PARLIAMENT OF INDIA
RAJYA SABHA

DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE ON EDUCATION, WOMEN, CHILDREN, YOUTH AND SPORTS

THREE HUNDRED AND FORTY FIRST REPORT ON REVIEW OF EDUCATION STANDARDS, ACCREDITATION PROCESS, RESEARCH, EXAMINATION REFORMS AND ACADEMIC ENVIRONMENT IN DEEMED/ PRIVATE UNIVERSITIES/OTHER HIGHER EDUCATION INSTITUTIONS

(Presented to Hon'ble Chairman, Rajya Sabha on 4th July, 2022)
(Forwarded to Hon'ble Speaker, Lok Sabha on 4th July, 2022)

Rajya Sabha Secretariat, New Delhi
July, 2022/Ashadha,1944(Saka)

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सत्यमेव जयते

Rajya Sabha Secretariat, New Delhi
July, 2022/Ashadha,1944(Saka)

CONTENTS

*
To be annexed later

COMPOSITION OF THE COMMITTEE
(Constituted *w.e.f.* 13thSeptember, 2021)

1.   Dr. Vinay P. Sahasrabuddhe   -   Chairman

RAJYA SABHA
2.   Shri R. S. Bharathi
3.   Shri. Bhubaneswar Kalita
4.   Shri Vishambhar Prasad Nishad
5.   Shri Bikas Ranjan Bhattacharya
6.   Shri Gopal Narayan Singh
7.   Shri K.C. Ramamurthy
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10.   Ms. Sushmita Dev*

LOK SABHA
11.   Shri Rajendra Agrawal
12.   Shri D. M Kathir Anand
13.   Dr. Dhal Singh Bisen
14.   Shri Santokh Singh Chaudhary
15.   Shri Lavu Sri Krishna Devarayalu
16.   Shri Rajveer Singh (Raju Bhaiya)
17.   Shri Sangamlal Kadedin Gupta
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19.   Dr. Jaisiddeshwar Shivacharya Mahaswamiji
20.   Shri Asit Kumar Mal
21   Shri Anubhav Mohanty
22.   Shri Balak Nath
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25.   Shri Ratansinh Magansinh Rathod
26.   Shri Jagannath Sarkar
27.   Shri Vishnu Dutt Sharma
28.   Dr. Arvind Kumar Sharma
29.   Shri Dharambir Singh
30.   Shri S. Venkatesan
31.   Smt. Prathibha Singh#

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* Nominated w.e.f. 27.09.2021
# Nominated w.e.f. 07.02.2022

SECRETARIAT

Shri Sunil Dutt Nautiyal, Joint Secretary
Shri A. K. Mallick, Director
Shri Har Prateek Arya, Deputy Secretary
Smt. Oindrila Roy, Deputy Secretary
Shri Arun Bakshi, Under Secretary
Shri Rohit Kumar Mishra, Committee Officer
Shri Agam Mittal, Assistant Committee Officer

PREFACE

I, the Chairman of the Department-related Parliamentary Standing Committee on Education, Women, Children, Youth and Sports, having been authorized by the Committee present this Three Hundred and Forty First Report of the Committee on the subject "Review of education standards, accreditation process, research, examination reforms and academic environment in Deemed/Private Universities/other Higher Education Institutions".

2.   As Higher Education in India is up for an overhaul with the National Education Policy 2020 bringing in multi-dimensional changes-right from the regulatory framework to curriculum structure and research environment, the Committee had decided to look at the subject and try to identify the issues which confront the Higher Educational Institutions (HEIs) as the policy directions under NEP-2020 are being implemented. The Committee heard the views of the Department of Higher Education, Ministry of Education, and representatives of University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Board of Accreditation (NBA), National Assessment and Accreditation Council (NAAC), Association of Indian Universities (AIU) besides Vice Chancellors/ Directors of Private/ Deemed Universities in its meeting held on 9th June, 2022. Besides this, the Committee in order to gain first-hand experience and have deeper insights towards understanding the issues and challenges faced by the Higher Education Institutions (HEIs) visited IIT, Guwahati, IIT, Bombay, Indian Institute of Science (IISc), Bangalore, Central Agricultural University and National Sports University, Imphal and SNDT Women's University, Mumbai and interacted with the Directors/ Vice Chancellors. Views of representatives of Gauhati University, Assam Science and Technology University, GuwahatiCollege of Architecture and Planning, Gauhati Medical College and Hospital, Manipur University, Institute of Chemical Technology (ICT), Mumbai were also heard. The Committee also interacted with various Public Sector Banks on the issue of funding of education sector to understand the guidelines/ issues concerning it.

3.   While drafting the Report, the Committee relied on the following documents along with the oral submissions made before the Committee:
  (i)   Background note and replies to the questionnaire submitted by the Department of Higher Education and bodies like UGC, AICTE, NAAC, NBA, Banks;
  (ii)   National Education Policy-2020;
  (iii) Representatives from Deemed and Private Universities and their written submissions; and

(iv) Submission and presentation made by Institutes of Higher Education which the Committee visited.

4.   The Committee wishes to place on record its gratitude to the representatives of the Ministries/Departments for furnishing necessary information/documents and rendering valuable assistance to the Committee in its deliberations. The Committee also wishes to express its gratitude to all the distinguished persons who appeared before the Committee and placed their valuable views on the Subject and furnished written notes and information in connection with the examination of the Subject.

5.   For the facility of reference and convenience, the recommendations of the Committee have been presented in bold letters in the body of the Report.

6.   The Committee considered the Draft Report and adopted the same in its meeting held on the 20th June, 2022.

NEW DELHI
20th June, 2022
Jyeshtha 30,1944 (Saka)

Dr. Vinay P. Sahasrabuddhe
Chairman
Department-related Parliamentary
Standing Committee on Education,
Women, Children, Youth and Sports

ABBREVIATIONS

AI	Artificial Intelligence
AICTE	AllIndia CouncilforTechnicalEducation
AMS	Academic Management System
ASTU	Assam Science & Technology University
CAG	Comptroller & Auditor General
CAU	Central Agricultural University
CBCS	ChoiceBasedCredit System
CEC	ConsortiumofEducationalCommunications
CeNSE	Centre for Nano Science and Engineering
CeRA	Consortium for e-Resources in Agriculture
CSR	Corporate Social Responsibility
CTYE	Catch Them Young for Engineering
CUET	Common University Entrance Test
DARE	Department of Agricultural & Research Education
DoHE	Department of Higher Education
DRDO	Defence Research and Development Organisation
DST	Department of Science and Technology
DVV	Data Validation and Verification
ECLGS	Emergency Credit Line Guarantee Scheme
EOC	EqualOpportunityCells
GATI	Gender Advancement for Transforming Institutions
GCAP	Guwahati College of Architecture & Planning
GER	GrossEnrolmentRatio
GIAN	GlobalInitiativeofAcademicNetworks
HEFA	HigherEducation FinancingAgency
HEGC	Higher Education Grants Commission
HEI	Higher Education Institution
ICT	InformationandCommunicationTechnology
ICT	Institute of Chemical Technology
IDP	Institutional Development Plan
ICAR	Indian Council of Agricultural Research
IIIT	IndianInstituteofInformationTechnology
IISc	Indian Institute of Science
IISER	Indian InstituteofScienceEducationandResearch
IIIPRS	Indian InstituteofIntellectualPropertyRightsStudies
IIT	IndianInstituteofTechnology
IIQA	Institutional Information for Quality Assessment

IMPRINT	ImpactingResearchInnovationandTechnology
LOCF	Learning Outcome Based Curriculum Framework
MAHE	Manipal Academy of Higher Education
MOOCS	MassiveOnlineOpenCourses
NAAC	National Assessment and Accreditation Council
NAAS	National Academy of Agricultural Sciences
NABH	National Accreditation Board for Hospitals & Healthcare Providers
NABEEA	Network of Accreditation Bodies for Engineering Education in Asia
NBA	National Board for Accreditation
NAHEP	National Agricultural Higher Education Project
NERF	Nirma Education and Research Foundation
NHEQF	National Higher Education Qualification Framework
NIRF	NationalInstitutionalRankingFramework
NIT	NationalInstituteofTechnology
NMEICT	NationalMissiononEducation ThroughICT
NQRI	NationalQualityRenaissanceInitiative
NSQF	NationalSkillQualificationFrameworks
NSU	National Sports University
NTA	National Testing Agency
ODL	Open Distance Learning
PMMMNT	PanditMadanMohanMalviya NationalMission onTeachers andTeaching
PPP	PublicPrivate Partnership
QIP	Quality Improvement Programme
RKMVERI	Ramakrishna Mission Vivekananda Educational and Research Institute
RUSA	RashtriyaUcchatarShikshaAbhiyan
SDG	Sustainable Development Goals
SID	Society for Innovation and Development
SNDT WU	ShreematiNathibaiDamodarThackersey Women's University
SSR	Site Survey Report
SWAYAM	Study Webs of Active–Learning for Young Aspiring Minds
TIFR	Tata Institute of Fundamental Research
UAY	UchhatarAvishkar Yojana
UGC	UniversityGrantsCommission
VR	Virtual Reality

<div align="center">**REPORT**</div>

1. INTRODUCTION:

1.1 Since time immemorial, India has been a seat of learning especially higher education. The ancient Indian universities of Nalanda, Vikramshila, Vallabhi and Takshashila stand testimony to this fact which had thousands of students from within the country and across the world pursuing studies in the multidisciplinary environment. India was known as Vishwa Guru as far as centre for higher learning was concerned. The Indian education system produced great scholars like Aryabhata, Varahamihira, Charaka, Susruta, Bhaskaracharya, Panini, Patanjali, Maitreyi, Gargi and many others who made valuable contributions to world of knowledge in fields as diverse as mathematics, metallurgy, astronomy, medical science etc. The originality of scientific and mathematical knowledge of the country fascinated the world.

1.2 Keeping in tune with its illustrious past, India, after attaining independence, decided to set-up several institutions which imparted higher education to cater to the needs of the country and helping in the nation building. In the process, it has also started strengthening existing reputed Higher Education Institutions (HEIs). Some of these higher institutions were created under the Act of Parliament and given the tag of 'institute of national importance'. Significant developments have been made in the fields of higher education since then, however, much remains to be done to bring back India's glorious past of the great Indian tradition of education to create well-rounded and innovative individuals to enable the socio-economic transformation of the country besides re-establishing India's position and status as centre of higher learning. Refurbishing of the Nalanda University in the recent past is an example of restoring our glorious past of higher learning besides strengthening institutions such as IITs, IIMs and other research centres.

1.3 The higher education plays a significant role in imparting knowledge and developing skills thereby empowering people which lead to the growth of economy and contribute to the national building. Hence, emphasis has been given to the pursuit of higher education to make the country a robust knowledge hub. Gradually, India has once again started moving towards becoming a knowledge economy and society. Consequently, more and more youth aspiring for higher education are joining such institutions.

1.4 The aim and objective of higher education is to develop good, thoughtful, and creative individuals who in the course of their higher studies not only become out of box thinkers but also contribute to the well being of society. Thus, a quality higher education must enable personal accomplishment and enlightenment, constructive public engagement and productive contribution to the society. Higher education must form the basis for knowledge creation and innovation thereby contributing to the national

economy. Quality higher education, therefore, not only creates opportunities for individual employment but also contributes towards prosperous nation in all its dimensions. It symbolizes the progress of a nation and social and economic well-being of the society at large.

1.5 Thehigher education segment in India has tremendous potential for growth, and offers viable investment avenues for private sector and foreign institutions. The Government has madeefforts to reform the sector by overhauling the regulatory framework and enabling access to education for all.

1.6 The knowledge landscape is undergoing rapid change in the presentday world. Massive changes in the scientific and technological fields such as artificial intelligence, data analytics and learning by machine, robotics etc. will not only wipe out unskilled jobs but also lead to increasing demand for skilled manpower involving mathematics, computer science and data science coupled with multidisciplinary abilities across physical science, social science and humanities. The rise in pollution, infectious disease, shortage of food and energy resources world-wide will also lead to requirement of skilled manpower with micro-level learning. In the present era of changing employment landscape and global ecosystem, the emphasis has shifted on critical thinking and analysis process rather than simply rote learning, from not only what to learn but how to learn. Today's requirement of education, therefore, is to shift the Pedagogy towards more holistic, experiential and enquiry driven coupled with matching curriculum. The other important objective of education is to not only create an environment conducive to overall growth but also prepare the people for a gainful employment as well.

1.7 It has also been felt that the methods of evaluating the knowledge and performance of students require improvement so as to do away with the present system of rote-learning to create passion for knowledge and understanding. The need is felt to have a unified and equitable system of evaluation process instead of multilevel and separate discipline based evaluation to bring more equity into the system.

1.8 Another significant aspect in the reforms of educational standards is the accreditation process which has evolved over a period of time. It was started by the University Grants Commission in 1994 in India in pursuance of the recommendations made by the National Policy of Education, 1986 and the Programme of Action (POA), 1992 which lay special emphasis on evaluating the quality of higher education in India. Since then, this process has undergone substantial change and has acquired a status which determines the quality of education in higher institutes. What furthermore is required to be done and achieved will be the focus area of this study as well.

1.9 It is against this perspective that it becomes all the more imperative to strive for major reforms in the education standards to bridge the gap between the present education ecosystem and current state of learning outcomes vis-s-vis what is required

and aspired for, so as to bring quality, equity and integrity of highest standards. The aspiration is also towards making the Indian education system at par with global standards so as to attract best of talents which will go a long way in taking the country to greater height of development and prosperity.

1.10 It is briefly against this backdrop but not limited to, the Committee on Education, Women, Children, Youth & Sports (EWCY&S) decided to review the present education standards in various higher educational institutes of the country, reforms which are presently required in the educational ecosystem, examination process, accreditation process, research standards and academic environment in general in Higher Education Institutions (HEIs). It is the endeavour of the Committee to suitably incorporate the vision and objectives of NEP-2020 while broad basing its observations and recommendations based on interactions the Committee has had with several institutes of higher education across the country and written submissions made by the Government organizations and administrative bodies under it.

1.11 In the following chapters, each sub-topic of the subject under study will be minutely scrutinized based on the written submissions, first-hand interactions with stakeholders and observations of the Committee followed by recommendations which the Committee propose to make.

