



विश्वविद्यालय अनुदान आयोग
University Grants Commission

(मानव संसाधन विकास मंत्रालय, भारत सरकार)
(Ministry of Human Resource Development, Govt. of India)

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Bahadur Shah Zafar Marg, New Delhi-110002

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31st July, 2019

PUBLIC NOTICE

UGC has constituted a Committee on "Promoting and Improving the Quality of Research in Indian Universities /Colleges". The Committee has submitted its report which has two parts:

- i. Improving the Quality of Research by Faculty and Creation of New Knowledge and Strategies for Improving Research Culture in Colleges/Universities.
- ii. Proposed UGC (Minimum Standards and Procedures for award of M.Phil./Ph.D. degrees) Regulations.

The report of the committee is attached herewith.

UGC invites feedback/suggestions from the stakeholders on the report **latest by 16.08.2019** on promotingresearch1@gmail.com.

(Prof. Rajnish Jain)
Secretary

Improving the Quality of Research by Faculty and Creation of New Knowledge and Strategies for Improving Research Culture in Colleges/Universities

Preamble

Research in any discipline of thought is an ongoing process of enhancing the existing fund of knowledge by exploring new frontiers that challenge the human quest for understanding reality. The question of the quality of research underscores whether the research in any branch of knowledge enriches knowledge ecosystem in a significant manner. The question of the quality of research has become the centre of academic, professional, and higher education policy debates all over the world.

The Indian University System functions in heterogeneous conditions comprising of social, linguistic, regional, economical, locational (metropolitan, urban, mofussil, tribal), infra-structural (rich, moderate, poor), and aspirational (International, National, and Regional) diversities prevailing across the country. These diversities are reflected in the student and teacher composition that influence teaching and research activity in Indian Universities. The question of quality of research in India has to be situated in this complex social milieu.

In India the question of quality of research has come to the fore due to enormous growth of research which is produced mainly as a part of doctoral research Ph.D. in the University system during the last few decades. The growth in numbers and the subsequent issues of the quality of research output call for a comprehensive review of the existing situation and to suggest corrective measures to be taken to improve the state of research in India.

➤ **Research Quality:**

A Ph.D. dissertation is the first indicator of a researcher's ability to produce good quality research. Considerations of the quality of research involve understanding what quality is and what are its parameters. It is universally agreed that high quality of research refers to a process that covers all aspects of the object of study by raising pertinent questions and arriving at reliable answers which significantly enhance the prevailing knowledge base and create new knowledge.

• **Standards of Research Quality and its Determinants:**

The standards of research quality are premised on (a) the principles of scientific inquiry, (b) the theoretical underpinnings and philosophy of science, (c) a consensus of community of scholars. Accordingly, following serve as the most general determinants of quality research in all streams of knowledge:

- i) Significant questions which can be investigated, empirically as well as conceptually
- ii) Independent, balanced, and objective approach to the research problem with transparency
- iii) Use of appropriate methodology to address the research problem

- iv) Proper conceptualization of the research problem and reliable measurement of variables¹
- v) Engagement with internal and international intellectual networks and learned societies²

➤ **Research Quality in India: Background**

Research in the field of Science, Engineering, Technology, Social Science, Commerce, Law, Management and Humanities is an important component in the domain of Higher Education. The main trends in enrolments to research degree (Ph.D. and M.Phil.) revealed by the data available from MHRD's All India Survey on Higher Education³ (AISHE) are as follows.

Enrolment to Research Degree

- The number of students opting to pursue research degree presented in Figure 1 shows an increasing trend. The total Ph.D. admissions doubled from 77798 in 2010-11 to 161412 in 2017-18. The implicit growth rates in these numbers show that the overall Ph.D. admissions increased at the rate of 10 per cent per annum during this period. In comparison to Ph.D. admissions, the enrolments to M.Phil Course increased at much slower pace, that is, at 5.2 per cent per annum. The number of women opting for Ph.D. course increased at a higher pace than men during this period though their absolute number remains less than men for all these years.
- The discipline-wise composition of Ph.D. enrollments presented in Figure 2 highlight that maximum numbers of Ph.D. students are enrolled in Science, Engineering and Technology stream followed by Social Science/Humanities.
- The percentage of Ph.D. enrolments shows declining trend in State Public Universities, Institutes of National Importance and Central Universities whereas it is on rise in Deemed Private Universities. This may have a reflection on quality of research produced at the doctoral degree level.⁴

Ph.D. Degrees Awarded

The Ph.D. degrees awarded (shown in figure 3) increased at 7.26 per cent per annum during 2012-13 to 2016-17 from the base level of 23630. The female Ph.D. awardees increased at a faster rate (9.35 per cent per annum) than male Ph.D. awardees (5.86 per cent per annum). This has reduced the gender gap in research at Ph.D. level.

