AGENDA ITEM 11: NATIONAL TESTING SCHEME

Current Scenario

Students emerging from the higher secondary system and seeking admission to professional programmes of study at the undergraduate level in higher education appear in a multitude of entrance examinations. These examinations are conducted either by the institution or by a consortium of institutions (both at State and National level) or by State agencies on behalf of institutions both at the State of National level.

The standards of these entrance examinations vary widely. The burden thereby imposed on the student in terms of time, money (the examination fees to be paid) and the stress caused in scheduling and preparing for each examination is tremendous. The student has to concomitantly restrict his/her choice of institutions for which he/she can compete based on the scheduling arrived at. For admission to Social Science and Humanities courses on the other hand, the performance of the student at the secondary school leaving examinations conducted by Boards of Secondary Education at the Central and State level is the usual determinant of merit in the admission process.

There are two problems that exist in this case. The secondary school board examinations are one-off affairs and the student is not provided the opportunity to improve upon his/her score. There is, therefore, no margin for any contingency or unforeseen circumstance that could affect performance. The anxiety and trauma on the student and parents has been highlighted on numerous occasions. Secondly, the wide disparity in standards of examinations and evaluation across the State Boards does not render itself to an objective, transparent and reliable cross-country comparison.

Concept of National Testing Scheme

The key factors for a nationally acceptable testing scheme in order to avoid multiple examinations should;

- Provide the student with opportunities to improve.
- Provide flexibility to the institution in structuring its admission process.

- Be structured in a manner which is perceived to be transparent, fair, reasonable and reliable.

- Accommodate the diversity in learning outcomes at the secondary level without compromising on its ability to indicate merit.

- Account for the difference in the social-economic background of students in a manner that is objective and discernible and to elucidate the diversity in categorization at the level of States.

- Be cost neutral for the testing agency with a mechanism to share revenue with State Boards.

Generally, admission practices in institutions of higher learning can be categorized into four types as follows:

- Type 1: Admission based on performance in the examinations of the course last attended. e.g. admission to undergraduate courses in universities based on the performance in the Class XII examinations.

- Type 2: Entrance examinations that test subject knowledge, achievement and learning levels for a student to attempt the course for which he/she seeks admission. e.g. Joint Entrance Examinations (JEE) conducted by IITs.

- Type 3: Standardised aptitude tests that measure the general cognitive, analytical and communication abilities rather than achievement. e.g. Common Aptitude Test (CAT) conducted by IIMs.

- Type 4: Admissions based on academic performance over a period of time or on the application dossier. e.g. admission to post-graduate courses based on academic performance at the undergraduate level along with references from professors.

The reliability and validity of the entrance examinations is best determined by their ability to accurately evaluate the candidates' academic performance at the university level. Studies indicate that secondary/high school leaving performance is a better indicator of academic success. This has also been stressed by the Committee that went into restructuring of the JEE. However, with the wide variation in the examination processes at the higher secondary level across the country and the difficulties associated with normalization of the results of the examinations across

State Boards of Secondary Education makes it well nigh impossible to arrive at a reliable or reasonable predictor of relative merit.

Studies have also indicated that essay-based examinations that focus on writing ability and analytic arguments may be more effective in predicting academic success rather than multiple choice tests. This leads to the issue of objectivity in the examination process. Reading and evaluating essay type question requires interpretative judgment on behalf of the evaluator. The resultant score is to some extent dependent on the preferences and predilection of the evaluator. The purpose of standardization of examinations as a means of assessing inter-se merit between candidates may then be questionable. Another problem with having an examination that tests knowledge and achievement through essay type answers is the complication caused by the vast numbers of candidates. This would require a substantially large number of evaluators with the probability of differences in assessment between evaluators being higher and objectivity being somewhat lost.

What is required is an admission process that navigates the intrinsic problems associated with the adoption of a single admission system in its reliability to predict academic success as well as being discernible as credible, transparent, fair and reasonable. A mix and match strategy in the right proportion would deliver better results than a single methodology. Therefore, the design of a national examination for entry to undergraduate courses that can capture the knowledge and learning levels along with the aptitude of the student in a manner which is comparable across the country requires an Aptitude Test to be administered concurrently with Subject Tests. The Aptitude Test would assess the ability of the student to analyse, comprehend, interpret, communicate and evaluate. To make the test tailored to the choice of the student and also to be less stressful on the student, the test could be administered at two difficulty levels, moderate and high. In so far as subject tests are concerned, these tests would perform the standardization function across States Boards and CBSE/ICSE and the scores obtained in these tests could normalize the results obtained by the student in the Board examinations in the subjects of his/her choice. This provision would cause States to orient the tests in these subjects to the state context appealing to local history, culture and language. It would also be in keeping with the trend that inter-State mobility amongst students pursuing programmes of study emerging from these subjects is minimal. The students can appear in a subject or combination of subjects of their choice depending