2.   National Education Policy (NEP)-2020

2.1   Realizing the pertinent need for the Indian higher education system to be re-adjusted and revamped to meet the emerging requirements and to equip students for a professional life towards meeting the increasing need for creative, multidisciplinary, and highly skilled workforce for employment, some of the key reforms introduced under the vision of NEP 2020, include:

2.1.1 Quality Universities and Colleges: NEP 2020 envisions to introduce certain key changes to the higher education system, which *inter alia* include:

a. moving towards a higher educational system consisting of large, multi-disciplinary universities and colleges, with at least one in or near every district;
b. moving towards faculty and institutional autonomy;
c. re-vamping curriculum, pedagogy, assessment and student support for enhanced student experiences;
d. establishment of a National Research Foundation to fund outstanding peer-reviewed research and to actively seed research in universities and colleges;
e. governance of higher education institutions by highly qualified independent boards having academic and administrative autonomy; and
f. increased access, equity, and inclusion through a range of measures, including open schooling, online education and Open Distance Learning,

keeping in view the needs of learners with disabilities and substantial increases in scholarships at private/philanthropic universities for disadvantaged and underprivileged students.

2.1.2 Institutional Restructuring and Consolidation: NEP 2020 intends to end the fragmentation of higher education by transforming higher education institutions into large multidisciplinary universities and colleges, each of which will aim to have 3,000 or more students. The idea is to build vibrant communities of scholars and peers, break down harmful silos, enable students to become well-rounded across disciplines (including artistic, creative and analytic subjects as well as sports), develop active research communities across disciplines (including cross-disciplinary approach) and increase resource efficiency, both material and human across higher education.

2.1.3 Shift Towards Holistic Education: NEP 2020 advocates for promotion of holistic education to ensure well rounded development of students. It is thus proposed that multidisciplinary universities and colleges will facilitate the move towards high-quality education with flexibility in curriculum and engaging course options being developed and offered to the students. The higher education system is thus proposed to have multidisciplinary institutions of higher learning with high quality teaching, research, and community engagement. All higher education institutions will move towards becoming large multidisciplinary institutions with programmes across disciplines and fields, offered either in their institutions or through higher education institutions clusters.

2.1.4 Internationalization: NEP 2020 focuses on promoting India as a global study destination providing premium education at affordable costs. It is thus intended that high performing Indian universities will be encouraged to set up campuses in other countries and similarly select universities will be permitted to operate in India. Research collaboration and students exchange programmes between the Indian institutions and global institutions will be promoted and the credits acquired in foreign universities will also be permitted to be counted for award of degree.

2.1.5 Teacher Education: Recognizing the importance of creating a team of teachers that will shape the next generation, NEP 2020 lays equal emphasis on revamping teacher education as well. The teacher education needs to be conducted within composite multidisciplinary institutions having departments of almost all subjects.

2.1.6 Professional Education: NEP 2020 envisages that professional education will become an integral part of the overall higher education and thus it must also significantly involve critical and interdisciplinary thinking and research. Thus, the practice of setting up stand-alone technical universities, health science universities, legal and agricultural universities or institutions in these fields shall be discouraged and all existing stand-alone professional education institutions will have to become multi-disciplinary institutions by 2030, either by opening new departments or by operating in

clusters.

2.1.7 Promoting High Quality Research: NEP 2020 focuses on a comprehensive approach for transforming the quality and quantity of research in India. Thus, to focus on research and promote research culture in all higher education institutions in an interrelated and coordinated fashion, NEP 2020 provides for setting up of a National Research Foundation (NRF) which would bring a quantum jump in funding and support for research. The overarching goal of NRF shall be to enable a culture of research to permeate through universities and higher education institutions across India.

2.1.8 Transforming Regulatory System of Higher Education: Presently, the regulatory system has been rife with very basic problems, such as heavy concentrations of power within a few bodies, conflicts of interest among these bodies and a resulting lack of accountability. NEP 2020 mandates for setting-up of a common regulatory regime for the entire education sector, eliminating duplication and disjunction of regulatory efforts. A single regulator, the National Higher Education Regulatory Authority (NHERA) will be set up to regulate in a 'light but tight' and facilitative manner.Separately, a new General Education Council (GEC) shall also be set up to frame expected learning outcomes for higher education programmes, also referred to a 'graduate attributes'. A National Higher Education Qualification Framework (NHEQF) will be formulated by the GEC and it shall be in sync with the National Skills Qualifications Framework.

2.1.9 Higher Education Grants Commission (HEGC): HEGC will be created which will take care of funding and financing of higher education based on transparent criteria including the Institutional Development Plan (IDP) prepared by the institutions and the progress made in the implementation of the IDPs. HEGC will be entrusted with disbursement of scholarships and on developmental funds for starting new focus areas and expanding quality programme offerings in HEIs across disciplines and fields.

3. STATUS NOTE BY DEPARTMENT OF HIGHER EDUCATION, MINISTRY OF EDUCATION

3.1 EDUCATION STANDARDS, RESEARCH AND ACADEMIC ENVIRONMENT

3.1.1 It has been submitted that the Ministry of Education (MoE) and the University Grants Commission (UGC) have taken various steps to promote inclusive reach of Higher Education and Research Studies which include establishment of Educational Institutions and enabling digital reach of higher education and during the last three years, 141 universities have been established. It has been informed that to meet the growing demand of highly skilled technical manpower, there are 23 IITs functioning in the country as on date, which impart world class education in various disciplines of science, technology and engineering. Also, in order to reduce regional imbalance in imparting quality technical education in the country, six new IITs, out of the total

23,were established by the Government, which commenced their Academic sessions from year 2015/2016 and the establishment of these new IITs has, on one hand given an opportunity to more number of students to get quality education and on other hand has taken a step towards enhancing technical and research output of the country.

3.1.2 The Department informs that to complement the renewed focus of the Government on developing indigenous R&D capabilities, boosting manufacturing and creating a successful startup culture in the country, following steps have been taken:

a. **Research Parks:** Research Parks are being established in various IITs and IISc. Research Park at IIT Madras and Kharagpur are already fully functional and the one at IIT Gandhinagar is under construction with funding from Department of Science and Technology. Research Parks at IIT Bombay, IIT Delhi, IIT Kanpur, IIT Guwahati, IIT Hyderabad and IISc Bangalore are in various stages of construction.

b. **Impacting Research and Innovation Technology (IMPRINT):** IMPRINT is a flagship national initiative of the Government,which aims at providing solutions to the most relevant engineering challenges and translating knowledge into viable technology in ten selected technology domains, viz. health care, energy, sustainable habitat, Nano technology hardware, water resources and river systems, advanced materials, Information and communication technology, manufacturing, security and defence, and environmental science and climate change. It is a pan IITs and IISc Joint Initiative seeking to develop a roadmap for research. 142 research projects at a total cost of Rs.320.78crore for 3 years with joint funding by MoE and various participating Ministries/Departments are currently under execution under IMPRINT-I. Out of 142 projects, 29 projects have achieved their objectives, prototypes are ready for 42 projects and rest projects are being monitored regularly so as to achieve the objectives in the extended period, if needed. IMPRINT-II was formulated with a slightly modified strategy by merging the schemes IMPRINT and UchhatarAvishkar Yojana (UAY). The projects under IMPRINT-II will be funded jointly by MoE and DST in the ratio of 50:50 by creating a joint corpus. Other participating Ministries/ Industries may also volunteer to fund the projects relevant to them. Details of the projects approved and cost thereof have been shared and are as under: -

Phases	Project	Cost (In Cr.)
IMPRINT-II(A+B)	125	104.58
IMPRINT-II-C	51	41.18
TOTAL	**176**	**145.76**

Calls for proposals under IMPRINT-II-C-2 have been made by Science and Engineering Research Board (SERB) under DST in consortium mode, which are under different stage of evaluation.

c. **UchhatarAvishkar Yojana (UAY):** UAY functions towards promoting innovation of a higher order that directly impacts the needs of the Industry and thereby improves the competitive edge of Indian manufacturing. The project envisages collaboration between the academia and industry – within or outside India. The funding pattern of the projects selected is 25% by Industry; 25% by participating Department/Ministry; and 50% by MOE. Currently, 136 projects at a total cost of Rs. 360.50 crore with joint funding by MOE, participating Ministries and Industry are currently under execution. Under the scheme, 57 Projects have since been completed.

3.1.3 Improving Gender Balance: It has been informed that by implementing the recommendations of the Committee that was formed under the chairmanship of Director, IIT-Mandi, with a view to improving female enrolment in the B.Tech. Programmes in IITs, the female enrolment in B.Tech. Programmes in IITs during the year 2018, 2019 & 2020 increased to 15.29%, 18% and 19.8 % respectively. Inthe year 2021, the female enrolment in B.Tech. was 19.72% by creating 1534 supernumerary seats.

3.1.4 Prime Minister's Research Fellowship: The Department informs that in order to attract best talent for undertaking research in the frontier areas of science and technology, preferably those addressing the national requirements, a maximum of 3,000 most talented students from all recognized Universities/Institutes will be selected as per PMRF guidelines to enroll in the Ph.D. program in IITs/IISc/IISERs and selected CUs/NITs (in NIRF top 25) and would be incentivized by providing attractive rates of fellowship. Also, in addition, a research grant of Rs.2.00 lakh per year for a period of 5 years will be given to each fellow to meet the cost of presenting research papers. It is further informed that the Scheme has been appraised by the Expected Family Contribution (EFC) and approved by the Union Cabinet in its meeting held on 07.02.2018 and as on date, 1509 fellows have been admitted under the scheme, who are pursuing Ph.D. programmes in various Institutes in the country.

3.1.5 ASEAN Fellowship Scheme: It has been informed that under this Scheme,the competent authority has approved grant of upto 1000 fellowships to students of ASEAN countries to pursue integrated Ph.D. programmes in the IITs, at a total outlay of Rs. 300 cr. for 7 years (3 batches). For the students admitted, fellowships are provided at the same rate as Indian students, along with the yearly research grant, as applicable. The IITs make provision to cover living expenses of the selected students

from their own resources. So far in three rounds, 65 students have been selected under the Scheme but owing to Covid pandemic worldwide, 35 students have joined in online mode (out of which 14 have been able to join their respective institutions in the country) and other students have either deferred or dropped after enrolling.

3.1.6 Patent by IITs: It is informed that1535 patents have been filed/ granted/ registered by 23 IITs in the last 3 years. Out of these, 69 patents have been converted into products and processes, which have benefitted the country. The total commercial value of these patents that have become commercially viable is Rs. 1321.17 lakh. The Department submits that IITs are institutes of national importance and have been front runners in the field of research and innovation that have benefitted industry and as well as society. It was observed that these IITs leading the patents generation are having all the components such as IPR Cells/Technology Transfer Cells, dedicated IPR Policy/Guidelines for engaging collaborative research with research laboratories and industries. They also have startup policy for new entrepreneurs and a dedicated incubation cell for successful commercialization.

3.1.7. Digital University: It has been informed that in the Union Budget 2022-2023, establishment of Digital University has been announced. This University will provide access to students across the country for world-class quality universal education with personalized learning experience at their doorsteps. The Department of Higher Education, in consultation with University Grants Commission (UGC), All India Council for Technical Education (AICTE) and other stakeholders has initiated the process to ensure the early start of this digital university.

3.1.8 Research Promotion Scheme (RPS): This Schemeaims to create research ambience by promoting research in technical disciplines and innovations in established and emerging technologies. The objective of this scheme is to create and update the general research capabilities of the faculty members of the various Technical Institutes. Institutions are provided funds for this scheme limited to Rs. 25 Lakhs.

3.1.9 Indian Knowledge System: It has been informed that the Department of Higher Education, has established an Indian Knowledge System (IKS) Division at AICTE with a vision to promote interdisciplinary research on all aspects of Indian Knowledge System, to preserve and disseminate IKS knowledge for further research and societal applications.

3.1.10 IDEA- LAB: The Department has informed that AICTE has launched a scheme on January 1, 2021 to establish AICTE-IDEA (Idea Development, Evaluation & Application) Lab in the technical institutions to support the new age learning and 21st century skills and encouraging students for application of Science, Technologies, Engineering and Mathematics (STEM) fundamentals towards enhanced hands-on experience, learning by doing and product visualization. It has been submitted that

AICTE co-funds the 24x7 IDEA Lab, providing up to 50% of the project cost, not exceeding Rs. 55 lakh; the remaining amount has to be brought by the college from the industry/ any other source.

3.1.11 Scheme for Transformational and Advanced Research in Sciences (STARS): Department of Higher Education informed that this new scheme was launched February, 2019 with the objective to provide funding to faculty of Higher Educational Institutions for research projects in basic sciences which are inter-disciplinary and translational in outcomes. Also, the projects need to be India-centric and focused on socially relevant research. The basic thrust domains of the Scheme include Physics, Chemistry, Biological Sciences, Nanosciences, Data Sciences & Mathematics and Earth Sciences. The scheme also has a provision to encourage projects from talented researchers from eligible institutions in Tier-II cities and below. It has further been informed that a total budget of Rs. 250 crores have been allocated for the Scheme for a period of three years, with additional two years for monitoring and presently the Apex Committee (headed by Secretary (HE)), has approved a total of 141 project proposals across 37 Institutions, as recommended by the Domain Expert Committee for funding. Also, in the financial year 2019-20 an amount of Rs. 33 Crores were released for the 141 projects approved for funding in the first round.

3.1.12 Pursuing of two academic programmes simultaneously: In this respect the Department has informed that NEP 2020 policy envisions imaginative and flexible curricular structures to enable creative combinations of disciplines for study, that would offer multiple entry and exit points, thus, removing currently prevalent rigid boundaries and creating new possibilities for life-long learning and centrally involve critical and interdisciplinary thinking. Keeping this in view, UGC has issued guidelines in April, 2022 that a student can pursue two full time academic programmes in physical mode provided that in such cases, class timings for one programme do not overlap with the class timings of the other programme (other than Ph.D. programme).

3.2   EXAMINATION REFORMS

3.2.1 National Testing Agency (NTA): It has been informed that the National Testing Agency (NTA) was established as a premier, specialized, autonomous and self-sustained testing organization to conduct entrance examinations for admission/fellowship in higher educational institutions in a standardized method. In order to help the students to practice well for NEET (UG) and JEE (Main) entrance examinations, National Testing Agency (NTA) has launched a Mobile App 'National Test Abhyas' to facilitate candidates' access to high quality mock tests online free of cost. As per NEP-2020, the principles for university entrance exams will be similar. Thus National Testing Agency (NTA) will work to offer a high-quality common aptitude test, as well as specialized common subject exams in the sciences, humanities,

languages, arts, and vocational subjects, at least twice every year. It has further been mentioned that in pursuance of the National Education Policy, 2020, it has been decided to conduct common entrance test for admission in central universities from the academic year 2022-23 to reduce the burden on students, universities and the entire education system. The Common University Entrance Test (CUET) for undergraduate programme is to assess the students of different boards at the same level, giving them equal opportunity.