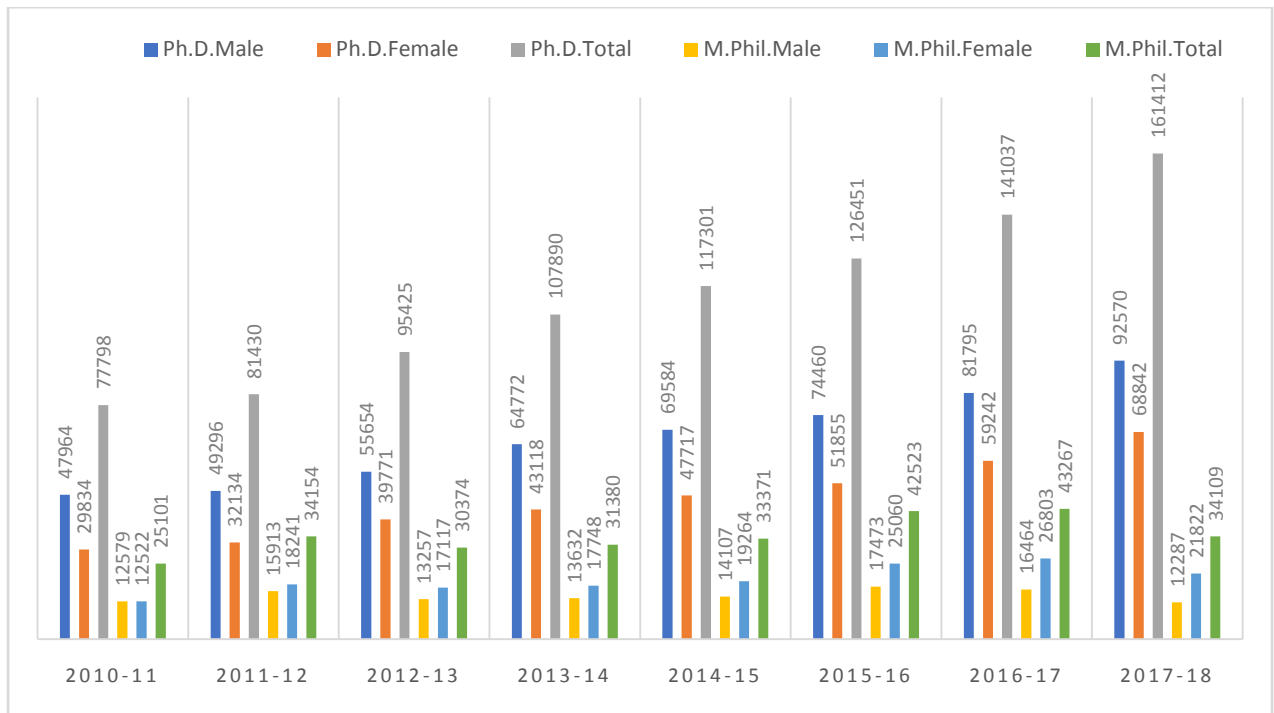
¹ National Center for the Dissemination of Disability Research, 'What Are the Standards of Quality Research', American Institutes for Research, Focus Technical Brief No.9, 2005

² DFID South Asia Research Hub, Social Science Research in India: A Mapping Report, September 2011

³ Government of India's Ministry of Human Resource Development has been conducting All India Survey on Higher Education to collect data on salient features of Higher Education 2010-11 onwards. This is the only source that portrays various trends in higher education that informs education policies.