on the institutions to which they plan to seek admission. The tests may be based on multiple choice questions along with a few short essay type questions to test the analytical and cognitive abilities based on subject proficiency learning and understanding. The performance could be graded both on raw sores as well as percentiles depending on how a institution ants the results to be tabulated and provided to it. The tests could be conducted at least twice a year gradually increasing the frequency when robust mechanisms have been put in place.

National Testing Agency

The Programme of Action, 1992 for implementation of the National Policy on Education, 1986 describes far-reaching changes in the examination and evaluation systems at the university level. Among other things, it mentions the setting up of a National Testing Service to be developed as a quality control mechanism, which would organise national level tests on voluntary basis and for norms to be evolved for comparability of performance and also for conducting independent tests.

The National Knowledge Commission in its Report to the Nation (2006-2009) also mentions the setting up of a National Testing Service for certification of language competence, recruitment of language teachers, development of open and distance education and open educational resources.

A National Testing Agency would have the mandate to conduct the testing mechanisms and processes to the exclusion of institutional testing for admissions. Provision for States to establish State Testing Agencies could be made to conduct tests as well as assist the National Testing Agency in the discharge of its duties. The National Testing Agency could have an executive body of whole-time appointees reporting to a General Council with representation of heads of all State Testing Agencies amongst other eminent persons. A revenue sharing model with State Testing Agencies can also be built in so that the new testing scheme would not cause a loss of existing revenue to States.

Conducting national tests of the magnitude and reach contemplated would require managerial and technological capabilities of the highest levels which need to be adequately provided in the organizational architecture of the proposed Agency. Although in the initial stages,

computerized testing methods would have to run concurrently with paper-pen written tests to account for differential exposure levels of students across the country to technology, institutional capacity and capabilities would have to be upgraded so that the testing scheme operate entirely using online computerized methods. The reach projected by the implementation of the National Knowledge Network and the National Mission on ICT to institutions around the country would enable computerized testing to be made possible. Preparing the students (expected in the range of 40 to 50 lakhs every year at present increasing up to 100 lakhs by 2020) would be another mammoth task, though not impossible if we acknowledge the success of electronic voting machines being universalized in the country.

The National Testing Agency would have to take care of infrastructure and academic aspects of testing. Infrastructure aspects would include setting up and operating an e-examination halls consisting of hardware and system software and necessary support. Academic aspects such as creation of question banks, graded for various levels of difficulty while taking into account types of questions, design of question papers, declaration of results, how test scores should be viewed by students and academic institutions etc. would be taken care by domain experts, psychologists, educationists and teachers.

A good example to emulate would be to look at the Centre for Assessment, Evaluation and Research, which is a partnership between CBSE, and the Pearson Foundation. Its mandate is to develop research and assessment capabilities and resources for CBSE, its affiliated schools and teachers. Its work will be guided by international best practice in school-based assessment, teaching techniques and high-stakes examinations. It carries out research, provides professional development programmes, and publishes a variety of support materials, all with the single aim of improving student learning.

The Association of Test Publishers (ATP) is another example which can be useful while contemplating setting up a National Testing Agency. As per information on its website, ATP is a non-profit organization representing providers of tests and assessment tools and/or services related to assessment, selection, screening, certification, licensing, educational or clinical uses. Leading publishers and assessment services providers in the testing industry are members of ATP. A Chief Executive Officer and Board of Directors head up the Association. A Chairperson is selected each

year from among the Board members and serves a one-year term of office. Each area of testing has its own division: Certification/Licensing, Clinical, Education, and Industrial /Organizational.

Perhaps the most efficient way to proceed with the setting up of the National Testing Agency in higher education would be to through the mechanism of a Special Purpose Vehicle. The best practices from the above examples and others may be adapted for the purposes of the Agency, so that the various exam administering bodies such as JEE, AIEEE, CAT, CMAT, GATE etc. are brought together under a single body. A model for a National Agency for Testing has been prepared by CBSE, which suggests the objectives, structures and functions of the Agency. The same is circulated in Annexure for information of CABE and further discussions.