3.2.2 Examination Reforms-AICTE: It is informed that future engineering graduates not only need to be knowledgeable in his/her own discipline, but also need a new set of soft, professional skills and competencies. With a view for development of a suitable exam format, AICTE had constituted a committee in this regard and the Committee finalized the policy on Exam Reforms to be adopted by the Institutions and Universities and the same has been launched. The main recommendations of the Committee were:Courses on Artificial Intelligence (AI), Internet of Things (IoT), Block chain, Robotics, Quantum Computing, Data Sciences, Cyber Security, 3D Printing & Design and other emerging technological areas must be included in the UG/PG Program in Engineering.Greater focus is on multi-disciplining courses by reducing the seats in conventional disciplines and converting the existing seats into these courses. AICTE is conducting workshops on Exam Reforms for Controller of Examination, Deans and Senior Faculty members of various universities and institutions as well.

3.3 ACCREDITATION PROCESS

3.3.1 NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC): National Assessment and Accreditation Council (NAAC) is an autonomous body established by UGC to assess and accredit institutions of higher education in the country. NAAC assesses and accredits higher educational institutions, who apply for NAAC accreditation, using seven identified criteria to serve as the basis of its assessment procedures viz., Curricular Aspects, Teaching-Learning and Evaluation, Research, Consultancy and Extension, Infrastructure and Learning Resources, Student Support and Progression, Governance, Leadership and Management and Institutional Values and Best Practices. 8868 institutions have been accredited by NAAC as on 25.01.2022. NAAC accreditation process is being simplified [NAAC manual for Self Study Report (SSR) for affiliated & constituent college (UG, UG&PG) to reduce number of parameters to 57 from 96, as well as to address regional variations]. NAAC manual for provisional accreditation of colleges has been approved.

3.3.2 NATIONAL BOARD OF ACCREDITATION (NBA): It has been informed that National Board of Accreditation (NBA) was established in order to assess the qualitative competence of programs offered by technical institutions from Diploma to Postgraduate level in Engineering & Technology, Management, Pharmacy &Architecture, etc. It has been stated that Accreditation is process of quality assurance

and improvement, whereby a technical program is critically appraised to verify that the program continues to meet and/ or exceeds the norms and standards prescribed by the regulatory authority from timetotime. NBA accredits programs and not the institutions. Further, it has been stated that Network of Accreditation Bodies for Engineering Education in Asia (NABEEA) is a network of accreditation bodies in Asia and this network promotes engineering education and develops mutual cooperation towards better accreditation system in Asia. NBA acquired the membership of NABEEA in 2011. It is submitted that the number of programs accredited by the NBA during past five years has increased consistently (except for the year 2020-21 because of Covid 19-pandemic) as indicated below.

Financial Year	2017-2018	2018-2019	2019-2020	2020-21	2021-22
No. of Programs Considered for Accreditation	1076	1284	1323	765	1395

3.3.3 In regard to NEP-2020, it has been informed that a stage-wise mechanism for granting graded autonomy to colleges, through a transparent system of graded accreditation, will be established and colleges will be encouraged, mentored, supported, and incentivized to gradually attain the minimum benchmarks required for each level of accreditation. Over a period of time, it is envisaged that every college would develop into either an Autonomous degree-granting College, or a constituent college of a university - in the latter case, it would be fully a part of the university. With appropriate accreditations, Autonomous degree granting Colleges could evolve into Research-intensive or Teaching-intensive Universities, if they so aspire. Also, HEIs will have the autonomy and freedom to move gradually from one category to another, based on their plans, actions, and effectiveness. The Accreditation System will develop and use appropriately different and relevant norms across this range of HEIs. However, the expectations of high quality of education, and of teaching-learning, across all HEIs will be the same. All colleges currently affiliated to a university shall attain the required benchmarks over time to secure the prescribed accreditation benchmarks and eventually become autonomous degree-granting colleges. This will be achieved through a concerted national effort including suitable mentoring and governmental support for the same. Norms, standards, and guidelines for systemic development, regulation, and accreditation of Open Distance Learning (ODL) will be prepared, and a framework for quality of ODL that will be recommendatory for all HEIs will be developed.

4. A detailed Questionnaire was also sent to the Department of Higher Education, Ministry of Education seeking information on various aspects of the subject, especially from the perspective of NEP- 2020, and the information that has been shared therein comprises of the following points:

  (i)   Estimated Gross Enrolment Ratio (GER) in Higher Education in India is

27.1% which is calculated for 18-23 years of age group. For scheduled Castes, it is 23.4% and for Scheduled Tribes, it is 18.0%. GER for male population at all India level is 26.9% whereas for SC male it is 22.8% and 18.2% for ST male. Similarly, GER for female population at all India level is 27.3%, whereas for SC female it is 24.1% and for ST female it is 17.7%.

(ii)   NEP parameters have been incorporated in all Manuals for the process of Assessment and Accreditation like University Manual, Autonomous College Manual, and Affiliated Manual etc. from December 2021. Institutions accredited from December 2021 onwards have to make use of the latest manual only.

(iii)   UGC has initiated necessary measures to bring multidisciplinary education back to prepare students to develop deeper skills, to approach problems with broader perspectives etc. Some of the initiatives are formulation of a draft National Higher Education Qualification Framework (NHEQF), revision of the Choice Based Credit System and has draft Curricular Framework and Credit System developed for Four Year Under Graduate Programme and draft guidelines being developed to transform Higher Education Institutions in to Multidisciplinary Institution

(iv)   AICTE has taken various initiatives for improving education standards and promoting research in all spheres including examination reforms and academic environment in the country. AICTE has revamped the existing curriculum and launched outcome based model curriculum for Diploma, Undergraduate and Post Graduate Courses in Engineering and PGDM/MBA Courses. Student internship has been redefined and made mandatory whether in corporate world or at Institutions of National Importance, National Laboratories or in Development Sector. Universal Human Value Education has been made an integral part of Course Curriculum. Also, Model curriculum has been prepared for courses in Emerging Areas to be permitted in Engineering institutes from academic year 2020-21 like Artificial Intelligence (AI),Information of Technology (IoT),Block chain, Robotics, Quantum Computing, Data Sciences, Cyber Security,3D Printing & Design, Augmented Reality (AR)/Virtual Reality (VR) other emerging technological areas to be included in the UG/PG Program in Engineering. Besides this, AICTE has made provisions of awarding minor degree to students in B.Tech. courses if they earned 20 additional credits in new emerging areas in discipline and honuors degree to student in the same discipline if they earned 20addittional credits in new emerging areas pertaining to the same disciplines.

(v)   To motivate and encourage institutions to have accreditations of courses being conducted by them, technical institutions having at least is to have their 60% programs NBA accredited in next four years, else no extension of approval will be granted. Approximately, 327 Margdarshaks have been identified and trained to mentor the institutions. Eleven institutions have been selected under the scheme "Margdarshan". AICTE's Examination Reform Policy has been released and the sensitization of the same has also been carried out through

various webinars/workshops. Technical Institutions and Universities in the country have already been requested to adopt the Examination Reforms Policy. To facilitate this, Model Questions Paper and question bank has been developed/shared through AICTE by means of workshops in association with collaborating universities.

(vi)   Towards increasing the quality of education,Quality Mandate is UGC's initiative to address the major challenges faced by Higher Education. Some of the initiatives undertaken to fulfil the purpose are "Deekhasharambh"(a guide to Student Induction Programme), Learning Outcomes based Curriculum Framework (LOCF) in 31 Undergraduate subjects , JeevanKaushal -Curriculum for Life Skills, Credit course curriculum for 30 hours on "Fostering Social Responsibility Community Engagement of HEIs in India", policy document on "Enabling and Enhancing University and Industry Linkage", guidelines for Evaluation Reforms, policy document on 'Student Career Progression and Alumni Network', guidelines for Teacher Induction Programme "Guru Dakshta", PARAMARSH- a scheme of UGC to mentor institutions seeking National Assessment and Accreditation Council accreditation, MULYA PRAVAH – a guideline for inculcation of Human Values and Ethics in Higher Educational Institutions, SATAT - A framework for eco-friendly and sustainable university campuses, Handbook for Vice Chancellors - a ready reckoner guide for the essential knowledge domain required for the visionary functioning and book on Quality Mandate for Higher Education Institutions.

(vii)   Modernization & Removal of Obsolescence (MODROB) is ascheme to provide financial support to institutions to equip their laboratories with modern equipment and upgrade infrastructure facilities, keeping in view the rapid advancements in technology. Institutions were provided funds for replacement of obsolete equipment with modern, state-of-the art equipment to ensure quality of educational process. Funding for this scheme is limited to Rs.20 lakhs.

(viii) UGC has launched a new scheme STRIDE (Scheme for Trans-disciplinary Research for India's Developing Economy) to promote creation of new knowledge, inculcate innovative research culture and cognitive thinking and improve quality of doctoral research in the areas which are locally and socially relevant, nationally important and globally significant. STRIDE aims to identify young talent, strengthen research culture, build capacity, promote innovation and support trans-disciplinary research relevant to national development and to fund high impact national network projects in the identified thrust areas in humanities and human sciences and Indian knowledge systems.

(ix)   Taking note of the requirement for skill development among students, National Vocational Education Qualification Framework (NVEQF) which was later on assimilated into National Skills Qualifications Framework (NSQF) has been launched. Various Sector Skill Councils (SSCs) are developing Qualification Packs (QPs), National Occupational Standards (NOSs) and assessment mechanisms in their respective domains, in alignment with the needs

of the industry. In view of this, and in order to prepare an industry-ready work force, UGC has implemented three schemes namely, Community College, B.Voc degree programme and DeenDayal Upadhyay Kaushal Kendra, and facilitated Colleges and Universities to offer skill-based programmes such as B.Voc&M.Voc under National Skills Qualification Framework (NSQF).

(x) In order to internationalize the Indian higher education system and promote India as a global study destination, UGC issued the Guidelines on Internationalization of Higher Education in July, 2021. The Guidelines provide for establishment of Office for International Affairs and Alumni Connect Cell in the campuses of each University. In line with the vision of NEP, 2020, UGC has notified the UGC (Academic Collaboration between Indian and Foreign Higher Educational Institutions to offer Twinning, Joint Degree and Dual Degree Programmes) Regulations, 2022 in May, 2022.

(xi) The technical, medical, agricultural and sports education in all the universities are governed by their respective Statutory Councils. UGC specifies Degrees under Section 22 of the UGC Act 1956. The UGC Notification on Specification of Degrees 2014 and its Amendments issued from time to time are available on the UGC website.

(xii) UGC has developed guidelines on "Evaluation Reforms in Higher Educational Institutions". The document has been prepared with the help on an Expert Committee which provides a comprehensive view of evaluation, and also covers different types of assessment by considering requisite learning attributes. Adequate focus is also given to need for more proportion of testing based on internal assessment modes. The document has also touched upon the grading system used and to be considered. It also focuses on the moderation process and important aspects to be considered for conduct of moderation during evaluation process.

(xiii) Universities are autonomous institutions having autonomy to conduct their affairs pertaining to academic and administrative activities. UGC does not interfere in the day to day functioning of Universities that design and develop their own structure to ensure consistency, cohesiveness and coordination

5. ROLE AND CONTRIBUTION OF BANKS IN FUNDING OF HIGHER EDUCATION: The Committee also had interaction with representatives of various Banks on the issue of funding of education sector especially Deemed / Private Universities. The representative of StateBank of IndiasubmittedthatSBI is extending financial assistance to the Private College/ Deemed Universities based on the commercial viability of the project for creation of movable / immovable properties, furniture / fixtures / Lab equipment /College Buses etc. and repayment capability based on the cash flows. SBI has Consultancy Services Cell in each Local Head Office, which provide valuable inputs for validating the project so that redundancies, if any, are eliminated.

5.1 The Bank further added that at present, the Bank loans up to a limit of Rs 5.0 crores per borrower for setting up of Schools (Under Social infrastructure) is eligible for classification as Priority Sector advance. RBI may consider inclusion of Higher Education Institutions (HEI) with enhanced threshold up to Rs 100.00 crores under Social Infrastructure. It was further informed that during the last three Financial Years, Bank has undertaken 94 Corporate Social Responsibility (CSR) activities with an outlay of Rs 16.38 crores towards girl education and women empowerment, benefiting approx. 25,000 girl children and women. During the FY 2021-22, an amount of Rs. 22.80 cr was sanctioned for Education programs. Bank has reached out to 21,82,248 children and teachers to improve their learning outcomes during the last three years. Approximately 50% of these beneficiaries i.e. more than 10.00 lakh are girl children and female teachers.

5.2 The Indian Bank during the course of the meeting mentioned that reduced rate of interest for premier institutes likeIITs/IIMs/ISBs further giving some interest rebate to girl students is serviced during moratorium period.Bank provideseducation loans, not only for professional courses but alsoforvarious approvedcourses as under: -

(a) Approvedcoursesleadingtograduate/postgraduatedegreeandPGdiplomascon ductedbycolleges/universitiesrecognizedbyUGC/AICTE/ICMR/NAACaccred ited'A'ratedinstitutionsetc.

(b) Job oriented courses for studying part-time courses and approved by theappropriate authorities.

(c) Joborientedspecializedprogrammeslikemaritimecourseswhichareofferedinc ollaborationwithforeigninstitutions which maynotbehavingrecognitioninIndia.

5.3 The representatives of the UnionBank of India highlighting the role of Banks in helping Professional Education Institutions with their funding, in Engineering, Agricultural and other technical areas informed that the Bank is extending credit assistance to Professional Education Institutions for setting up of the institute/purchase of the equipment and also towards the working capital requirement. The representatives of the Union Bank of India on a query regarding whether the Education Sector was included under the ambit of the credit line guarantee scheme for small enterprises that was launched to provide relief to affected Sector due to the Covid pandemic, it was informed that there is no specific provision under ECLGS Scheme for educational institutions. However, eligible borrowers under ECLGS 1.0 with credit facilities up to Rs 50 crores shall include Educational Institutions also and accounts with sanction limit of Rs 2.86 crores have been extended the ECLGS supports by the Banks.