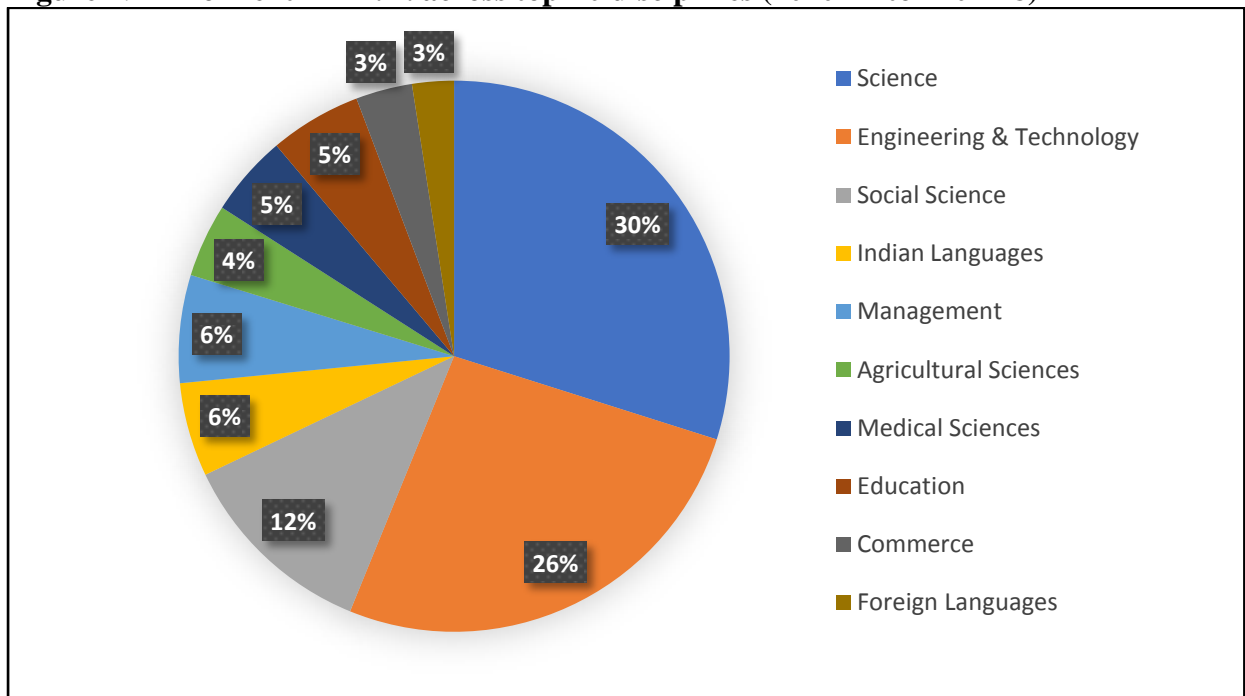
⁴ This highlight is sourced from the key findings presented in the reports of AISHE.

Figure1: Enrolment in M.Phil. And Ph.D. by Gender (2010-11 to 2017-18)



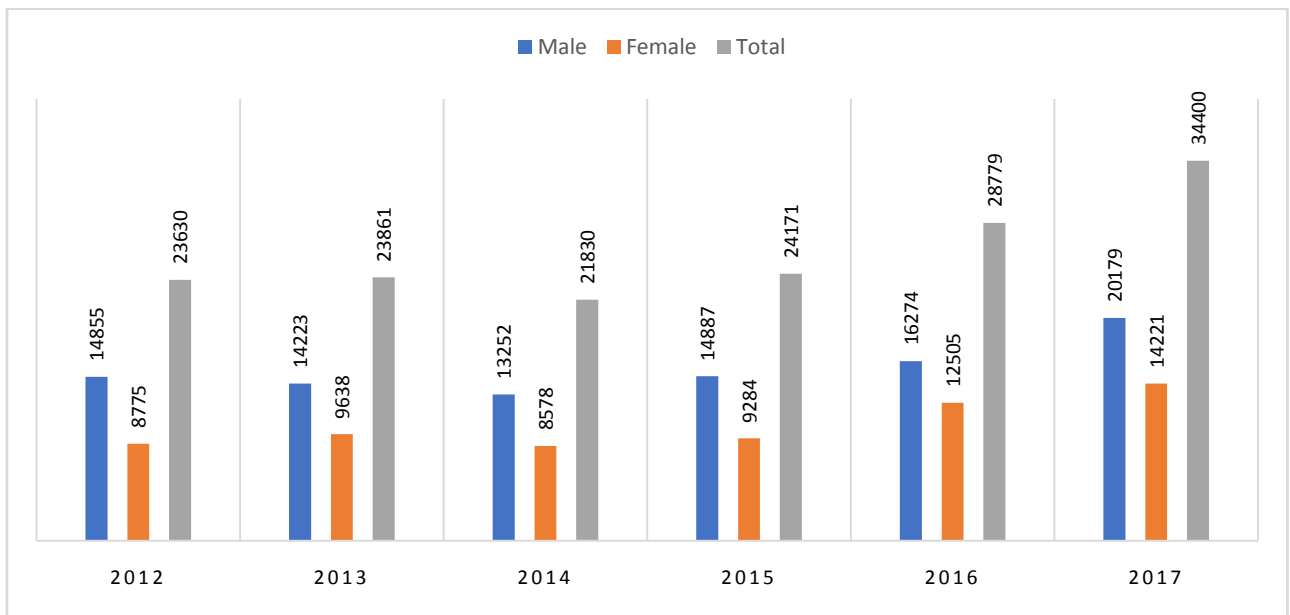
Source: Government of India, Ministry of Human Resource Development. Report of All India Survey on Higher Education for respective years (2010-11 to 2017-18)

Figure 2: Enrolment in Ph.D. across top-10 disciplines (2010-11 to 2107-18)



Source: Government of India, Ministry of Human Resource Development. Report of All India Survey on Higher Education for respective years (2010-11 to 2017-18).