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NATIONAL AGENCY for TESTING

The Genesis

In response to great need for a National Testing Service in POA, 1992 of National Education Policy of India, it is proposed to establish an institution along the professional lines to conduct professional entrance examinations.

This will be first of its kind in India with administrative and financial autonomy, self-reliant and self-sustained premier testing organization, which will conduct tests and assessments for admissions, scholarships, etc. It will be governed by a Governing Council.

It will play a pivotal role in promoting merit and quality education at college and university level. Following its core values, NAT will always strive for excellence and ensure quality, efficiency, reliability, accuracy and most significantly credibility of entire system in a transparent manner under strict security arrangements. NAT tests and assessment are likely to become pre-requisite for many prime public and private sector engineering, medical and other colleges, universities and institutions for admission and recruitment.

This body will be mainly responsible for the preparation and administration of JEE (Main), besides the delivery of other national-level exams through a dedicated group of professionals, researchers and independent experts having knowledge of the assessment and testing field, without involving teachers. It will be an Indian entity. It will do research for preparing question papers, administer and conduct exams. At a later stage it will be positioned as internationally recognized testing and assessment organization facilitating in producing educated and market competitive human resource and will promote standards in educational and professional testing and assessment.

It will follow a ZERO tolerance policy in conducting tests and assessments which means facilitating standardized selection and authentic measurement of candidate's knowledge and skills. Following its core value, NAT will always strive for excellence in all its endeavours to improve systems, procedures and issues that attribute to the traditional testing services.

The Vision –

An internationally benchmarked testing and assessment organization facilitating in identification of competitive human resource.

The Mission –

To develop and promote standards in educational and professional testing and assessment

The Objectives –

- To conduct efficient, transparent and international standards tests in order to access the competency of candidates for admission, and recruitment purposes.

- To undertake research on educational, professional and testing systems to identify and bridge the divide between prevailing academics and operational gaps in the systems.

- To showcase the capacities of the educational and professional individuals and institutions by professional certification through testing and assessment.

- To produce and disseminate information and research on education and professional development standards

The Key Traits –

The key traits of this organization will be to ensure

- Transparency

- Suitability for use

- Examinees support service

- Fairness

- Uses and protection of information

- Validity

- Reliability

- Research based Cut scores, scaling, and equating

- Assessment use

- International Standards Testing

- Quality Management

Functional Areas of the Agency

The Agency will primarily focus on educational assessment and will have the following functional areas:

1. Delivery of Educational Assessment

2. Capacity building on Item Writing and Psychometric Analysis

3. Research and Innovation

4. Publications and Documentation

5. Professional Development and Leadership

6. Administration, Finance and Audit

7. Student Support

8. IT

1. Delivery of Educational Assessment

a) Preparation of Educational Assessment

This will be responsible for establishing guidelines on assessment and will aim to create, trial and support the implementation of assessment as well as improving quality of entrance examinations. This will include training of schools heads, subject teachers, and paper setters as well as moderators of papers in drafting good test items, trialing test items, collecting data and analyzing performance. The focus would also include capacity building in the areas Assessment,

Entry level examinations, Curriculum Development, Measurement & Assessment, Assessment resources & instruction material, etc.

It will also identify item writers, moderators and prepare question banks/question papers from approved items. It will also identify confidential printers and ensure required supply of question papers in co-ordination with operations department.

b) **Operations/Production & Logistics**

This will provide assistance to test centers, candidates, and vendors. Assist in the organization, deployment, and support of existing and new JEE systems by working closely with the representatives from other areas, program direction and test centre administrators.

Take action (or make recommendations) to resolve issues to ensure 100% accurate, on-time delivery of JEE test.

Other responsibilities will include –

- Provide support during the installation and test administration phases of the test by following the guidelines, administrative\technical documentation and agreements developed by NAT.

- Provide assistance in Monitoring and managing capacity to ensure sufficient capacity is maintained. Identify constraints and solicit new test centers.

- Recognize problems, research, isolate, recommend resolution steps and follow up with senior staff to ensure resolution.

- Provide assistance with lab support and participate in pre-distribution launches and operational tests.

- Maintain a current working knowledge of test center humanware, hardware, monitoring devices, and equipment required to assure test center compliance with the latest standards.

- Keep abreast of changes in policies and procedures of existing testing programs as well as new testing programs.

- Create and/or monitor the creation of SOPs and Process Maps apply those in production. Review, develop, streamline and standardize templates and processes.