6. DEPOSITIONS

The under-mentioned officials from several stakeholder organizations appeared before the Committee to depose their views on the subject:

Sl. No.	Name and Designation	Organization
1.	Shri K. Sanjay Murthy, Secretary	Department of Higher Education, Ministry of Education
2.	Dr. M. P. Poonia, Vice-Chairman	All India Council for Technical Education
3.	Prof. Rajnish Jain, Secretary	University Grants Commission
4.	Prof. Amiya Kumar Rath, Adviser	National Assessment and Accreditation Council
5.	Dr. Anil Kumar Nassa, Member Secretary	National Board of Accreditation
6.	Prof. (Dr.) O. P. Kalra, Vice Chancellor,	SGT University
7.	Dr. Anup Kumar Singh, Director-General	Nirma University
8.	Shri Somnath Das, OSD	Manipal Academy of Higher Education
9.	Swami Atmapriyananda, Pro-Chancellor	Ramakrishna Mission Vivekanand Educational and Research Institute
10.	Dr. (Mrs.) Pankaj Mittal, Secretary-General	Association of Indian Universities

6.1 UNIVERSITY GRANTS COMMSSION (UGC)

Representative of the UGC in their deposition highlighted the role and domain of the UGC and the various initiatives that are being taken in respect of NEP-2020.It was mentioned that UGC is aligning all its activities, academic or in governance and also revisiting all the regulations, including those concerning Deemed Universities, to push forward the vision as outlined in the NEP-2020. The initiatives that were mentioned were Academic Bank of Credits, pursuing two academic programmes simultaneously, Internationalization of Higher Education, academic collaboration between Indian and foreign HEIs, Common Universities Entrance test, Study Webs of Active Learning for Young Aspiring Minds (SWAYAM), ODL and Online education etc. On the issue of criteria being adopted by the UGC to grant accreditation to the colleges and Universities,it was informed that NAAC, an Inter University Centre of UGC deals with accreditation and till 31.5.2022, number of Universities and Colleges that stand accredited by NAAC is 9059. It was also informed that at present there are 879 autonomous colleges and 126 Institutions Deemed to be Universities in the country. It

was also informed that UGC has not set up any internal Committees for monitoring the functioning of Central Universities. However, issues relating to improvement of quality of education, promoting research and innovation, faculty development, collaboration with the industry and research laboratories, effective use of technology in teaching-learning process, mandatory accreditation, etc. are periodically reviewed with Vice Chancellors of Central Universities by University Grants Commission (UGC) and Ministry of Education. With regard to capacity building of teachers in the higher education and providing autonomy to each and every higher educational institution in India, it was submitted that with an aim to maintain high standards of teaching in Universities and Colleges, the Scheme of Academic Staff Colleges (ASCs) were introduced in 1986-87. At present, there are 66 Human Resource Development Centres (HRDCs) (formerly known as ASCs) all over India. These HRDCs, so established, are conducting Orientation Programmesknown asGURUDAKSHTA for newly recruited faculty and Refresher Courses of two weeks duration for in-service teachers. Special courses in Gender Sensitization and Teacher Education are also been offered by the HRDC's. Also, UGC-Human Resource Development Centres facilitate effective systems to provide opportunities for professional and career development of teachers necessary for quality education and research so that they are well equipped and motivated to accept new challenges emerging from growth of new knowledge, international competitiveness and changing requirements of learners, especially in the institutions of higher education. It was also submitted that UGC has notified the regulations to promote autonomy in HEIs:

6.2 ALL INDIA COUNCIL FOR TECHNICAL EDUCATION(AICTE)

AICTE representatives stated that AICTE is basically meant for regulating technical education in the country such as engineering, management, arts, crafts, design, hotel management at the UG level, polytechnic level, and at PG level. Thus, AICTE is regulating entire technical education in the country and there are approximately 9000 institutes in the country. It was mentioned that as far as giving approval is concerned, in every institute, they are having an online mechanism.   There is no physical movement of any inspector and during Covid time they had taken the advantage of the situation and the requisite technology has been developed. It was submitted that their scrutiny process is completely online. It was mentioned that after 2017 Supreme Court order, deemed to be universities have also come under the purview of AICTE and they are also taking approval for their technical courses. It was also mentioned that efforts are to align all the activities, all the education system with the National Education Policy. Complete curriculum of courses, including management and engineering has been revamped and even the deemed to be universities or most of the State universities are following this model curriculum. Empowering the teachers is also an important task being performed and since 2020 around 2.5 lakh teachers in technical education have been trained, majority of them through online mode.

6.3 NATIONAL BOARD OF ACCREDITATION (NBA) and NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL(NAAC)

6.3.1 NBA: Representatives of NBA submitted that the National Policy on Education (NPE) 1986 recognized the need for a Statutory Body at the national level responsible for overseeing the growth and quality of technical education in the country. Accordingly, the All India Council for Technical Education (AICTE) was established by an Act of Parliament in 1987 and as a part of its programs and activities, National Board of Education (NBA) was first established by AICTE as one of its Boards with the mandate to undertake the periodic evaluations of technical institutions and programs on the basis of specified norms and standards as recommended by AICTE. NBA conducts evaluation of programs of technical institutions based on the prescribed evaluation criteria and parameters. This may include, but not limited to institutional vision, mission and objectives, organization and governance, infrastructure facilities, quality of teaching and learning, curriculum design and review, support services (library, laboratory, instrumentation, computer facilities, etc.) and any other aspect as decided by the Competent Authority of NBA. It was mentioned that NBA, has completely switched over to Outcome Based Accreditation by bringing in necessary changes in its process, parameters and criteria for accreditation and NBA accreditation process consists of the four stages and to proceed to the next stage the institute must complete the previous one. The stages are: Initial Stage, Pre-Assessment Stage, Assessment Stage and Post Assessment Stage (Decision-Making). It was also submitted that though there are no specific impediments; however, the NBA faces the obstacles of inadequate pool of evaluators having expertise in outcome-based accreditation and deputation of evaluators / experts by its parent University / institution as and when required, for conducting the programs.

6.3.2 Representative of NAAC submitted that NAAC was established in 1994 with the recommendations of the National Education Policy, 1986 and Programme of Action, 1992. The vision of NAAC is to make the quality the defining element of higher education in India through a combination of self-evaluation and external evaluations and increasing the assessment and accreditation process, collaborations, teaching/learning process. He submitted that the process followed is entirely robust and totally ICT driven. Representative of NAAC also submitted that they have analyzed with international criteria, which are more or less similar but our universities are lacking in the component called public perception and Indian universities are getting very less score on this component. It was explained that the parameter takes into account as to how many international students are, what is the student exchange programme with international community and international universities, how many international faculty members have visited a University and are teaching a course. On these aspects, our universities are getting minimum score. It was informed that the general challenges that NAAC faces are that oonce the HEI submit the IIQA/SSR/DVV they won't follow-up the portal & guidelines of NAAC, many times supporting documents are not provided

by the HEI's and sometime HEI's are not very serious while providing the supporting documents. It was submitted that NAAC have defined the benchmarks and standards for calculating the score of a particular metric and scaling the institution respectively. These benchmarks are measured in 0 to 4 likert scale. Score of A&A process is calculated by adding the value institution has scored with respect to each metric as categorized by benchmarks. Finally on the basis of the CGPA obtained by the institution in maximum possible score of 4.00, to the C letter grade,final grade is assigned on a seven-point scale standard ranging from A++. In order to sensitize the HEIs about implementation of NEP, NAAC has introduced the concept of "Institutional Preparedness for NEP" in the SSR profile section.

6.4   SECRETARY, HIGHER EDUCATION

Secretary mentioning the challenges that are faced by NBA and NAAC, stated that as on date, only 30 per cent of the universities were in the accreditation system, only 20 per cent of the colleges are there in the accreditation system. Thus, there is a long way to go as, out of 50,000 colleges, there were less than 9,000 colleges who are accredited. Accreditation is a procedure wherein standardization happens as to what minimum benchmarks are to be created. Thus, till large body of colleges are going towards an accreditation process, the realization of quality in this entire sphere will be hard to achieve as it is not mandatory at present.

6.4.1 He further submitted that National Education Policy, 2020, has proposed to go for a binary system which is an internationally accepted system wherein one is either accredited or not accredited and a timeframe has been given for that.So, the UGC has constituted a Committee under Prof. Sridhar. He has prepared a roadmap how you can go towards this binary accreditation and I think going forward that will be a line that will be taken. He clarified that accreditation is done only course-wise by NBA, while the NAAC is doing the institution-wise. He submitted that in the Higher Education Regulatory Commission Bill, one of the verticals will be the accreditation body and eventually all will merge to become one body for the entire country. Thus the roadmap is clearly defined and they will be going towards that procedure.

6.4.2 The other thing mentioned here is whether these common entrances are compulsory or not. On the aspect of improving quality, it is needed that the curriculum is up to date, and meeting the requirements of what the industry or what the sector requires. Another step is to ensure that we have the faculty to deliver that curriculum. On the issue of Indian Universities not figuring in top Universities, it was submitted that an assessment has been made for the last few years and hopefully the steps being taken will result in a turnaround.

6.5   SGT UNIVERSITY

6.5.1 The Sri Guru Gobind Singh Tercentenary (SGT) University was established under the Haryana Private Universities (Amendment) Act No. 8, 2013. The University is part of the Dashmesh Educational Charitable Trust, founded in 1999. SGT University, besides being in the top private universities in India, is also highly rated. SGT has received several awards including the Diamond rating from the QS-IGAUGE ranking. The University boast of having Asia's one and only National Reference Simulation Centre for Nursing & Medical Sciences, established in association with Jhpiego, Laerdal Medical India.

6.5.2 Vice-Chancellor, SGT University apprised the Committee of the number of Higher Education Institutions (HEIs) alongwith the enrolment in private universities which is 24.5% in 2019-20. He then suggested some reforms regarding Accreditation Processes such as streamlining the process for starting new courses and providing greater autonomy to universities; reviewing norms for enrolment of international students/ foreign collaborations and ensuring optimal use of infrastructure / learning resources within the University for various course running under different Regulatory Bodies. It was also informed that NAAC may consider accreditation of individual Academic Programme in addition to the current practice of Institutional Accreditation

6.5.3 He also suggested research related reforms such as UGC may consider the research proposals for competitive grant even from institutions not covered under Clause 12B of the UGC Act, establishment of Cluster Central Instrumentation Facility along with financial support and research journals in UGC-CARE list at the time of publication should be considered by the Accreditation Agency even if journal is removed from that list at a later stage. He also threw light upon the examination process and reforms therein and suggested that in Council-governed courses, the component of formative assessment may be significantly increased. In order to implement NEP 2020, some measures taken/to be adopted such as promoting Multidisciplinary and Interdisciplinary for Holistic Learning and Integration of Technology with Education & Administration were also highlighted.

6.6   NIRMA UNIVERSITY

6.6.1 Renowned industrialist and philanthropist Dr Karsanbhai K Patel, the founder of the Nirma Group of Industries, established the Nirma Education and Research Foundation (NERF) in the year 1994 with a vision to promote higher education and to provide excellent educational facilities to the youth in India. In 1995, Nirma Institute of Technology- affiliated to Gujarat University- was established by the NERF. It was followed by the establishment of Nirma Institute of Management in 1996.The University Grants Commission (UGC) duly recognized the University under Section 2 (f) of the UGC Act.

6.6.2 It was informed by Dr. Anup Kumar Singh, Director-General, that Nirma

University has recently been re-accredited by "A+" grade by the NAAC in its third cycle for the period 2022-27. It was also informed that the existing system of accreditation by both the national accreditation agencies, i.e., NAAC and NBA are satisfactory. However, the University is expecting an improved accreditation system by the proposed body, i.e., National Accreditation Council (NAC) under NEP-2020.

6.6.3 While deliberating upon the research and examination reforms, it was informed that the University has formed regulations to curb malpractices and maladministration in conducting examinations and deals strictly with unfair means during conduction of exams. Also, the University has formed various regulations for research, research ethics, policy for promotion of academic integrity, prevention of plagiarism, etc and they are in place.

6.6.4 For the academic year 2022-23, the University is in the process of implementing the NEP-2020. Accordingly, the programme structure of undergraduate programmes is revised to offer all the programmes with duration of four years. Nirma University has reframed the curricula on the lines of NEP-2020.It was also informed that in order to implement NEP 2020, the University has also revised the curricula of all undergraduate programmes based on the draft National Higher Education Qualification Framework notified by the UGC. In order to provide more flexibility in the curricula, provisions have been made to opt for Major and Minor in all the programmes. Further, the University is waiting for the final notifications from the UGC with regard to curricula, framework, multi entry and exit policy, implementation of Academic Bank of Credit, focus on interdisciplinary research, internationalization of higher education, higher flexibility to students, etc.

6.7 MANIPAL ACADEMY OF HIGHER EDUCATION (MAHE)

6.7.1 Manipal Academy of Higher Education (MAHE), an Institute of Eminence Deemed to be University, has its roots in setting up of its flagship medical college in 1953 by its founder Dr T M A Pai. While deliberating upon the educational standards and accreditation processes, it was informed by Dr. Somnath Das, Officer on Special Duty that MAHE is participating in the accreditations like NAAC, NBA, NABH, and NABL, including Institution of eminence alongwith participating in the NIRF ranking conducted by the Ministry of Education. MAHE is also complying with more than eight different regulatory bodies.

6.7.2 Some major challenges which were highlighted were maintaining the balance between quantitative and qualitative education requiring huge data gathering, uploading in multiple portals, multiple internal audits, and external audits/visits and continuous communication between different agencies including regulatory bodies, confusion with different formats, and expectations of different agencies.

6.7.3 It was also informed that presently, as many as 14 different regulatory bodies and professional councils, have been a major impediment and interfere with higher education systems and processes. It was suggested to have an overarching single regulatory body for all streams of higher education and a single accreditation body to avoid multiple documentation/duplication. Selected Institutions like Institutions of Eminence, Institutions of Excellence and Institutions of National Importance should have more autonomy and flexibility and should be less regulated and register themselves with the regulator and should be free to function with minimal supervision and inspections. However, any complaint against such institutions needs to be investigated.

6.7.4 To curb malpractices and maladministration in conducting exams, reforms such as digitization of examination and evaluation system, which includes biometric-based login-preventing impersonation, ensuring availability of the question paper synchronously for all the students at a predefined time and auto submission of answer scripts on time simultaneous question-wise valuation of answer scripts by internal/external evaluators were touched upon.With regard to research and examinations being conducted by the universities, it was informed that research to be a part of the curriculum for final year students, research ethics and integrity are to be strictly followed in the conduct and publishing of research, degrees in research as post-graduation in research can be initiated.