Figure3: Number of Ph.D. Degrees Awarded



Source: Government of India, Ministry of Human Resource Development. Key Findings in Report of All India Survey on Higher Education for respective years (2010-11 to 2017-18).

➤ **The Present State of Research in Indian Universities:**

There is a consensus that barring a few exceptions, the overall quality of University and College level research in India is far from satisfactory. Indeed, in many institutions the quality of research is alarmingly poor. In large number of cases theses do not conform to international standards and do not make significant contributions to theoretical or applied aspects of a given discipline. The following factors may be cited for this state of affairs:

(a) **Increasing Numbers:**

As mentioned above during the last few decades the number of admissions to Ph.D. /M.Phil. courses have almost doubled during the years 2010 to 2017; from 77,798 to 161,412. The primary reason for this surge is mainly due to making Ph.D., as one of the pre-requisites for entry for faculty positions in universities and also for career advancement.

(b) **Infrastructure and funding:**

There is lack of qualified human resource for research guidance and poor physical infrastructure and inadequate funding.

(c) **Institutional Framework:**

- (i) University system's emphasis on teaching over research.
- (ii) Rigid admission rules (for example bar on change of discipline, age restrictions imposed institutionally and lack of flexibility to exercise academic judgment in genuine cases that do not comply with admission rules but are capable of producing quality research).
- (iii) Lack of inter, multi, and trans-disciplinary culture in universities.

- (iv) The absence of academic mentorship provided by senior faculty members in balancing teaching loads and research requirements.⁵

(d) Publication Ethics and Peer Review Culture:

The mandatory requirement of publications in journals/conference proceedings for award of doctoral degrees and as a metric in evaluating faculty under the API score has resulted in a proliferation of predatory journals and conferences, which have abandoned classical peer review as a method of quality control. Indian academics have contributed 35% of all articles published in various kinds of fake journals between 2010 and 2014⁶. International Consortium of Investigative Journalists has identified over 11,000 fake journals during the five-year period (2010-2015)⁷. Studies have found that from a total article volume published in predatory journals the large share of articles in engineering journals, followed by biomedicine and social sciences (Shen & Björk, 2015)⁸.

Plagiarism and data manipulation are issues of great concern, which damage the credibility of research emanating from our institutions. Institutions must take the responsibility for ensuring academic standards and for emphasising, to both students and faculty, the importance of maintaining the highest standards of integrity in academic research. Centralised rules and regulations, imposed across a large and diverse higher education system, cannot serve as a substitute for strict and vigilant internal academic processes at our institutions.

(e) The Quality of Students seeking admission to Ph.D. Programs:

- (i) Majority of students are motivated to pursue Ph.D. to get entry into the teaching profession and subsequent career advancement. They often drift into academia for various extraneous reasons and drift out of it or stay put for want of a better option.
- (ii) A large number of students taking admission to Ph.D. programs carry with them accumulated deficit of disciplinary knowledge and research methodology and often even lack communication skills and linguistic competence.

➤ **Research Quality and Culture of Innovation:**

- The higher education system within which Indian University System operates is marked by regional, socio-cultural, linguistic and institutions related structural diversities. Given these diversities, the strengthening of research culture in Indian higher education requires multi-pronged activities beginning with a bottom-up than a top-down, “one-size-fits-all” approach to introduce a culture of research which is anchored in robust classroom pedagogy and curricula designed to arouse intellectual curiosity and its appropriate channelization and imparting of research tools and techniques to ensure that it eventually reaches fruition. This would necessitate replacement of acquisition of information through rote-learning and the inadequate system of assessment by an open-ended, problem-

⁵Committee to Advise on Renovation and Rejuvenation of Higher Education (Yashpal Committee), 2009 <https://www.aicte-india.org/downloads/Yashpal-committee-report.pdf> accessed on 4 June 2019.

⁶<https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-015-0469-2> accessed on 31 May 2019.

⁷<https://web.archive.org/web/20170111172309/https://scholarlyoa.com/individual-journals/> accessed on 31 May 2019.

⁸ Shen, C., & Björk, B. C. (2015). ‘Predatory’ open access: a longitudinal study of article volumes and market characteristics. *BMC medicine*, 13(1), 230.

driven learning process.

- The research activity in Indian University system is still largely governed by the age-old disciplinary boundaries in which academic departments function. It is imperative that disciplinary boundaries break down to pave way to inter disciplinary, multi-disciplinary and even trans-disciplinary research. In the field of science, areas like modern biology have become increasingly interdisciplinary with major contributions from researchers formally trained in other disciplines like physics, chemistry, mathematics, computer science, engineering and medicine. Since Humanities and Social Sciences deal with human subject, their disciplinary boundaries often converge without losing their identities but resulting into a deeper understanding of human subject/social reality.