- Identify best practices and ensure they are documented.

- Identify and implement improvements and/or policy changes to meet quality objectives for cost effective test administration processes.

Specifically, this unit will be responsible for the following works:

I. Notification

1. Issue of Notification

2. Appointment of key position holders/professionals/senior officers and supporting staff for the conduct of examination

3. Initiation of professional development in area of curriculum for JEE

4. Approval of common core syllabi (including sample questions)

5. Planning and budgeting for one year so as to have a perspective plan.

6. Utilizing the services of Experts/Consultants for Uploading and Notification of Common Core Syllabus

II. Bulletin Preparation

1. Initiation of publication of Admission Notice in electronic and print form

2. Initiation of development of materials

3. Approval of bulletin

III. Pre Examination Activities

1. To take online data of candidates from JEE Branch

2. Conduct of scanning of confirmation page received

3. Collation of scanned data as well as the data received online and identification of discrepancies

4. Reconciliation of online application data and fee collection data

5. Passing of discrepancy data for removal of discrepancies

6. Rectification of discrepancies and finalization of data

7. Information of accepted applications online

8. Uploading of status of acceptance of applications received online

9. Providing of data state-wise and city-wise to the logistics branch for fixation of centres

10. Coordination with the logistics branch for Roll number generation and centre allotment to the candidates

11. Generation of online admit cards and display on website

12. Conduct of initial printing of centre material that is attendance sheets, absentee proforma, Centre wise list of candidates etc. and providing the same to logistics branch

IV. Confidential Work

1. Appointment of Question Papers Custodians

2. Designing of OMR sheets

3. Printer

4. To ensure supply of required quantity of Question Papers for each Centres

V. Conduct of Examination

1. Time to submit the application forms

2. Processing of Applications

3. Uploading of Admit Cards

4. Co-ordination with various external administrative authorities like District Magistrate, Police, Air Port authorities etc.

5. To have control room in the Office for continuous and vigorous Monitoring and Supervision

6. Conduct of Examination

VI. Post Examination Activities

1. Scanning of OMR sheets received from the Secrecy officer

2. Collation of scanned data by the agencies

3. Identification of discrepancies for removal in consultation with the Secrecy Officer

4. Printing of Absentee list and finalization of scanned data/Result

5. Feeding of list of Absentees

6. Finalization of number of candidates appearing in the examination

7. Finalization of scanned data of candidates appeared in the examination

8. Generation of PDF files of scanned data and images of answer sheets as well as answers read by computer for display online

VII. Merit List

1. Collection of Results from State Boards/Other Boards

2. Issues regarding non-receipt of complete data in respect of certain Boards being place before JAB

3. Normalization process is to be finalized and implemented

4. Result processing

5. Finalization of Merit List. Merit list will be based on 40% weightage of performance in class XII Board's Marks normalized on percentile basis and the remainder 60% weightage of performance in JEE

6. Supply of result to the office as per requirement

7. Uploading of result sheets on website

8. Updation of rank letters on website

9. Dispatch of call letters

10. Start of Counselling

(c) Psychometric/Education Measurement/Data Analysis

Psychometric analysis ensures that final test meets design objectives, educational requirements and legal standards. Each test and its items are subjected to various analyses aimed at determining the measurement quality of the assessment. This ensures that exam, and every subsequent version of it, continues to meet high standard of quality. More specifically, the Unit will be responsible for-

- Refined, proven test item development process that delivers innovative question types, dynamic, targeted content and unambiguous responses in a timely and efficient manner.

- Oversee and approve all technical decisions to support assigned testing programs; enforce standards for educational and psychological testing; seek input for complex decisions from relevant senior psychometric advisors and other experts.

- Contribute to testing programs used to help make high-stakes assessments. Researchers and psychometricians will collaborate on assessment designs and plan, coordinate, conduct, and report on statistical analyses.

- Score Reporting and Data Interpretation, Plan, coordinate and conduct the statistical work required for score reporting and data interpretation for the operation and maintenance of

testing programs including operational work on, equating, calibration of operational and pretest items, and production of item pools.

- Be accountable for basic equating decisions (perform reviews)

- Participate in applied research studies intended for professional presentation and publication.

- Application, modification, and documentation of data analysis systems using established technologies.

- The Unit will also design, modify, document and implement technologies for executing research development data analyses/methodologies. Identify unusual data analysis situations and problems.