6.7.5 While touching upon the measures undertaken in view of implementing the NEP 2020 by Manipal University, it was informed that a Steering Committee was formed under the chairmanship of Vice Chancellor on 22nd October, 2020 to develop an implementation plan. The Steering Committee co-opted Ten Sub Committees, who were given the task of developing implementation plan for their respective allotted areas of NEP 2020 implementation. Further, four pillars for strategic implementation of NEP with focus on Academics, Research, and Innovation; online education and technology integration; faculty and leadership development and effective governance; liberal arts, humanities, teacher, and vocational education; internationalization and Equity and Inclusion in Higher Education and Student Support were highlighted.

6.8 RAMAKRISHNAMISSION VIVEKANANDA EDUCATIONAL AND RESEARCH INSTITUTE (RKMVERI)

6.8.1 Established in 2005, RKMVERI is an institution deemed-to-be university as declared by the Ministry of Human Resource Development (now Ministry of Education), Govt. of India, under Section 3 of University Grants Commission (UGC) Act, 1956. At present, it operates through four campuses situated at the following locations: Belur Math near Kolkata (main campus and headquarters), Coimbatore, Narendrapur (Kolkata) and Ranchi. The multi-campus university houses many departments organized under 5 schools, covering a diverse range of subjects such as

Sanskrit studies, physics, mathematics, computer science, yoga, rural and tribal development, agriculture, disability management, disaster management, etc. and conducting programmes at various levels ranging from undergraduate/diploma to doctoral.

6.8.2 Swami Atmapriyananda, Pro-Chancellor informed the Committee that creating awareness on emerging trends in Education, Special Education, Agriculture Education, and Fundamental Sciences and the knowhow of integrating them with experience in real life setting. He also informed that for developing a unique research eco-system with emphasis on 'translational research' steps such as Disability Management and Special Education alongwith General & Adapted Physical Education and Yoga, Integrated Agriculture and Rural Development, Agricultural Biotechnology, Integrated Agriculture, Rural and Tribal Development and Organic Farming are being focused upon. He further suggested that suitable amendment be made in the UGC Act so that deemed universities are not debarred from using the term 'university'.

6.9   ASSOCIATION OF INDIAN UNIVERSITIES (AIU)

6.9.1 The Secretary General, AIU informed the Committee that AIU came into existence as the "Inter University Board (IUB)" on 23rd March, 1925 to bring all Universities on a common platform and is registered as a Society as the "Association of Indian Universities (AIU)" on 29th September, 1967. AIU has representation in several boards and has representation in several international organizations. The functions and activities of the AIU as informed to the Committee are Think Tank on Higher Education, Coordination and Liaisoning Capacity Building/Leadership Development Research, Publications & Information Dissemination, Cultural Activities & Youth Festivals Sports Promotion, Events and Championship, Evaluation & Equivalence of Degrees, Library Services to Universities.

6.9.2 It was also informed that AIU provides an intellectual platform to the community of higher education for debating the issues and policies of emerging concerns and providing research-based recommendation to the Government of India for enriching the policy framework on higher education. Further, AIU is the nodal agency for granting equivalence to the degrees awarded by the accredited foreign universities and institutions for the purpose of admission to higher academic courses and employment.

7. Visits and Depositions

The Committee in order to gain first-hand experience and have deeper insights towards understanding the issues and challenges faced by Higher Education Institutions (HEIs) visited IIT, Guwahati, IIT, Bombay, IISc, Bangalore, Central Agricultural University, National Sports University in Imphal and SNDT University, Mumbai and interacted with the Directors/ VCs. Views of representatives of Gauhati University,

Assam Science and Technology University, College of Architecture and Planningand Gauhati Medical College and HospitalinGuwahati, Manipur University, ICT, Mumbai were also heard. The Committee also interacted with various Public Sector Banks on the issue of funding of education sector to understand the guidelines/ issues concerning it. Depositions of the following representatives oftheseUniversities/ Institutes before the Committee are as under:

Sl. No.	Name and Designation	Organization
1.	Prof. T.G. Sitharam, Director	Indian Institute of Technology, Guwahati
2.	Prof. Madhurjya P. Bora, IQAC	Gauhati University
3.	Dr. Nripen Das, Registrar	Assam Science and Technology University, Guwahati
4.	Prof.(Dr.) Achyut Baishya, Principal cum Chief Superintendent	Gauhati Medical College and Hospital
5.	Shri Saahil Das, Architect	College of Architecture and Planning, Guwahati
6.	Dr. Anupam Mishra, Vice Chancellor	Central Agricultural University, Imphal
7.	Shri R.C. Mishra, Vice Chancellor	National Sports University, Manipur
8.	Prof. N Lokendra Singh, Vice-Chancellor	Manipur University, Imphal
9.	Prof. Govindan Rangarajan, Director	Indian Institute of Science (IISc) Bangalore
10.	Shri Subhasis Chaudhuri, Director	Indian Institute of Technology, Bombay
11.	Prof. S.S. Bhagwat, Dean	Institute of Chemical Technology, Mumbai
12.	Dr. UjwalaChakradeo, Vice Chancellor	SNDT Women University, Mumbai

7.1   INDIAN INSTITUTE OF TECHNOLOGY-GUWAHATI

7.1.1 The Director, Indian Institute of Technology-Guwahati (IITG) while deposing before the Committee touched upon the thrust areas of the National Education Policy (NEP), i.e. innovation, incubation and challenges before start-up ventures and he mentioned that a new course, B.Sc.(Data Science) Programme is planned to cater to the industry trend and attract more non JEE students.

7.1.2 On educational standards, research and academic environment in IITG, it was informed that one of the major focus and thrust areas has always been to establish world

class technical education, knowledge creation via research and academic collaboration/MOUs with national and international institutions/universities/ organizations to enhance its global outreach and strengthen its existing international collaborations. IITG is an academic institution dedicated to creating and spreading knowledge in a range of disciplines and fields, delivering quality higher education at all levels, serving national needs, and furthering public interest.

7.1.3 Recalling the onset of the COVID-19 pandemic resulting in disruption of many academic and research activities worldwide, the Institute continued to connect with academic and industry to promote collaborations ranging from student and faculty exchange, joint research projects and student internships. On foreign collaborations front at that time, IIT Guwahati had 74 honorary faculty members as well as industry experts affiliated to the institute who were internationally acclaimed faculties joining the institute from various top Universities across the world. It was also informed that presently there were 31 international students in the institute.

7.1.4 The institute has also tried to expand the scope of technical education in the line of global and national requirements; it has diversified into 11 academic departments, 7 inter-disciplinary academic centres and 5 academic schools covering all the major engineering, science and humanities disciplines.

7.1.5 Responding to the Committee' query about role of IIT-G in effectively handling the pandemic, it was informed that during the pandemic also IIT kept on undertaking quality research, developing products and imparting quality education. IIT Guwahati has contributed research in the fields of Epidemic pattern and disease, Ventilator, Hospital beds, etc. They have also developed many products such as mobile robot for carrying drug/food in COVID-19 isolation wards, vaccine storage device, and carrying medical waste disposal in the COVID-19 isolation wards. IITG also extended its support to train the faculty members of neighbouring institutes in conducting online classes and assessments. Through E&ICT academy of IITG, since 2018, IITG has trained lakhs of students and teachers in high ended technical topics of importance.

7.1.6 Informing the Committee regarding its focus on research, it was submitted that a new research park building was in the final phase of construction and was likely to be ready by mid2022. The institute has also intensified its activities in the direction of promoting start-ups as well as encouraging entrepreneurs to develop products at IIT Guwahati. The institute is also implementing the Impacting Research and Innovation Technology (IMPRINT) and UchhatarAvishkarYojana with focus on a viable industry-academic collaboration where industry shares a part of the cost of research. IIT-G has also focused on filing intellectual properties. So far institute has filed more than 150 patents in the last 5 years. IIT-G is also trying to build a digital University.

7.1.7 On review of educational standard and academic environment envisaged by the

NEP-2020, it was submitted that in order to prepare a roadmap for the implementation of the same, Director, IIT-G has constituted a committee on 3rd November 2020 which consulted faculty members of all Departments, Centres and Schools of the Institute. After multiple deliberations, the Committee summarized the feedback and submitted its report. Multi-disciplinary curriculum in IIT Guwahati is developed to address SDG targets. In this direction, 9 new Centres /Schools have been recently established to servethe needs of such a curriculum. Good quality of work is going at our centre-for-linguistic-science-and-technology at IIT Guwahati in the areas of preservation and archiving of minority languages spoken in India, speech and written text analysis of the languages and technology development in Indian languages with special emphasis on NE Indian languages. In line with NEP-2020, IIT Guwahati is working on introducing various online programmes on the focused areas. Some of these programmes are in coordination with Industry partners for creating work-ready graduates.

7.1.8 On being asked about the implementation plan of NEP-2020, it was submitted that the Institute looks forward to align its Research & Development activities as per the strengths of the institute and play a major role as per the policy guidelines to be developed under the National Research Foundation. Being a leading research institute recognized globally (QS world rank 41 and India Rank 02 in research citation per faculty); IIT expects to have adequate participation in the decision-making bodies to help in tapping up the national and international funds for the Institute research growth.

7.1.9 On examination reforms, it was submitted that IIT-G follows a continuous evaluation and grading system. In assessing a students' performance in subjects/courses (Theory, Laboratory), seminars, project work etc., a well-defined system of continuous assessment is adopted by the Institute while maintaining faculty autonomy. In conformity with this practice, there is one mid-semester examination and an end semester examination for every theoretical subject- in addition to continuous assessment and quizzes by instructors. The weightages assigned to different components of assessment are announced by the concerned instructor at the beginning of the semester.

7.1.10 Informing the Committee about accreditation, it was submitted that as per the decision of the IIT Council, the Internal Peer Review process of all the 'Academic Departments was initiated at IIT Guwahati in 2013, which was followed by an External Peer Review, which submitted its Report in 2014. The next academic peer review is planned in 2024. It was informed that IIT Guwahati received an Overall Qualitative Evaluation of 87%.

7.2   GAUHATI UNIVERSITY
7.2.1 Guwahati University, one of the oldest universities in Northeast, is a collegiate public funded State University, set up in 1940. It is accredited grade "A" by National Assessment and Accreditation Council (NAAC).

7.2.2 Director, the Internal Quality Assurance Cell (IQAC) represented the University to the Committee. On the challenges faced for effective utilization of water, flood prevention and disaster management, he informed that Gauhati University had taken a number of new initiatives in that field e.g. the newly established Centre for Brahmaputra Studies funded by Ministry for Development of North Eastern Region (MDONER) and Aqua Culture and Bio Diversity Centre and Botanical Garden and Research Centre.

7.2.3 Responding to the query of the Chairman of the Committee on steps taken for implementation of NEP- 2020, Director, IQAC, highlighted the implementation of the SWAYAM MOOCS platform as an aspect of the NEP-2020 for which trial run has been scheduled by January 2023 of the Clusters.

7.3 ASSAM SCIENCE AND TECHNOLOGY UNIVERSITY

7.3.1 Registrar, Assam Science and Technology University (ASTU) informed the Committee that the University was established by Government of Assam under Assam Science and Technology University Act, 2009 to provide education and research in Science & Technology and other professional courses in the state of Assam. ASTU, as of now, has 32 affiliated colleges/institutions conducting undergraduate/ postgraduate programmes in engineering, science, management, pharmaceutical science and some other professional courses. The University also conducts an in-house post-graduate course in Energy Engineering. During the course of discussions with the representatives of ASTU, the Committee was informed of the setting up of the Plasma Pyrolysis Plant. It was also informed that the Government should focus on the infrastructure development needs of the Science & Technology. Registrar also requested for allocation of more funds and recruitment of more faculty teacher's position to cater to the academic need.

7.3.2 Responding to the query of the Committee on preparedness for NEP-2020, it was informed through written submission that the 23rd meeting of Academic Council, Assam Science and Technology University, held on 06/11/2020 resolved vide Resolution No. AC-23/11/2020 to adopt the National Education Policy-2020. The Council decided to rename and restructure the courses into a multidisciplinary format in 3 schools namely Schools of Engineering and Applied Sciences, Social Science and Liberal Arts, Management Studies and Entrepreneurship. It was added that the preparation for adoption was in process.

7.3.3 On the query raised by the Committee about involvement of ASTU with the local community, it was informed that the university engages with the local communities, particularly, young children to keep them aware about the scope and importance of science and technology education, Swachata, etc. Every year, the University conducts National Science Day, National Technology Day, World Environment Day etc. in the

schools of fringe area of the University. In each event, students from 4 to 8 schools participate in various activities.

7.3.4 It was further added that the University engaged itself in teaching of science subjects in the schools of fringe area, particularly for the students of XI and XII standard. In 2019 and 2020, the university conducted STEM (Science, Technology, Engineering and Mathematics) Education programme, called "Catch Them Young For Engineering" (CTYE) in 14 remote districts of Assam (Nalbari, Bongaigaon, Dhubri, Sonitpur, Dhemaji, Karbi-Anglong, Karimganj, Dima-Haso, Golaghat, Jorhat, Charideo, Tinsukia, Nagaon &Majuli) where about 10,000 students participated representing over 127 Schools. Additionally, 10 National Service Scheme Units have also been sanctioned for the University by the Government of Assam.

7.4   GAUHATI MEDICAL COLLEGE AND HOSPITAL

7.4.1 Gauhati Medical College is a premier institute of North East India and is the second medical college of Assam established on 20th September, 1960. Currently, the intake capacity of graduate student is 200 students *w.e.f.* 2019 and for post Graduate seats, it is 210. At present, GMC has Super Specialty courses in 12 Departments with total intake of 37 seats per annum.

7.4.2 Deposing before the Committee, the representatives of Gauhati Medical College in their written submission submitted that Gauhati Medical College has requirement of a total of 1920 hostel seats whereas at present, infrastructure has a capacity of 1239. The gap of 700 seats especially for Post Graduate and Post Doctoral students were urgently required at Gauhati Medical College.

7.5   GUWAHATI COLLEGE OF ARCHITECTURE & PLANNING

7.5.1 Guwahati College of Architecture and Planning (GCAP) is an institution affiliated under Assam Science & Technology University and approved by the Council of Architecture, New Delhi and under the aegis of permission from Higher (Technical) Education Department, Government of Assam. It is also approved by Institute of Town Planners, India.

