140	392	RISHABH RASTOGI	113	200	56.5
141	522	MUSKAN GUPTA	113	200	56.5
142	571	VANDANA SINGH	113	200	56.5
143	636	ANSHU DWIVEDI	113	200	56.5
144	647	SANJEET KUMAR	113	200	56.5
145	714	PRINSHIKA TRIVEDI	113	200	56.5
146	733	PALAK SINGH	113	200	56.5
147	771	RAGIB ANSARI	113	200	56.5
148	806	PALLAVI PATEL	113	200	56.5
149	835	UTTAM DIXIT	113	200	56.5
150	880	GAURAV KUSHWAHA	113	200	56.5

151 1061 NEELAM DEVI 113 200 56.5

152	376	SURYABHAN SINGH	112	200	56
153	506	UTTAM SINGH	112	200	56
154	654	NIKUNJ TRIVEDI	112	200	56
155	682	SUYASH SINGH	112	200	56
156	727	UNNATI GUPTA	112	200	56
157	734	KAMINI VERMA	112	200	56
158	832	RAJAT BHARDWAJ	112	200	56
159	887	NITEESH PRAKASH	112	200	56
160	895	ANKIT SINGH	112	200	56
161	970	VAISHALI BHADAURIYA	112	200	56
162	997	HARSH KUAMR DIXIT	112	200	56
163	1005	SHOBHIT KUMAR	112	200	56
164	1083	ARUN PANDAY	112	200	56
165	371	AMIT KUMAR	111	200	55.5
166	514	NAMITA VERMA	111	200	55.5
167	555	FUSAIHA ANSARI	111	200	55.5
168	656	ASHISH KUMAR	111	200	55.5
169	674	VANTIKA VERMA	111	200	55.5
170	739	SHRADDHA SHARMA	111	200	55.5
171	792	AKSHAYA PRATAP SINGH	111	200	55.5
172	800	HIMANSHU SINGH	111	200	55.5
173	862	KHUSHBOO GUPTA	111	200	55.5
174	989	SUDHANSHU	111	200	55.5
175	1016	SHASHANK SINGH	111	200	55.5
176	1027	PIKESH KUMAR	111	200	55.5
177	477	UPMA SHARMA	110	200	55
178	678	DIPANSHU GUPTA	110	200	55
179	788	JITENDRA KUMAR	110	200	55
180	807	GARIMA TRIVEDI	110	200	55
181	852	SUBHRAT KUMAR MISHRA	110	200	55
182	860	CHETAN GUPTA	110	200	55
183	890	ZUNAID AKHTAR	110	200	55
184	635	VIRENDRA	109	200	54.5

		KUMAR VERMA			
185	686	MOHD RIZWAN	109	200	54.5
186	724	AMAN RATHAUR	109	200	54.5
187	731	MOHD SALMAN	109	200	54.5
188	894	UDAYVEER SHARMA	109	200	54.5
189	1109	ANSHITA MISHRA	109	200	54.5

Grade XII (Stream-wise)

List of Above Average Performers (Science-Math)					
S.No.	**Student ID**	**Name**	**Total Marks Obtained**	**Overall MM**	**Percentage (in Screening Assessment)**
1	366	ANKIT KUMAR VERMA	108	140	77.14
2	353	RAJIYA PARVEEN ANSARI	106	140	75.71
3	391	SAURABH BAJPAI	105	140	75.00
4	545	VISHVA DEEPAK PANDEY	102	140	72.86
5	460	SAURABH SINGH	100	140	71.43
6	398	SATYAM SONY	100	140	71.43
7	379	SAHIL PANDAY	100	140	71.43
8	1034	MOH. ASAD	97	140	69.29
9	1033	ABHISHEK TRIPATHI	97	140	69.29
10	1024	PRASHANT MISHRA	96	140	68.57
11	964	SAGAR RATHAUR	96	140	68.57
12	470	ARTI TIWARI	96	140	68.57
13	611	VIJAY KUMAR	93	140	66.43
14	466	AMIT KUMAR	93	140	66.43
15	1008	FARHEEN BANO	92	140	65.71
16	744	NITYA VERMA	92	140	65.71
17	441	PRIYA AGNIHOTRI	91	140	65.00
18	452	DEVENDRA PAL	91	140	65.00
19	547	PRITEE SHARMA	91	140	65.00
20	352	RAHUL SHRIVASTAVA	90	140	64.29
21	467	SHIVAM TIWARI	90	140	64.29