➤ **Research and Social Connect:**

- It is essential to make the community of researchers from all major streams of knowledge and also various academic and regulatory bodies including the funding bodies, sensitive to the idea that the social, ethical, and legal aspects of their research activities are of emerging concerns worldwide. In order to sensitize the relevant communities, the participation of social scientists, ethicists, and legal thinkers need to be on board at any stage of marketization, monetization, patenting or even conceiving what kind of research one wants to pursue in any of the interdisciplinary convergent areas of modern science and technology. Likewise, inter and multi-disciplinary research in Humanities and Social Science could be well addressing the emerging concerns in social, political, economic, and cultural realities of India to deepen our understanding of the same.

Based on its extensive deliberations and consultations with representative members of the academic community, the committee makes the following recommendations for promoting and improving the quality of research in Indian universities and colleges. The measures suggested need to be implemented in the short term, while revamping curricula and teaching methods in undergraduate and post-graduate education⁹ over a longer term. The recommendations given below are grouped into two categories, specific and general. Broad suggestions for implementation are also provided.

Specific recommendations

Capacity Building

- i. **Classroom pedagogy, curricula and system of assessment:** Introducing robust curricula and classroom pedagogy to arouse intellectual curiosity and its appropriate channelization right from graduate level would be the first step to the bottom up approach to capacity building. Replacement of the inadequate system of assessment by an open-ended, problem-driven learning process will be a corollary.

⁹ National Knowledge Commission (2006-2009) <https://www.aicte-india.org/downloads/nkc.pdf#toolbar=0> accessed on 04 June 2019.

- ii. **Developing Writing Skills, Research Aptitude, and Awareness of Peer Review Culture:** To overcome the research-writing-skill deficiency among a large number of students, training programs on writing skills should be organized and theme-based writing should be a part of regular assignments. Peer reviewing of class room assignments will introduce students to peer review culture at an early stage.
- iii. **Promoting academic integrity:** It is important to ensure prevention of academic misconduct including plagiarism in academic writing among student, faculty, researcher and staff. Responsible conduct of research and safeguarding ethics and academic integrity in scientific research is extremely crucial.
- iv. **CARE Reference List:** Any publications in predatory journals or presentations in predatory conferences should not be considered for academic credit for selection, confirmation, promotion, performance appraisal, award of scholarship or academic degrees or credits in any form. Research publications only from journals indexed in CARE Reference List of Quality Journals should be used for all academic purposes.
- v. **Remedial Teaching:** The first semester in college and university should have its main focus on remedial teaching and nurturing of generic as well as discipline-oriented skills and knowledge, which are indispensable for academic advancement. It logically follows that teachers should be trained (through HRDCs, TLCs, etc.) to facilitate such a teaching-learning process in a situation-specific manner.
- vi. **Encouraging Vernacular Languages:** In view of the substantial and increasing vernacularization of social science education, arousing of intellectual curiosity and also the imparting of research tools and techniques can be achieved only by producing high-quality literature comprising books (especially textbooks, discipline-specific dictionaries and encyclopedias) and journals in various Indian languages. A robust translation program is required for this purpose.
- vii. **Exposure to centers of excellence in Science, Social Science and Humanities** to experience the environment in which there is a serious engagement in research and also an interaction with researchers.
- viii. **Workshops of short duration to exchange ideas** on specific themes, issues or problems to arouse curiosity prompting the students to engage in research related inquiry.
- ix. **Use of Technology and Media Platforms:** New technologies and media platforms must be fully and creatively utilized to reach out to knowledge-seekers within and outside the formal academic framework. Well-designed and conducted Massive Open Online Courses could play a pivotal role in this respect.
- x. **Policy Internship:** As part of capacity building, short duration (three months) internship in policy organizations in various sectors will make students know how research informs policy making. Similarly, such internships in research institutes and centers of advance learning will expose the students to various aspects of research in action.