7.5.2 GCAP was established in 2006 by Dona Foundation. It claims to be a need-based architecture college in the North East Region. The college offers five years Degree course on Bachelor of Architecture, five years Degree course on Master of Planning in Urban & Regional Planning and three years Degree course on Bachelor of Science in Interior Design. GCAP is also associated with CEPT University, Ahmadabad for development of Institute/education.

7.5.3 Chief Executive Officer of Guwahati College of Architecture and Planning made a presentation before the Committee highlighting about the College of Architecture and courses offered by them.

7.5.4 The Chairman of the Committee desired to know about the efforts to attract foreign students and development of new technology using drone to explore various public utility and research aspects. The Chairman also suggested the Guwahati College of Architecture & Planning for involvement in Smart City consultancy projects.

7.5.5 During the discussion, the Chairman and Members raised many issues of common interest for all institutions/Universities. Issues such as availability of drinking waters, flood management, maintain the ration of scheduled caste, scheduled tribes, other backward class students in higher educational institutions were flagged by the Members during the discussion.

7.6   CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

7.6.1 The Central Agricultural University (CAU) was established under Department of Agricultural Research and Education (DARE), Ministry of Agriculture and farmer's Welfare, Government of India on 26th January, 1993 by the Central Agricultural University Act, 1992 of Parliament with its headquarters at Imphal, Manipur. It is a fully residential university covering all the North-East Hill states under its jurisdiction except Assam. The university has 13 constituent colleges along with 6 Krishi Vigyan Kendras (KVKs), 6 Multi Technology Testing Centers and 6 Vocational Training Centers. The total student strength of the university is 2668. A total of 337 Undergraduate and 147 Postgraduate students completed their degrees and 15 students were also awarded PhDs during the year 2020-21.

7.6.2 As regardseducational standards, it was informed to the Committee that the University offers 9 Undergraduate, 45 Masters and 25 PhD Degree programmes in different subjects/disciplines through its 13 constituent colleges. Under Institutional Development Plan (IDP) -National Agricultural Higher Education Project, the University has established 7 smart classrooms and 6 language laboratories and incubation centers for improving educational standard including communication and business skills. It was further added that all the colleges have digitally interlinked well equipped 24X7 library facilities with Consortium for e-Resources in Agriculture (CeRA). E-books have been purchased for easy accessibility by the students/staff.

7.6.3 It was further submitted that the University has also developed digital platforms like e-office and Academic Management System (AMS) with internet connectivity up to 100 mbps. During the COVID pandemic, the University had conducted online classes and Online Classes Monitoring Committee was formed at the level of Dean.The University also introduced cross campus teaching facilities via online mode to make up for any deficient teachers in the particular subject and also for increasing competition among the faculties and students.

7.6.4 On implementation of the NEP-2020, it was submitted that the University was in the process of its implementation and has signed Memorandum of Understanding

with cluster of Institutes located in Manipur in the several areas of collaboration. Regarding success in competitive examination, such as GATE, it was informed that a total of 338 students secured ICAR-JRF& ICAR-SRF and 52 students qualified GATE examination till April, 2022.Since inception till 2021, 5255 students had passed out from the University.

7.6.5 In response to the Committee's query about accreditation process, it was submitted that the accreditation process of the University, its constituent colleges and its degree programs for another five years had already been completed. The university had started the accreditation process by submitting the relevant information in the National Agricultural Education Accreditation Board (NAEAB) portal on 15th April 2021. Subsequently after submission of Self Study Reports, the Peer Review Team (PRT) reviewed for accreditation of the University, its constituent colleges and its degree programs during 11th, 12th & 14th March, 2022 and decision of the NAEAB is awaited.

7.6.6 With regard to research, it was submitted that at present the university has 75 ongoing internally funded research projects and 112 externally funded projects including 35 All India Coordinated Research Projects(A1CRPs) and 4 All India Network Research Projects (AINRPs) in areas of Integrated Farming System (IFS), conservation of indigenous breeds of animals, fishes, insects and crops, climate change, bio-fertilizer and bio-pesticides, entrepreneurship and skill development, artificial intelligence and drone based technologies.

7.6.7 It was further added that 266 and 109 Intra Mural Research Projects and Externally funded Projects respectively had been completed.Many of the technologies developed by the university are of national importance.Four High Yielding Verities (HYVs) of rice and one Cassava variety TCa13-1 (CAU-Umangra 1) were developed.Under the quality seed production programme, 812 tons of certified seeds of rice, 300 tons of rapeseed mustard, 95 tons of groundnut, 120 tons of soybeans were produced.Altogether, 1001 training programme were organized which benefited 45400 farmers.

7.6.8 In response to the Committee's query about examination reforms, it was submitted that for fair assessment/evaluation of the students belonging to same faculty and also, for bringing a conducive atmosphere amongst the faculties/students, the University followed uniform examinations in each of the six faculties.The University followed external system of examination for end term examinations in which the question papers were set and evaluated by experts from outside the University.

7.6.9 To improve quality of research being conducted, publication of 2 research papers in National Academy of Agricultural Science (NAAS) rated journals with four or above ratings or publication of 1 research paper in NAAS rated journals with 6 or

above ratings is made mandatory for award of Master's degree. In case of Ph. D. degree, publications of 2 research paper in NAAS rated journals with six or publication of 1paper in NAAS rated journals with above 6 is made mandatory for award of Ph.D. degree. The university has made Anti-plagiarism software report of theses mandatory for award of Postgraduate courses and Ph.D. degrees. It was, further, submitted by the University authorities that uniform question pattern and marking system have been followed for conducting comprehensive examination after duly approved by Academic Council.

7.6.10 In response to the Committee's query about steps taken to impart education during and after COVID 19 pandemic, it was informed that taking innovative step, the University had conducted online examinations *via* Evaluer software during the year 2020-21.

7.6.11 On the issue of academic environment for agriculture education, it was submitted that the University had excellent academic environment for education with focus on agricultural education of the North-eastern Region. Apprising the Committee on the staff strength of the University, it was submitted that the University has total staff strength of 1113 including 25 administrative, 322 teaching and 766 non-teaching positions. The University maintains Faculty-Student ratio of 1:6.89 for increasing teaching output and outcome.

7.6.12 On the issue of incentivizing the research scholars, students and extension workers, it was informed that to encourage students for pursuing research and to recognize the outstanding original research done by Postgraduate and Ph.D. students under Central Agricultural University, Imphal, the university had initiated the Best Thesis Award. Similarly, the University also initiated the Best Extension Worker Award to motivate the extension workers serving in the University.

7.6.13 On collaboration with the foreign Universities, it was informed that a total of 37 faculties had been selected for deputation in reputed institutes in South-East Asian countries in frontier areas of their respective subject under IDP-NAHEP project.97 undergraduate students have been selected for three months foreign training in entrepreneurship development in Universities/Institutes in South-East Asian countries. The University had already signed MoU with 45 universities/institutes in a number of countries and 2 international organizations and in the process with 17 institutes/universities in 13 South-East Asian countries.

7.6.14 On collaboration with higher research institutions within the country and abroad, it was informed that under Institutional Development Plan (IDP), National Agricultural Higher Education Project (NAHEP) with assistance from World Bank sanctioned to the University by the Indian Council for Agricultural Research (ICAR), a total of 119 different motivational and entrepreneurship programs were conducted.

Also 4 IDP regional workshops on start-ups and entrepreneurship with 618 participants and 16 National training on Entrepreneurship Development with 1846 participants were conducted.

7.7   NATIONAL SPORTS UNIVERSITY (NSU), MANIPUR

7.7.1   During its visit to the National Sports University(NSU), Manipur the Committee interacted with its Vice Chancellor, who in his presentation informed that NSU was set up in 2018 and the University is presently functional from its temporary campus at the Khuman Lampak Sports Complex at Imphal, which has been provided by the State Government. He further stated that the National Sports University Act was passed by the Parliament on 17th August, 2018 and the University is registered with Association of Indian Universities. He further informed that presently the University is offering five programmes which are M.Sc. in Sports Coaching, MA in Sports Psychology, Masters in Physical Education and Sports (MPES), B.Sc. in Sports Coaching and Bachelor in Sports Education & Sports (BPES).

7.7.2 He further added that foundation stone for the University's proposed 325acre campus at Imphal West, has been laid which will bring flexibility to open new Schools/Departments in consonance with the advances and developments in sports science, sports medicine, and allied areas. He further informed that the University, once developed, will be the first one of its kind to promote sports education in the areas of sports sciences, sports technology, sports management, and sports coaching. It will also function as the national training centre for selected sports disciplines by adopting the best international practices by signing Memoranda of Understanding (MoU) with international universities.

7.8   MANIPUR UNIVERSITY

7.8.1 The Manipur University is located in Imphal city on the western side of the Indo-Burma Road. The University was upgraded from State University to a Central University in October, 2005.

7.8.2 In response to the Committee's query on review of the educational standards, it was submitted that they had introduced semester system and the curriculum of the Under Graduate level were being revised periodically. On implementation of NEP-2020, it was submitted that process for revision of syllabus as per the policy was under process and would be implemented from the academic session 2022-23. The curriculum will be purely Learning Outcome Based Curriculum Framework (LOCF).

7.8.3 With regard to accreditation process, it was submitted that the University has been re-accredited by National Assessment & Accreditation Council "A" grade in the second cycle on 16th December, 2016 and re-accreditation for third cycle was under process. University has submitted Institutional Information for Quality Assessment

(IIQA) for NAAC Accreditation and the same has been approved in April, 2022. As per National Institutional Ranking Framework (NIRF), ranking of the University is in the category of 100-150 as per last year records.

7.8.4 In response to Committee's query about quality of research being undertaken, it was submitted by the University authorities that more than 800 research scholars were presently pursuing PhD in various departments. In the year 2020-21, faculty members had published 242 research papers in the UGC Care listed journals, 93 papers in the book chapters and total of 53 research projects amounting to Rs. 25,04,75,368/-. It was added that University has established R&D Cell.The Research Scholars has a Research Club of the University and regular activities are conducted in those platforms.

7.8.5 On being asked about the examination reforms, it was submitted that the examination standing Committee for both Undergraduate and Postgraduate had decided the appropriate evaluation procedures to cope with the changing scenario with due approval of the competent authority. The previous overall pass percentage of students to Postgraduate students of the University was 80.69. Comprehensive continuous evaluation system had been introduced. In addition to that, plagiarism software was also being used for examining the PhD thesis at the time of submission of the thesis.

7.8.6 Briefing the Committee about the academic environment, it was informed that the University has congenial environment for teaching-learning and academic activities with Information & Communication Technology (ICT) facilities. The University computer centre was functioning well and it provides training to the employees of the University from time to time. More than 3000 people consisting of students, scholars, and faculty and staff along with their families were living inside the campus. The campus had sufficient facilities for students in terms of Canteen, Shops, eateries and facilities for sports.

7.8.7 In response to the Committee's query about the roadmap drawn by the University, it was submitted that the University would focus on full implementation of the NEP 2020, promote research on local contents, biodiversity issues of Manipur, North Eastern Region of India, neighboring countries and its belt keeping in mind the national importance, focus on resolving issues of the university and initiatives for improvement on the NAAC and NIRF rankings. In addition to that, the University of Manipur would focus on attraction of more international students and improve the diversity in the campus.

7.9 INDIAN INSTITUTE OF SCIENCE, BANGLORE

7.9.1 The Committee undertook a study-visit to Bengaluru and Mumbai from 26th to 28th May, 2022 and first visited the Indian Institute of Science (IISc) Bangalore and held its deliberation on the subject under consideration. The IISc is a premier deep research

institute in the country with a rich legacy of fundamental scientific contributions as well as the application of its research findings for the benefit of society. Its research output is diverse, multidisciplinary and cut across traditional boundaries. In keeping with its mandate to "provide for advanced instruction and to conduct original investigations in all branches of knowledge as are likely to promote the material and industrial welfare of India" , the Institute has always strived to strike a balance between the pursuit of basic knowledge and applying its research for industrial and social benefit.

7.9.2 Director,IISc Bangalore submittedbefore theCommittee thattheInstitute'sMissionwastobuild leaders and Entrepreneurs through holistic, transformative and innovative education. He further informed thatIIScwasestablished in 1909.Therewere 37Departmentswith489facultymembersinallbranchesofscienceandengineering.He also highlighted the vision of the institute which was to be among the world's foremost academicinstitutions through the pursuit of research excellence and the promotion of innovation.Theinstitute asrapidlymodernizingitsinfrastructurebyupscalingitsresearchequipmentandengagingsubstantialinternational facultyand students.

7.9.3 He then briefed the Committee of the accolades and accreditation process and informed that the institution has a NAAC accreditation of A++ category under NIRF rankings. He then apprised the Committee of the various courses such as B.Tech. in Math and Computing; M.Tech. programmes in Quantum & Smart Manufacturing; New certificate programmes in Digital Health and Imaging, Digital Manufacturing and Smart Factories, Artificial Intelligence, Deep Learning, Computational Data Sciences. He also mentioned about the workshops conducted in advanced areas: Internet of Things (IoT) and embedded systems, Augmented and Virtual Reality, Solar energy systems, Multirotor drones Lightning-interaction with aircrafts, tall structures.

7.9.4 Since one of the topics for deliberation was research also, the Director, therefore, highlighted the research-based objectives of the institution alongwith the ongoing programmes to be launched in the said direction such as digital health, biomedical systems and devices, vaccine drug delivery and quantum technologies. The Committee was then presented with the ARTPARK initiative of IISc Bangalore which is structured to bring with Government Industry and startups for impact and build India's leadership in AI & Robotics technology, the objectives of which were Learning and education for AI age, creation of new jobs for tomorrow *via* tele operated robots, implementation of Digital intelligent healthcare and ensuring security of nation with strategic contributions for Atmanirbhar defense programmes.

7.9.5 The representatives from ARTPARK then informed the Committee of the initiatives and projects such as launch of Xray Setu (for quick and rapid assessment of lung health), Avtaar Robotics (for capturing skills of human nurse remotely), Project Eklavya (to scale up AI learning among students) and Data Setu (for maintaining

highest standards around data privacy) and various Academic Initiatives such as Innovation Grant programme and Innovation Fellow.