- It will also be responsible for development of technologies for executing research and development data analysis projects/methodologies. Implementation and support of new hardware/software/data analysis methodologies to support research development.

- Implement components of technical documentation of data analysis systems, solutions and results.

- Monitor and provide input to budgets and cost estimates for programs and projects. Pro-actively work toward reducing costs, increasing work efficiencies, greater customer satisfaction, and quality improvement and assurance.

- Facilitate implementation of the quality initiatives and best practices.

- Accounting for the accuracy and quality of all psychometric work.

- Coach and mentor ensuring that appropriate training and other development activities occur to assist the staff in their career growth.

- Process Improvement/Innovation/Quality Control, Proactively work toward shorter cycle time, reduced costs, greater customer satisfaction, and quality maintenance.

- Test Design-Contribute to the design, documentation, and implementation of statistical and reporting systems.

- Student Interaction (Internal) - Produce operational reports/presentations in response to data requests from students and parents.

- Contribute to the development of score interpretation materials and relevant portions of testing program publications.

- Training/Mentoring, Coach and mentor staff, as appropriate.

- Perform operational work for assigned testing programs with straightforward operations. Assemble and process data for routine statistical operations. Monitor the completion of tasks identified in the context of the processing schedule, including the receipt of critical information from other areas.

- Review results, draft procedure memos, and maintain program files. Suggest to higher-level staff the areas in which greater efficiencies might be obtained.

- Arrange for and perform routine statistical analysis and data-processing tasks, user-oriented computer packages, and statistical software packages. Create datasets, enter computer job control information, code parameters, and submit programs for execution.

- Draft standard statistical reports and complex reports.

- Prepare and check critical information for score reporting, tables, and figures for statistical procedures, documentation, and reports. Update textual material for such documents.

- Draft routine statistical procedures and other documents for assigned testing programs and projects, working from model formats and using planning information from staff in program direction, data processing, and content.

- Perform a wide variety of statistical calculations (e.g., mean, percentiles, standard error of measurement, and reliability estimates).

- Assist in preparing program documentation, update and maintain statistical files and operational data file for assigned programs and projects.

2. Capacity building on Item writing and Psychometric Analysis

This will help build local capacity by providing a professional development opportunity that enhances the knowledge base of educational leaders.

Item Writers draft exam questions (referred to as test items) based on the test blueprint and according to the test item writing guidelines. For the JEE test, multiple choice questions (MCQs) are written.

3. Research and Innovation

The Department will be responsible for establishing action research based guidelines support for improvement of different examinations conducted. It will also plan long-term substantive research agenda for innovations in assessments and their scoring. Participate in determining research policies and priorities with broad organizational implications. Direct the scientific, financial and administrative conduct of major research, exercising well-developed skills in the management of human and other resources. Oversee the development and application of technical competence of less senior staff. Implement dissemination activities utilizing various methodologies to reach specific audiences. Disseminate knowledge, particularly the results of activities through the publication of research papers, progress and technical reports, the presentation of seminars or other appropriate communication vehicles.

More specifically, this will be responsible for conceptualizing and maintaining a research agenda designed to advance the field of measurement in the development, validation, deployment and operational maintenance of current and future assessments that include simulation-based tasks and automated scoring systems. The research department will advance best practices for the effective and efficient scoring of innovative tasks, especially simulation-based tasks, and understanding the psychometric characteristics of automated scoring technologies. This will include research on automated scoring of essays, scoring short answers for correctness of content, mathematical equations and plots, and scoring the spontaneous speech of English Language Learners as well as new systems yet to be deployed. There will be a supervised team of

approximately 10 PhD level research scientists in the group of R&D. The department will also work closely with the Research fellows for the Cognitive and Learning Sciences group and the Natural Language Processing and Speech Group, contributing measurement and research design expertise to common goals in the design, evaluation and deployment of scoring for innovative tasks aimed at Aptitude testing.

4. Publications and Documentation:

This will be responsible to select, produce and publish resources including tests, kits, books for professional practitioners in education, psychology, parent education, special needs etc. It will also develop and publish materials for teacher empowerment, action research studies etc. Research materials, Monographs, Technical papers and other dissemination material related to different educational aspects will be published regularly to share research findings with all the stakeholders. These materials on curriculum, best assessment practices and teacher empowerment will provide a platform to educationist to share their experience. It will also have digital portal to disseminate its works.