Promoting a culture of research amongst faculty and students

- i. **Faculty Recruitment:** UGC must re-examine current practices in recruitment of faculty members, which make the best candidates trained in interdisciplinary areas ineligible for recruitment in most universities/colleges. It is imperative to revisit the precise wording of advertisements issued by universities/colleges for faculty recruitment to ensure that candidates with interdisciplinary backgrounds are not excluded.
- ii. **Seed Grant for New Faculty:** A new scheme of the UGC may be initiated which will provide seed grants for newly appointed faculty (preferably within one year of appointment) in universities/colleges on a competitive basis based on the prior research experience and the quality of the proposed research project. This scheme should be distinct from the existing minor and major research projects.
- iii. **Sabbatical Leave:** The UGC should encourage and support state universities and affiliated colleges to put in place a rigorous but generous program that would offer sabbatical leave to mid-career teachers for pursuing research and writing books/monographs which consolidated accumulated original research knowledge. Mid-career national level sabbatical awards on a competitive basis for a year may be introduced enabling 50-100 faculty-members to pursue research which may also provide an opportunity for faculty to build collaborative contacts with major national/international institutions. Such opportunities must be mandated in both public and private institutions.
- iv. **Postdoctoral Fellowships in Social Sciences and Humanities:** The committee strongly recommends the introduction of at least 100 postdoctoral Fellowship per year in social sciences and humanities (*under Dr.S. Radhakrishnan fellowship program*). This Fellowship program can be supervised by reputed experts, coordinated by 2 or 3 outstanding academics independently (similar to D. S. Kothari postdoctoral fellowship program in sciences). The applications may be received and processed on-line, based on rigorous peer-review. The fellowships may be awarded initially for a period of two years, with a possibility of extension for one more year, subject to a rigorous review. Such a program will enable creation of a pool of prospective faculty members in the social sciences.
- v. **Travel Grants for Faculty and Students:** Increase the number of grants for travel by Ph.D. scholars/faculty members to present their research work in reputed international conferences. This may promote a culture of research at the institution level (currently there are extremely limited international travel grants for sciences/humanities/social sciences). An efficient online system should be put in place for processing grant applications. Extreme care should be exercised to avoid funding for travel to poor quality and predatory conferences.
- vi. **Annual Faculty/Student Conclave in Social Sciences and Humanities:** UGC may introduce a new scheme for promoting an annual conference/conclave for Ph.D. research scholars/Postdoctoral Fellows/Teachers across disciplines to meet and exchange ideas. The organization of such meetings should be done in consultation with senior academics who can serve as informal mentors in different disciplines. This is particularly important in the Social Sciences and Humanities

and where unlike in the Sciences active professional societies that encourage student participation do not exist.

- vii. **Fellowships for Ph.D. Scholars for Self-financed/ Minimal financial support on a Competitive Basis:** Presently a limited number of students nation-wide qualify for financial support under CSIR/UGC-JRF NET examination and other sources both governmental and institutional. A large number of Ph.D. scholars are provided minimal support or are self-financed. UGC should consider introducing a new scheme which will evaluate students who have already completed 1 to 2 years of research on a competitive basis for providing fellowship support for 2 to 3 more years.
- viii. **Teaching Assistantship as Part of Doctoral Program:** Research scholars who have completed qualifying examination may be encouraged to participate in teaching program up to a maximum of 3-4 class hours per week (classes, assisting in laboratory, tutorials and make-up classes). This would prepare them for their career after Ph.D.¹⁰

Specific measures for promotion of high quality research

- i. **Creation of Social Sciences/Humanities Research Board:** For research in the physical and natural sciences in India a great deal of funding comes from the Ministry of Science and Technology. In contrast, the social sciences/humanities do not receive such organized research funding from the government. The committee recommends that the UGC take the initiative in creating a Social Sciences/Humanities Research Board, which should function autonomously, under the umbrella of the UGC and obtain a special budgetary allocation for this purpose. The members of this board must be senior professors, national awardees and academics with proven track record of high-quality publications in the field. Regional representation will be useful. The Board may introduce special initiatives which promote inter-university collaborations along the lines of existing inter-university centers set-up in specialized areas of science.
- ii. **Performance Based Strengthening CAS, DSA and UPE:** The committee recommends that the UGC Centre for Advanced Studies (CAS) scheme should focus on encouraging groups working in subject-specific areas, while the Department of Special Assistance (DSA) can be more broad-based. Historically, these schemes have proved to be very useful for enhancing quality of research in several Universities. Universities with potential for excellence (UPE) is also another successful program of the UGC. These programs need to be continued and strengthened further. More funds for inducting excellent quality manpower may be provided under these programs. **Performance-based strengthening of CAS/DSA/UPE programs will be critical in enhancing research quality in university departments which have performed well in the past.**
- iii. **Inter-Institutional Collaboration:** The committee recommends that a new scheme be introduced by the UGC, which will provide funding for major research

¹⁰ National Knowledge Commission (2006-2009) <https://www.aicte-india.org/downloads/nkc.pdf#toolbar=0> accessed on 04 June 2019.

projects in all disciplines which will involve collaborative projects among state- and central universities/national institutions on the one hand and colleges on the other. Each of these projects should have a mentor. **UGC may set up an Empowered Committee for making guidelines and for implementing a rigorous selection procedure of the submitted projects.**