7.9.6 During its visit to IISc Bangalore, the Committee also visited Society for Innovation and Development (SID) at IISc campus and was briefed about various technological developments therein. It was informed that SID was set up in 1991 in collaboration with IISc Bangalore to nurture knowledge, create infrastructure and bring new talents in fields of research and technology. It was also informed that since inception, SID has evolved and refined its model of engagement and actively takes its missions through its three divisions namely CORE for engaging in large corporations in collaborative research; TIME to put midsized entrepreneurs on disruptive growth path via innovation; and STEM for incubating start-ups having deep science and societal impact at their core.

7.9.7 During its visit to IISc Bangalore, the Committee also visited Centre for Nano Science and Engineering (CeNSE) which was established in 2010 to pursue interdisciplinary research across several disciplines with a focus on nanoscale systems. Current research topics include, but are not limited to nanoelectronics, MEMS/NEMS, nanomaterials and devices, photonics, nano-biotechnology, solar cells and computational nano-engineering. The officials of CeNSE also threw light upon the state-of-the-art nanofabrication facility with a clean room spanning 1400 square meters located at the centre alongwith several characterization labs that cater to material, electronic, mechanical, chemical and optical characterization.

7.9.8 With regard to research and innovation, the Director, IISc Bangalore highlighted its expansion of existing Joint Advanced Technology Programme with DRDO, Advanced aerospace systems & materials, high temperature materials, micro & nano systems, AI & robotics, quantum technologies. The Committee also visited the Incubation and Innovation Hub in IISc Bangalore campus and interacted with various researchers and students therein. The Committee was then apprised of the various projects and technologies being developed in the hub in collaboration with various private companies of the country and various other eminent institutes.

7.10   INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY

7.10.1   The Committee during its study-visit to Mumbai visited Indian Institute of Technology (IIT), Bombay and interacted with its Director/ faculties on the subject of review of education standards, accreditation process, research, examination reforms and academic environment, etc. The Committee, thereafter, also interacted with Dean, Academics and other faculty members of the Institute of Chemical Technology (ICT), Mumbai who were present at IIT Bombay.

7.10.2   IIT Bombay, set up in 1958, is recognized worldwide as an education and

research leader in the fields of science & technology and engineering. The Institute was granted the status of 'Institution of Eminence' by the Ministry of Education on July 9, 2018. Its vision is to become a leading global technology university that provides a transformative education to create leaders and innovators, and generates new knowledge for society and industry.

7.10.3 The Director, IIT Bombay apprised the Committee that the Continuing Education & Quality Improvement Cell conducts outreach programs to disseminate state-of-the-art research to other faculty in sister universities through the AICTE-QIP mode, as well as to the industry practitioners through continuing education mode. These programs help to proliferate the technologies developed at IIT Bombay, and eases their adoption and translation to practice. A new Masters of Engineering Program in Entrepreneurship for working professionals has also been approved for roll out through the Desai Sethi School of Entrepreneurship. A large number of working professionals from industry as well as faculty and students have participated and acquired knowledge from short- and long-term certificate courses. During 2020-21, a total of 51 Continuing Education Programme (CEP) courses were conducted with about 945 participants with revenue of around Rs 5.50 crores.

7.10.4 With regard to the Research & Development Activities, the Committee was informed that the Office of Dean (R&D) or IRCC (Industrial Research and Consultancy Centre) engages and facilitates research and development initiatives at IIT Bombay by administering R&D projects, facilitating industry interactions, managing intellectual property and licensing activities, reviewing and finalizing R&D related agreements and contracts, supporting high end research infrastructure and disseminating R&D related information in various fora. The R&D activities during 2021-22 can be summarized as below:

	Sponsored Research Projects		Consultancy Projects		Patents	
Financial Year 2021-22	No. of Sponsored Projects	242	No. of Consultancy Projects	648	No. of Patents Filed	131
	Sanctioned Outlay (Rs. in Cr.)	220	Sanctioned Outlay (Rs. in Cr.)	79	No. of Patents Granted	96

7.10.5 The Director, IIT Bombay thereafter, deliberating upon the initiatives undertaken in the light of NEP, 2020 apprised the Committee of the following:

(i) **Initiatives undertaken as per NEP:** Following NEP-2020, IIT Bombay has created provisions for multiple exit points from the undergraduate programs. Exit after 3 years with a B.Sc. (Engg) degree, exit after 4 years with the usual UG degree, and exit after 5 years with a dual degree (B.Tech. + M.Tech.) in the same or different

disciplines. The M.Phil. program has been discontinued and a new 2-year M.A. is being started for those who have completed a 3-year Bachelor's program. The Institute is also starting a new Bachelor's program encompassing the Liberal Arts, Sciences, and Engineering subjects to provide a more holistic and multidisciplinary education. IIT Bombay is registered on the Academic Bank of Credits and presently allows a certain number of credits earned through NPTEL/ SWAYAM courses towards completion of graduation requirements.

(ii) **Future roadmap for the implementation of NEP:** A total revamp of the undergraduate curriculum is being undertaken which will allow students to have more hands-on experience and also provide options for multidisciplinary. A one year M.Engg. program for working professionals will be launched soon. A Master's program in 'Development Practice' is being started to train personnel from the development sector. Ph.D. programmes in areas such as AI and Data Science, Digital Health care will target students from diverse backgrounds and will give a boost to translational research.

(iii) **Innovation & Translation Ecosystem:** IIT Bombay has a vibrant ecosystem for translating academic research & innovations to higher Technology Readiness Levels (TRL) and further opening opportunities for creating societal and industrial impact. Faculty and student innovations are nurtured to higher TRLs through entities such as:

    (i)   SINE for technology incubation,

    (ii) Technology Innovation Hub (TIH) for focused technology translators in IoT, and

    (iii) Research Park for joint technology development with Industry.

(iv) **National & International Collaboration:** IIT Bombay has signed a total of 122 MoUs across several prestigious universities globally and across India for growing its education & research partnerships and collaborations at the national and international levels. Bi-directional student exchange programs, faculty mobility to conduct joint research, and joint degree programs are some of the mechanisms of interactions. Joint PhD programs with international universities (8), Executive MBA program and a joint Master's Program (2), and co-supervised PhD programs (8) are examples of research interactions with global universities. The IITB-Monash Research Academy, which offers joint PhD programs, is physically located on the campus of IIT Bombay.

(v) **Gender Initiatives:** In pursuit of its commitment to promote equity and create a safe academic and work environment for all its employees and students, the institute has put in place certain initiatives. IIT Bombay applied for and was selected as one of the 30 Indian institutes in the DST-GATI pilot project, which stands for Gender Advancement in Transforming Institutions. Through GATI, the institute is collecting and analyzing data to propose new initiatives and policies. At present, the percentage of women to men across undergraduate and postgraduate programs in STEM disciplines is 19:81. At the same time, with the supernumerary seats, 20% women have entered the B.Tech. program last year. In order to prepare these women students for their time on the campus, the institute runs an orientation session for the incoming women students in the B.Tech. program. In non-STEM disciplines (under-graduation and post-graduation) there are 41% women. With respect to faculty, there are 30% women in non-STEM

disciplines and 11% in STEM disciplines.

7.11 INSTITUTE OF CHEMICAL TECHNOLOGY (ICT), MUMBAI

7.11.1 The Committee then, heard the views of Dean (Academics) of the Institute of Chemical Technology (ICT), Mumbai (Deemed to be University) at IIT Bombay during its study visit and was apprised of the various programs being offered by them for both under-graduation and post-graduation. During the interaction, the Committee was informed of the strategy of the institute for creation of world-class facilities for innovation and bringing dedicated leaders together. The institution also raised issues related to funding of R&D projects, innovation centres and also measures adopted and bottlenecks faced in relation to student related reforms and examination processes.

7.11.2 It was informed that the institute has been graded as A++ by NAAC and an overall rank of 21 under NIRF 2021 alongwith bagging the Higher Education Excellence Award for Excellence in Enabling Research Environment 2021. While deliberating upon the faculty quality, it was highlighted that faculty of ICT has several awardees such as 3 Padma Vibhushan, 8 Padma Bhushan, 8 Padma Shri and various fellowships from recognized institutions/bodies. Also, 410 patents had been filed out of which 330 were in the last 10 years.

7.11.3 It was also informed that several startups have been founded by ICT students and Alumni. Further, S.M. Mokashi Incubation Centre-ICT NICE was also inaugurated on 26th January, 2021for promoting innovation and research among students and faculty. Also, ICT's Innovation and Start-up Policy has already been implemented to promote the same. Throwing light upon the quality of student projects, Committee was informed of the Project relating to Plagiarism/ Similarity Index which is determined by using iThenticate software.

7.11.4 As highlighted, the vision of the institute was to continuously evolve curricula to brighten the future of chemical, biological, material and energy industries of the nation. The institute shall strive to impart the education to its students to devise new solutions to meet the needs of all segments of society with regard to material and energy while protecting the environment and conserving the natural resources.

7.12 SNDT WOMEN'S UNIVERSITY, MUMBAI

7.12.1 The Committee also held discussions with the Vice-Chancellor of SNDTWomen'sUniversity, Mumbai during the study visit on thesubject underconsideration. It was informed that it was the first Women's University in India and South East Asia which was established by Bharat Ratna Maharshi Dr. D.K. Karve in 1916 and got its statutory recognition in 1951. Although a State University, it has all India jurisdiction and affiliated colleges in 7 States. TheCommitteewasapprised about

the innovationsintroduced bythe Universityasunder:

a.Researchbeinganimportantcomponentthestudents,facultyanddepartmentalresearchwere encouragedthroughfellowship,researchgrantsandworkshopsonpreparingresearch;
b. Innovationincurriculumdesignanddevelopment;
c. Deploymentof InformationandCommunicationTechnologies(ICT)foronlineadmissions and student cycle, to connect campuses of Mumbai and Pune and SNDTWU/integrateICTs intoteaching-learningprocess;
d. InternationalizationthroughMoUssignedwithmanyforeignuniversities,jointprogrammes,research, and student internship planned;Effective end-to-end use of ICT for reforms in examinations; and
e. University-Industry Partnership, where industries offer fellowships and industry expertsact as mentors, interact with students as visiting professors, guide students duringinternshipetc.

OBSERVATIONS

(i)   *The Committee observes that reforms in the Indian higher education system have been long overdue. Happily, the National Education Policy (NEP)- 2020 marks a significant shift in the traditionally established ways of teaching and learning. The main focus of this policy is not only on improving the quality of education, but also on formulating an effective regulatory regime for higher education institutions across India.*

(ii)   *The Committee notes that with a clearly spelt out objective of improving the academic environment for higher education institutions across India, NEP 2020 rightly focuses on curbing the commercialization of higher education in India. It prescribes that all educational institutions will be audited as per standards of audit for section 8 company (not-for-profit company) and the Institute of Chartered Accountants of India may also refine the norms for educational institutions, including ensuring that related party transactions, services or charges by any other names are not used to profit from the institution by the promoters / sponsor / management.*

(iii)   *The Committee observes that in order to accelerate the growth of Higher education and achieve the Gross Enrolment Ratio (GER) targets as envisaged by the Government, it is imperative that the country would need more Universities to meet the rising demand for higher education and this also calls for greater emphasis on public - private partnership.*

(iv)   *The Committee observes that the Higher education scenario has also witnessed the growth of specialized universities in many States both in the private sector and in the public sector but conceptually a "University" as such broadly encompasses the*

study of the world that we live in and is to provide essentially a very broad-based education with an interdisciplinary approach.

(v) *The Committee observes that as institutions navigate the post pandemic world, they will need to discard the one-size-fits-all approach to delivering education, revamp collaborations with key stakeholders, and reorient their focus towards inclusion. The Committee further observes that there is a visible shift the way education is delivered and for this Higher education institutions need to be conscious of evolving student preferences as they reopen campuses and revamp education delivery and face post pandemic challenges.*

(vi) *The Committee observes that in order to build a self-reliant higher education system, besides the Higher education institutions, other stakeholders, including students, industry, and the public sector banks in particular as well as the Government in general need to synergize their efforts towards that goal.*

(vii) *The Committee observes that one of the major parameters that impacts the quality of education is a permanent mechanism to review and update curriculum to meet with the evolving demands of both, the pursuit of knowledge and the pursuits of earning livelihood.*

(viii) *The Committee observes that there is a pressing need to streamline the compliance system, reduce multiplicity of agencies seeking compliances and make the compliance regimes oriented towards Ease of running an Educational Institution while protecting the interests of the entire Educational Community consisting of the students, guardians, teachers and administrators too.*

(ix) *The Committee observes that while on the one hand, dependable internet facilities will have to be further developed, the State Governments and independent institutions will also have to explore the possibility of using established satellite technologies for providing uninterrupted education in hybrid format, now called as Phygital (Physical plus Digital). Some State Governmentsseem to be lackadaisical in their approach towards this.*

(x) *The Committee is of the view that as part of the administrative reforms which the Department of Higher Education may be considering towards the education sector, a Single Window System to be evolved through joint efforts of both, State Governmentsas well as the Central Governmentwill help expedite approval from various regulatory authorities which Private/ Deemed/ other Universities are required to obtain.*

(xi) *The Committee is of the view that Education should be treated at par with the infrastructure sector and provided long-term loans and funds besides providing access to banks, financial institution loans as priorities for infra-structure support to*

highereducation.

(xii) *The Committee observes that there is a growing need to evolve structured academic programmes at different levels for building the decision-making capacities of Vice Chancellors, Principals and Governing Body members of Educational Institutions to ensure a more effective institutional leadership. After a certain period of time, the Govt can think about appointing only those academics as college Principals and VCs who have completed institutional leadership programmes.*

(xiii) During the course of its study visit, the Committee came across several promising innovative and start-up initiators from IISc and IITs who had come up with many interesting and significant inventions. The Committee observes that many institutions are going the extra mile in promoting innovation culture by way of encouraging young, out of the box thinkers. However, there is also a growing need to evolve a mechanism in consultation with the CAG and the Ministry of Finance to ensure that innovators and incubates can also easily participate in the bidding process in response to Govt tenders by suitably redesigning the RFPs and other frameworks of rules and regulations. A window of opportunity to such innovators and entrepreneurs alone will help them sustain in the face of tough competition.

(xiv) The Committee observes that in certain States, Deemed Universities and local colleges have been engaging in a tough competition to attract students and this has led not just to crass confusion but a feeling of being cheated amongst the students and their guardians. State Governments and the relevant bodies of the Govt at the centre should proactively take measures to prevent emergence of this kind of situation.