5. Professional Development and Leadership

This will aim to strengthen the teaching profession and to monitor the progress and achievements of educational leaders and teachers. The tasks carried out would also include advice on professional recruitment strategies, professional learning and leadership, teacher evaluation and career development. It will work closely with institutes in the area of professional training as all educationists need to be empowered in the areas of assessment for learning including creating, and designing good test items and analysis of test data.

6. Administration, Finance and Audit

This will be responsible for providing administrative, finance and audit support to individuals, teams and projects in the NAT.

Specifically, it will include:-

Human Resource Development

Recruiting and developing manpower.

Business area support

Manage administrative processes.

Investigate and resolve problems.

Manage calendars.

Prepare, review and send correspondence, materials and reports.

Meetings, conferences, event planning

Coordinate all necessary logistics for different working groups internal team and external meetings with minimal supervision.

Identify needs for contractual agreements in relationship to the event, processes, contracts and purchase orders.

Record keeping/information processing/reporting

Create and edit documents, databases, websites, or other business software as required.

Create and maintains records, logs, files, and forms including project records, departmental documentation and expenses.

Administrative processes

Identify potential process issues and opportunities for process improvements.

Implement solutions, or recommend changes and escalate as appropriate.

Project management process

Make adjustments to project plans based on completed work and changing priorities, change due dates and bring attention to possible issues.

Monitor, update and report on projects goals, deliverables and schedules.

Coordinate and update established elements of project plan.

Business processes

Coordinate and assist in the development, organization, standardization and inventory of process maps and SOPs.

Revise, develop, streamline and standardize processes and the development of templates.

Bidding

Coordinate with internal and external sources to obtain bids for outside printing, office equipment and/or supplies.

Finance and Audit

The main work will include auditing, invoicing and supporting backup to ensure accuracy and working with the IT Governance staff to achieve maximum value and cost improvement measures. Month-end close, financial forecast update, and ad-hoc financial analyses of labor, print, freight, and postage expenses. Ensure that cost drivers and budget expenses are well documented and tracked for the budgeting and monthly tracking. Provide related expense analyses such as comparison to prior period and budget, unit cost trend, etc.

Responsibilities:

- Review invoicing and support to ensure accuracy and compliance with contract terms

- Researching and recommending strategies for cost reduction or value improvement within the contract

- Assist as needed with IT Governance with audits or other ad hoc requests

- Perform other duties as assigned

- Provide monthly budget variance explanations and forecast updates.

- Data mining and accounting charges and budget variances.

- Perform special analyses such as productivity trend analysis, cost driver changes, etc.

- Maintain Supply Chain area cost estimation control log.

- Understand new financial systems and reporting.

7. Student Support

Respond to, general student inquiries, and complaints. Project a professional image through phone and/or e-mail interaction. Response may be to inbound telephone calls, paper mail or fax and/or e-mail. Responsible for non-phone processing functions involving clerical and/or research activities. Also complete detailed tasks associated with data capture, quality control and point of contact for one or more internal and external clients.

Provide Services for Students with Disabilities in ensuring that students receive appropriate testing accommodations and scores for JEE (Main). Activities include test material reconciliation, test taker record maintenance, and responding to cases from customer inquiries.

8. IT

To provide IT support to all departments

- Update/create testing centres for computer based tests

- Help logistics department to do its work efficiently

- Provide scanning, data processing services of very high quality

- Work towards bringing in more transparency in test administration

Implementation Schedule

For a smooth implementation of the proposal, a phase-wise implementation schedule is proposed.

Phase-I   (Two months)

- Identification and finalization of location of proposed Agency.

- Provision of required infrastructure and physical facilities at the Agency

- Appointment of key position holders/professionals/ senior officers and supporting staff for the Agency.

- Initiation of professional development in areas of curriculum, assessment etc.

- Planning and budgeting for one and more years so as to have a perspective plan.

- Utilizing the services of Experts/Consultants

Phase-II (Six months)

- Selection and deployment of additional staff.

- Initiation of projects and drawing out of the plan for first year.

- Building up library and documentation Agency

- Initiation of development of materials

- Initiation of publication both in electronic and print form.

Phase-III (one Year)

- Conduct of fist assessment

- Conduct of research activities related to students' learning and teacher competence

- Development and printing of documents for test items

- Development of projects and action plan for next two years.

Phase-IV (Two Years)

- Conduct of initial professional development and leadership programmes.

- Organization of conferences for gaining international experiences

- Development and printing of publications on entrance examination and Students' competence.

- Conduct of research studies related to student's assessment.

- Conduct of additional professional development programme and enrichment activities.

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