22	359	GYANESH GUPTA	89	140	63.57
23	390	SHUBHAM KUMAR	89	140	63.57
24	765	HARSHIT KUMAR SINGH	87	140	62.14
25	886	AKANKSHA SINGH	87	140	62.14
26	616	ANKIT SHARMA	87	140	62.14
27	473	RICHA GUPTA	87	140	62.14
28	719	DHARM PAL	87	140	62.14
29	401	DIVYA VERMA	87	140	62.14
30	1101	ASTHA MISHRA	86	140	61.43
31	590	SOMESH PRATAP	85	140	60.71
32	888	VIVEK SINGH	85	140	60.71
33	399	HIMANSHU TRIVEDI	85	140	60.71
34	403	AJAY PRATAP	84	140	60.00
35	608	SWATI SINGH	84	140	60.00
36	489	ANKUR BABU	84	140	60.00

37 1119 VASUNDHRA 84 140 60.00

38	354	ANKIT KUMAR	83	140	59.29
39	491	SHIVANI KUSHWAHA	83	140	59.29
40	759	SATYAM AGNIHOTRI	83	140	59.29
41	325	SHIVANI GUPTA	83	140	59.29
42	1104	GOPAL SRIVASTAV	83	140	59.29
43	405	SUSHMITA DEVI	83	140	59.29

List of Above Average Performers (Science-Biology)

S.No.	Student ID	Name	Total Marks Obtained	Overall MM	Percentage (in Screening Assessment)
1	330	SWATI GUPTA	102	140	72.86
2	614	SHEEBA KHATOON	99	140	70.71
3	329	VARTIKA GUPA	99	140	70.71
4	1044	ARVIND KUMAR	93	140	66.43
5	711	ABHISHEK KUMAR	92	140	65.71

6	486	SUMEDHA PAL	92	140	65.71
7	903	SHEETAL YADAV	90	140	64.29
8	599	APOORVA VERMA	90	140	64.29
9	1013	MONI SHARMA	89	140	63.57
10	1017	GARIMA SINGH	85	140	60.71
11	703	ANANYA PAL	84	140	60
12	1096	SHAHEEN FATIMA	84	140	60
13	823	RISHABH DUBEY	83	140	59.29
14	369	RADHA DEVI	83	140	59.29
15	1052	SONAM DEVI	82	140	58.57
16	642	MAYANK KUMAR	81	140	57.86
17	423	PRINCI TIWARI	80	140	57.14
18	435	AKASH VERMA	80	140	57.14
19	701	ABHINYA PAL	80	140	57.14
20	505	RAJAT SHUKLA	78	140	55.71
21	597	SURYA PAL	78	140	55.71
22	817	PRATIKSHA VERMA	78	140	55.71

List of Above Average Performers (Commerce)

S.No.	Student ID	Name	Total Marks Obtained	Overall MM	Percentage (in Screening Assessment)
1	953	SHIVANI AGARWAL	93	140	66.43
2	426	JYOTI AWASTHI	90	140	64.29

List of Above Average Performers (Agriculture)

S.No.	Student ID	Name	Total Marks Obtained	Overall MM	Percentage (in Screening Assessment)
1	1056	SHIVAM MAURAY	91	140	65
2	350	ABHISHEK DWIVEDI	85	140	60.71
3	1010	MADAN MOHAN GIRI	82	140	58.57

List of Above Average Performers (Arts/Humanities)

S.No.	Student ID	Name	Total Marks Obtained	Overall MM	Percentage (in Screening Assessment)
1	422	RASHMI TRIPATHI	94	140	67.14
2	753	SURAJ SINGH	93	140	66.43
3	450	RAVI KUMAR	91	140	65
4	751	SUSHEEL KUMAR	90	140	64.29
5	702	VARSHA DEVI	88	140	62.86
6	632	SANA KHATOON	87	140	62.14
7	688	SUMIT KUMAR	86	140	61.43
8	715	AMIT KUMAR	84	140	60
9	615	NAJISTA	83	140	59.29
10	1113	SANYOGITA DEVI	83	140	59.29
11	585	VAISHALI SINGH	83	140	59.29
12	367	NEHA MISHRA	81	140	57.86
13	406	MANSI RATHORE	79	140	56.43
14	1031	NISHA KHAN	77	140	55
15	802	SANDHYA SHARMA	77	140	55
16	448	PANKAJ KUMAR	77	140	55.00
17	544	UTKARSH KUMAR	76	140	54.29
18	931	AMISHA BAJPAI	76	140	54.29

19 411 SUDHIR KUMAR SINGH 75 140 53.57

20	449	AILIYA ATIQUE	75	140	53.57
21	633	SUNIL KUMAR SONY	75	140	53.57
22	745	AFREEN	75	140	53.57
23	626	SABA	75	140	53.57
24	712	YOGENDRA SINGH	75	140	53.57
25	764	YASMIN	74	140	52.86
26	552	ROSHANI DEVI	73	140	52.14
27	538	ANSHIKA GUPTA	73	140	52.14
28	1021	DIVYA SINGH CHAUHAN	73	140	52.14
29	488	SHOBHA YADAV	73	140	52.14
30	483	SAUMYA GUPTA	72	140	51.43