(xv) The Committee observes that there was an urgent need to revisit and revamp the norms for starting online courses and the concerned authorities should take measures in this regard. It also observes that parameters for assessment and recognition of various courses under regulatory bodies need to be updated to bring them in tune with the current best practices. Also, efforts be made towards offering a level playing field as far as grants in aid were concerned.

(xvi) The Committee observes that as per the data of All India Survey of Higher Education (AISHE), there are 1,043 universities, 42,343 colleges and 11,779 standalone institutions and out of these, almost 78.6 per cent are in the private sector-aided or unaided colleges and only about 21 per cent are in the Government sector. The Committee also observes that the Private sector is contributing in a significant way towards the overall growth in Higher Education and most of them also expect some financial support as some incentive and the same merits attention.

(xvii) *The Committee observes that, at present, barely 20% of the approximately 50,000 educational institutions go for formal accreditation. Considering the importance of accreditation as it underscores standardization and a guarantee towards minimum*

benchmark, more efforts to offer incentives to bring institutions under accreditation system is the need of the hour.

(xviii) *The Committee observes that in spite of the financial support provided by the Centre, some State Governments have not undertaken revamp of engineering and technology syllabi especially in polytechnics and ITIs and this calls for stringent action against such State Governments.*

SUGGESTIONS

Taking into consideration all the issues that figured in the discussions during interactions with the stakeholders, the Committee suggests that —

(i) *the Department may consider appointing a study group to assess the overall performance of Private as well as Deemed Universities and also revisit the Private University Regulation, 2003 and Deemed to be University Regulation, 2019, in the light of several positive as well as some negative aspects (like violation of UGC and AICTE rules and regulations while structuring and introducing any new academic programme and similar such issues) of the overall impact of emergence of Private/ Deemed Universities.*

(ii) *The Department should evolve a mechanism to ensure that a good research proposal could be accorded permission regardless of Section 12B of the UGC Act, 1956 because it is a competitive grant, and many times it is coming in the way of institutions being eligible for research grant from the UGC.*

(iii) *the Department of Higher Education should take initiative and recommend availing the services of institutes of higher learning like IIMs, IITs, IIITs, IISc and TIFR etc. to various Ministries for undertaking the review/ evaluation of Govt schemes and welfare programmes as well as Infra Projects.*

(iv) *the Department of Higher Education may well consider amalgamating NBA and NAAC and establish a single National Accreditation and Assessment Agency in order to avoid any overlap and provide a seamless unitary accreditation process with minimal documentation.*

(v) *the Department of Higher Education and the concerned bodies, NBA and NAAC, may consider taking stringent penal action in cases where institutions are found to be cheating students by falsely claiming higher ranks in accreditation. Making the list of institutions and their rankings public through media advertisement also may be considered.*

(vi) *the Department may consider incentivising Engineering Education in*

regional languages by way of awards for good translators and writers on engineering subjects in regional languages.

(vii)   the Universities and IITs may consider introducing a structured mechanism to seek feedback from every enrolled student at the end of semesters and the courses related to aspects such as cohesiveness in academic environment, promotion of academic scholarship, scope for innovation and skill development etc.

(viii)   the Universities may think about setting up a special cell to address the issues faced by students belonging to EWS categories. Such cells may make measures & incentives of governments devised for the welfare of EWS students, more effective.

(ix)   the Universities should empanel mental health professionals and therapists in order to provide assistance & guidance to the students suffering from mental health issues, stress and depression.

(x) the universities should ensure the adequate availability of resources and facilities to accommodate the requirements of specially abled (Divyang) students, slow-learners, students with dyslexia and other learning disabilities.

(xi)   the universities should proactively take efforts to adhere with the United Nations Sustainable Development Goals (SDG4 exclusively talks about ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all) and publicise their relevant achievements regularly in view of the National and global importance of such issues.

(xii)   the Department may create a framework formandatoryteaching of a Financial Literacy Module (FLM) to be completed by all students of HEIs at will during the entire span of their undergraduate courses as to effectively address the questions of financial literacy and inclusion in the context of emerging Start Up Culture.

RECOMMENDATIONS

Taking into consideration all the issues that figured in the discussions during interactions with the stakeholders as also the points made by Hon'ble Members during the course of discussions, the Committee recommends as follows:

1.   The Committee taking note of the thrust areas and the proposed reforms as outlined for the Higher education sector in the National Education Policy (NEP)-2020 recommends that the Department of Higher Education must formulate a

visionary blueprint with a clear time bound roadmap and strict monitoring mechanism, towards each of the policy directions for their successful, effective and time-bound implementation.

2.   The Committee notes that the National Education Policy, 2020 envisages the creation of the Higher Education Commission of India (HECI) as the principal regulator for higher education, with four verticals for regulation, accreditation, funding, and academic standards and also a Bill to provide for HECI is under drafting stage. The Committee, in this regard, recommends that the aspects relating to protection of interests of stakeholders, clear demarcation of its jurisdiction to avoid any regulatory overlaps and gaps, independent nature with adequacy of resources and performance accountability be given due consideration. The Committee recommends that instead of having too many parallel regulatory bodies in the higher education sector, a simplified hierarchy of regulatory bodies may be constituted which will have a final say in implementation of Government rules/regulations/acts etc.

3.   The Committee recommends that the Department of Higher Education/ UGC and the Universities should collectively review the current state of academia-industry partnerships and take measures to strengthen them further as these can greatly help mitigate the shortage of skilled workforce. The Committee is of the view that such collaboration between the industry and the higher educational institutions would help students develop crucial entrepreneurship/ business skills, provide hands-on experience and help create a robust talent pool.

4.   The Committee appreciating the move towards establishing a Digital University to provide access to students across the country of world-class quality universal education with personalized learning experience at their doorsteps, recommends towards developing more such hubs and spoke models of education delivery. The Committee recommends that public universities can act as hubs with local institutions serving as the spokes, and can thus become a carrier of quality education to all parts of the country. Further, the Committee recommends that a new Phygital or Physical plus Digital (hybrid) way of instructions be experimented with in a structured manner and its impact assessed scientifically.

5.   The Committee recommends that donations and community contribution towards higher education institutions should be encouraged through appropriate policy measures. Donations by individuals, alumni and institutions should be encouraged through tax incentives. All donations to the higher education institutions should be 100% tax deductible. Institutions building a vibrant Alumni Base may be given some incentives in taxes and other charges.

6.   The Committee, noting that sincere efforts are required to attract and retain faculty with good research skills, recommends for undertaking a review of the current system of faculty recruitment, appraisal, assessment, promotions and for developing a rewards-based regime on performance measured through research contributions and publications. Also, the model of appointing talented alumni/senior students/Ph.D. scholars as Teaching Assistants,beneficial to the Universities, faculty and research students, be studied and implemented. This will help such researchers/scholars to get exposure to the teaching skill and to mitigate the shortage of faculty in universities/institutions.

7.   The Committee recommends enhancing international collaborations in the form of student exchanges, faculty exchanges, joint teaching, research, conferences, publications, executive education programmes and study-abroad programmes as such activities will not only broaden the horizon of the participants but will also help in promoting the global engagement of Indian higher education institutions. The Committee strongly recommends that the Department must review and take appropriate action on the Destination India Report prepared by the Indian Council for Cultural Relations (ICCR).

8.   The Committee recommends that world class training programmes for academic administrators be developed as highquality education administration has generally remained a neglected aspect of the Indian higher education system. Also, courses such as Bachelor of School/College/University Management Science for non-teaching staff to manage educational services, exam management, academic administrations need to be formulated as they form the backbone of any educational institution. The Committee further recommends that there should be Institutional Leadership/ Management course for aspiring/existing Principals/ Administrative Heads of the Colleges/ Universities to give them exposure to the management skills required to lead the institutions.

9.   The Committee notes that even after several decades, many State Universities regularly fail in smooth and flawless conduct of examinations. Instances like —
   a) Question paper leak
   b) Administering a wrong question paper
   c) Confusion about seating arrangements and Exam centre
   d) Rampant cases of copying
   e) Framing questions that are out of syllabi
   f) Wrong examiners being appointed for assessment; and
   g) Student-Examiner Nexus

etc. are still not uncommon. Hence the Committee recommends that the parameter of the Institution's exam management competency be also considered as a

mandatory norm towards consideration of accreditation. The NAAC and NBA should award marks to such universities/institutes who conduct examinations smoothly. Besides, experiments like the Question Bank system and adoption of complete digitization of the examination process by institutes/universities to ensure fair and timely conduct of examination and declaration of results, amongst others may be incentivised.

10. The Committee notes the need to carefully examine, assess and analyze the issues and challenges for NBA and NAAC, through compilation of a structured feedback of HEIs so that requisite reform process can be taken forward to make these bodies a benchmark for quality accreditation. Also, it is recommended that the norms for frequency and periodicity of the accreditations be defined so that institutions do not develop a tendency to carry the score for years, without a review, which leads to complacency, and undermines quality mechanisms.

11. The Committee recommends that the experiment of providing courses in humanities in technology institutions be reviewed so as to assess its impact on the academic climate in such institutions. However, keeping in view the broad thrust of NEP, 2020 towards holistic and multidisciplinary education, the Committee also recommends the incorporation of social sciences/ humanities/ arts modules in the technical education curriculum for the development of students with well rounded personalities.

12. The Committee, keeping in view the global trend in student learning, recommends that the Department of Higher Education along with its bodies must undertake an expert study to help provide avenues towards empowering students to chart their education pathways as per their needs and interest, leveraging traditional and other partnerships to bolster learning and making efforts towards ensuring widespread diffusion of education. The Committee, agreeing with the axiom of students becoming "the architect of their own education", recommends that Universities must push for an open curriculum where students, instead of completing a set of core courses, can explore and sample a range of subjects before making their choice on what to pursue in depth and move towards taking greater ownership of their education, pursue education at their own pace, pave the way for lifelong, self-driven learning. The Committee recommends that UGC and other regulatory bodies should undertake an exercise towards realizing this aim.

13. The Committee recommends the formulation of a Comprehensive National Research Policy encompassing all kinds of research activities- both in social as well as physical sciences—with explicitly defined norms and quantifiable parameters. While doing so, the Committee also recommends that all our well identified national developmental needs in social sector as well as infrastructure and science and technology be given high priority.

14. The Committee recommends for a deep study on improving educational standards through innovation in education, especially through the use of technology and based on such a study, a blueprint be prepared for each of the HEIs to be followed to enhance the standards of education all across the country.

15. Noting the growing commercialization of education in certain States and the disturbing trend of many colleges associating with coaching classes to prepare their enrolled students in certain cities, making the learning process a farce through this unholy nexus between coaching classes and colleges, the Committee recommends that the Government, in coordination with State Governments must work out mechanisms to curb such trends and punish such institutions by derecognizing them. Towards this end, the Committee recommends that a study group may be set up by the Central Government to assess the ground realities.

16. The Committee taking note of the shortage of adequate and qualified faculty to provide quality education and observing that many young students are not attracted towards the teaching profession since the recruitment process is quite prolonged with many procedural formalities, recommends that the Department of Higher Education may consider some reforms to shorten the time. Also, the faculty may be encouraged to undertake consultancy on sharing of resources basis in a uniform manner.

17. The Committee recommends that at least on an experimental basis a mechanism for ensuring the accountability and performance of faculties in the universities and colleges should be put in place similar to that of foreign universities where the performance of college professors/ teachers is evaluated by their peers and students. Such performance appraisal would help improve the quality of teaching.

18. In order to enhance the quality of education, especially in the various fields of engineering, the Committee recommends for mandatory mentoring of some chosen colleges, especially catering to students from a rural background or those located there, by the Indian Institutes of Technology (IITs). Such mentoring should encompass all aspects, including faculty skill upgradation, infrastructure enhancement to help pave the way towards student excellence. IITs should also proactively engage and develop Question Banks and Model Tests etc. which can help other Colleges in improving their benchmarks of teaching students.

19. The Committee recommends policy reform initiatives to fulfill the vision of "Atmanirbhar Universities" which abide by the vision of a 'self-sustaining' and 'self-generating' University. Towards the realization of this vision, the Committee also recommends towards adequate autonomy, growth friendly regulatory

framework, enabling environment to raise significant financial resources and energizing towards innovation, entrepreneurship and collaboration of Universities, under a defined policy to be formulated by UGC.

20.   The Committee recommends that the Department of Higher Education should formulate policies/ initiatives keeping in view the Master Plans that States formulate towards the higher education sector. This will help, on the one hand in better resource allocation and coordination between the States and the Ministry in extending financial support, and on the othercurb the tendency of politicization of approvals for colleges by Universities and State Governments.

21.   The Committee recommends adoption of Cluster System in higher education, as a defined policy, through sharing of resources such as libraries, infrastructure, Laboratories, best practices and other human resources which will prove beneficial and UGC must evolve norms towards such sharing by reputed Universities/ IITs etc.

22.   The Committee recommends that the Governmentgive an active consideration to the demand that deemed universities be allowed to use the term 'university' by amending Clause 23 of the UGC Act, 1956 which states that no institution, other than a university established or incorporated by a Central Act, a Provincial Act or a State Act is entitled to use the word 'University', as the term 'deemed university' creates a lot of confusion in foreign countries as there is no concept of deemed university in many parts of the world.

23.   Taking note of the fact that many deemed Universities in order to make quick money were starting Open Distance Learning courses undermining the qualitative research work, the Committee strongly recommends adequate measures to curb such tendencies after carefully examining the options.

24.   The Committee notes that many Universities and IITs as well as IIMs have started Incubation Centres. While these are steps in the right direction, the Committee recommends that the advisability of evolving a new branch of knowledge creation namely Incubation and Innovation Studies be explored. Such studies would help assess the impact of these centres as well as gather new insights into the sociology of the new start-up culture. This will also enable the assessment of incubation and innovation activities taking place in universities and monitor its success and failure.

25.   While the increasing usage of cutting edge technologies such as Artificial Intelligence, Machine Learning, Robotics, Virtual Reality etc. is welcome for several reasons, the Committee recommends that a task force should be set up at central level to explore the possibility of incorporating these new emerging

technologies in contemporary syllabi and develop them for increasing the employment opportunities.

26. The Committee recommends that the Department advise the HEIs to consider a 'Unipass' system like in many educational institutions abroad which comprises a digitally enabled card for utilization of all internal and external facilities provided by the HEIs and government to students. This is especially important given that most HEIs in India issue multiple paper cards like health card, library card etc. separately to students.

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