Reform of academic administration to promote research

i. Dean of Research and Development in Universities/Institutions: Every university must appoint a Dean of research and development, who will be responsible for ensuring the smooth functioning of all externally funded research grants/projects in the institution. The Dean of research should have the financial authority to ensure unimpeded utilization of research grants obtained by faculty. Currently long delays in financial procedures as well as appointment of Vice Chancellors results in non-utilization of sanctioned funds. It must also be ensured that funds received under research projects as well as CAS/DSA/UPE schemes are available to researchers and not utilized for other expenditures of the universities and colleges. The Dean of R&D should be a senior member of the faculty with significant research experience. The Office of the Dean of Research must also facilitate the culture of entrepreneurship amongst Faculty and Students of the University.

Some general recommendations

1. **Academic Leadership and Appointment of Vice Chancellors:** The UGC/MHRD as well as state governments must seriously review the mechanism by which Vice Chancellors are appointed. Good academic leadership is essential for improving the research culture, including the quality of Ph.D./M.Phil. degrees. It is also extremely important that to ensure that the Governing Bodies of the universities [syndicate/executive council etc.] must have eminent academics as members.
2. **Filling up Vacancies in Universities:** It needs to be ensured that not more than 10 per cent of approved teaching positions in public funded universities/colleges remain vacant for more than 1 year.
3. **Regional Research Consortia:** UGC should create regional research consortia to facilitate the following:
 - a. Creating a research consortia ensuring interaction with colleges and universities/national institutions.
 - b. Share resources, equipment and laboratory facilities.
 - c. Share library resources.
 - d. Exchange of faculty across these institutions.

UGC regional centres may co-ordinate this.

4. **Linking Departments and Colleges to Universities and National Institution of Importance:** The colleges/departments with potential for research need to be linked

with universities, advanced research institutes or national institutions.¹¹ It is important to nurture in-house research and enhance the quality of work, rather than sign MoU's with no concrete collaborative research activities. **A mechanism should be in place for offering merit-based support within a few weeks of receipt of such application.**

5. **Introduction of Four-year Undergraduate Program:** Increase the number of universities offering the four-year undergraduate program (NEP-2019), with a strong research component to provide the pipeline for good quality students for the doctoral program. Also, the existing two-year M.A./M.Sc. programs should have a research project with a requirement of typically 6-10 credits. It may important to stop undergraduate programs that are limited in scope (for example in specialized subjects like Biotechnology or Bioinformatics etc.), as they provide training only in specialized subjects. All full-time under-graduate programs must be broad-based. Professional/vocational courses that facilitate jobs should be run separately as Diploma courses.

Implementation

1. **Empowered Committee to Work with UGC Nodal Officer for New Schemes:** The UGC should set-up Empowered Committees of eminent academics, with dedicated administrative support, coordinated by a nodal officer at the UGC, to ensure that all new initiatives decided upon by the commission are quickly acted upon.
2. **Revamping UGC Regional Centres:** UGC has set up 7 regional offices. The committee recommends strengthening of these regional offices to facilitate funding and monitoring of research activities in the region. Adequate financial and administrative powers should be delegated to the regional office. The expertise required to carry out academic/project monitoring etc. can be drawn at the regional level. There should be an Empowered Committee of academics of repute from the respective region and outside, which will monitor the work of Regional Centers.
3. **Capacity Building of UGC Staff to Build in-house Expertise:** The committee recognizes that implementation of several measures to enhance research quality in universities will undoubtedly result in additional burden on existing administrative system at the UGC. Promotional measures to build expertise with specialized knowledge amongst the administrative staff of the UGC may be necessary for implementation of new schemes.

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¹¹Committee to Advise on Renovation and Rejuvenation of Higher Education (Yashpal Committee), 2009 <https://www.aicte-india.org/downloads/Yashpal-committee-report.pdf> accessed on 4 June 2019.

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MINISTRY OF HUMAN RESOURCE DEVELOPMENT

UNIVERSITY GRANTS COMMISSION

NOTIFICATION

New Delhi

Proposed University Grants Commission (Minimum Standards and Procedures for Award of M.PHIL./PH.D. Degrees) Regulations

Regulations are framed in exercise of the powers conferred by clauses (f) and (g) of sub-section (1) of Section 26 of the University Grants Commission Act, 1956 (3 of 1956), and in supersession of the UGC (Minimum Standards and Procedure for Awards of M.Phil. /Ph.D. Degree) Regulation, 2009 and 2016, the University Grants Commission hereby makes the following Regulations, namely: -

1. Short title, Application and Commencement:

- 1.1 These Regulations may be called University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, **2019**.
- 1.2 They shall apply to every University established or incorporated by or under a Central Act, a Provincial Act, or a State Act, every affiliated college, and every Institution Deemed to be a University under Section 3 of UGC Act, 1956.
- 1.3 They shall come into force from the date of their publication in the Gazette of India.