31	643	DEEPALI GUPTA	72	140	51.43
32	1067	SURABHI AWASTHI	72	140	51.43
33	442	PRATHVIRAJ	72	140	51.43
34	404	PUNEET KUMAR	72	140	51.43
35	412	RISHI KAPOOR	71	140	50.71
36	756	ZAHAR ALI	71	140	50.71
37	612	SHAHANA KHATOON	71	140	50.71
38	364	MOH. SARTAJ KHAN	71	140	50.71
39	955	ANJANI MAURYA	71	140	50.71
40	827	SEEMA DEVI	70	140	50
41	645	ANURADHA	70	140	50
42	328	AMAN GUPTA	70	140	50
43	1100	AYUSHI MISHRA	70	140	50
44	960	ANJALI GUPTA	70	140	50
45	982	ANTARA SINGH	69	140	49.29
46	1118	SADHANA SAXENA	69	140	49.29
47	913	NEHA KASHYAP	69	140	49.29
48	575	SANDHYA PAL	69	140	49.29
49	985	SHIVANI DEVI	68	140	48.57
50	825	SWETA DEVI	68	140	48.57
51	1030	SANA BANO	68	140	48.57
52	948	RACHNA GUPTA	68	140	48.57
53	1068	RUCHI MISHRA	68	140	48.57
54	705	URVASHI VISHWAKARMA	67	140	47.86
55	1049	MADHURI SINGH	67	140	47.86
56	1055	MONI DEVI	67	140	47.86

57 617 SHWETA 67 140 47.86

58	621	SHEETLA	67	140	47.86
59	1046	SHIVANGI	67	140	47.86
60	1032	MAHROZ JAHAN	66	140	47.14
61	619	VAISHALI GUPTA	66	140	47.14
62	951	REKHA DEVI	66	140	47.14

63	937	NAMRATA	66	140	47.14
64	754	HIMANSHU	66	140	47.14
65	541	PRADEEP KUMAR	66	140	47.14
66	502	VINEET KUMAR	66	140	47.14
67	629	SHIVANGI GUPTA	66	140	47.14
68	941	ARCHANA DEVI	66	140	47.14

List of Above Average Performers (Vocational)					
S.No.	**Student ID**	**Name**	**Total Marks Obtained**	**Overall MM**	**Percentage (in Screening Assessment)**
1	698	SOBHIT KUMAR GAURH	75	140	53.57
2	501	VEDPAL	74	140	52.86
3	710	SOMVTI	72	140	51.43
4	609	DIVYANSHI MISHRA	72	140	51.43
5	560	MANDAVI MISHRA	71	140	50.71
6	625	POOJA VERMA	69	140	49.29
7	591	RINKU	68	140	48.57
8	1037	MAYANK SHUKLA	67	140	47.86
9	456	SHUBHANJALI MISHRA	66	140	47.14
10	613	YATENDRA KUMAR VERMA	66	140	47.14
11	463	MUNFIYA BANO	66	140	47.14
12	549	NISHA DEVI	64	140	45.71
13	587	UNNATI GUPTA	64	140	45.71
14	820	ASHA DEVI	64	140	45.71
15	550	ARTI DEVI	63	140	45
16	938	CHANDAN KUMAR	63	140	45
17	640	POOJA RATHOUR	62	140	44.29
18	1053	SHILPI	61	140	43.57
19	826	RAKHI DEVI	60	140	42.86
20	589	DHRUV GUPTA	60	140	42.86
21	464	UMME MAIYYA	60	140	42.86

22 1105 SEEMA DEVI 60 140 42.86

23	999	KALPANA	59	140	42.14
24	942	DEEPU GUPTA	58	140	41.43
25	1019	PRIYANKA VERMA	58	140	41.43
26	628	POOJA DEVI	58	140	41.43

ANNEXURE 3

RESULTS OF THE 11 STUDENTS DROPPED FROM THE ANALYSIS

(Left a subject or two un-attempted)

S.No.	Student ID	Name	Stream	English	Hindi	Mental Ability	Social Science
1	959	Prachi devi	Arts	50	47.5	0	0
2	418	Neelam devi	Vocational	0	5	0	52.5
3	936	Prabha devi	Vocational	0	47.5	10	52.5
4	904	Pooja yadav	Vocational	0	35	12.5	35
5	1122	Mamta kumari	Vocational	0	55	5	40
6	1121	Phoolan shri	Vocational	0	45	47.5	42.5
7	1074	Rushma	Vocational	0	42.5	30	47.5
8	757	Jyoti devi	Vocational	0	22.5	40	22.5
9	1036	Vandana	Arts	0	15	35	0
10	932	Priyanka devi	Arts	0	17.5	0	2.5
11	542	Apoorva	Arts	30	50	57.5	42.5
12	1043	Akanksha devi	Arts	10	55	0	47.5