2. Eligibility criteria for admission to the M.Phil./ Ph.D.programme:

- 2.1 Candidates for admission to the M.Phil./Ph.D.programme shall have a Master's degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.
- 2.2 A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/Differently-Abled and other categories of candidates as per the decision of the Commission from time to time, or for those who had obtained their master's degree prior to 19th September 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedures.

3. Eligibility criteria for admission to Ph.D. programme:

Subject to the conditions stipulated in these Regulations, the following are eligible to seek admission to the Ph.D. programme:

3.1 (i) Master's Degree holders satisfying the criteria stipulated under Clause 2 above.

(ii) The candidates who have completed undergraduate courses of minimum four-years duration in Engineering, Science, Law, Architecture, Social Sciences, Humanities and others approved by the appropriate bodies.

3.2 *For students coming out of existing four-year UG institutions, a minimum credit threshold is prescribed (preferably equivalent to a conventional first class. For example, CGPA of (3.0/4.0) or (7.5/10.0)).*

3.3 Candidates who have cleared the M.Phil. course work with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) and successfully completing the M.Phil. Degree shall be eligible to proceed to do research work leading to the Ph.D. Degree in the same Institution in an integrated programme. A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/differently-abled and other categories of candidates as per the decision of the University Grants Commission (UGC) from time to time.

3.4 *They should come through a national/state/university level entrance test that measures research aptitude, analytical skills, writing skills, comprehension and reasoning beyond the subject competency with the appropriate thresholds [with due relaxation for reserved category and other candidates similar to that in 2.2] being met. Institutions may conduct the interviews to select the candidates from the eligible applicants.*

3.5 A person whose M.Phil. dissertation has been evaluated and recommended for award of the degree, before the viva voce, may be admitted to the Ph.D. programme in any Institution.

3.6 Candidates possessing a Degree considered equivalent to M.Phil. Degree of an Indian Institution, from a Foreign Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions, shall be eligible for admission to the Ph.D. programme.

4. Duration of the Programme:

4.1 M.Phil. programme shall be for a minimum duration of two (2) consecutive semesters / one year and a maximum of four (4) consecutive semesters / two years.

4.2 Ph.D. programme shall be for a minimum duration of three years, including course work and a maximum of six years.

4.3 Extension beyond the above limits will be governed by the relevant clauses as stipulated in the Statute/Ordinance of the individual Institution concerned.

4.4 The women candidates and Persons with Disability (more than 40% disability) may be allowed a relaxation of one year *for M.Phil.* and two years for Ph.D. in the maximum duration. In addition, the women candidates may be provided Maternity Leave/Child Care Leave once in the entire duration of *M.Phil./Ph.D.* for up to 240 days.

5. Procedure for admission:

5.1 All Universities and Institutions Deemed to be Universities shall admit *M.Phil./Ph.D.* students through a National Entrance Test or an Entrance test conducted at the level of Individual University/Institution Deemed to be a University.

5.2 Higher Educational Institutions (HEIs) referred to in sub-clause 1.2 above and Colleges under them which are allowed to conduct M.Phil. and/or Ph.D. programmes, shall:

5.2.1 decide on an annual basis through their academic bodies a predetermined and manageable number of M.Phil. and/or Ph.D. scholars to be admitted depending on the number of available Research Supervisors and other academic and physical facilities available, keeping in mind the norms regarding the scholar-teacher ratio (as indicated in Para 6.5), laboratory, library and such other facilities;

5.2.2 notify well in advance on the institutional website and through advertisement in at least two (2) national newspapers, of which at least one (1) shall be in the regional language, the number of seats for admission, subject/discipline-wise distribution of available seats, criteria for admission, procedure for admission, examination centre(s) where entrance test(s) shall be conducted and all other relevant information for the benefit of the candidates;

5.2.3 Adhere to the National/State-level reservation policy, as applicable.

5.3 The admission shall be based on the criteria notified by the Institution, keeping in view the guidelines/norms in this regard issued by the UGC and other statutory bodies concerned, and taking into account the reservation policy of the Central/State Government from time to time.

5.4 HEIs as mentioned in Clause 1.2 shall admit candidates by a two-stage process through **National Level Entrance Tests or Equivalent Tests conducted by Universities/Institutions:**

5.4.1 Qualifying marks in the entrance test will be 50%. The syllabus of the Entrance Test shall consist of 50% of questions which tests research aptitude, while 50% shall be subject specific. The Entrance Test shall be conducted at the Centre(s) notified in advance (changes of Centres, if any, also to be notified well in advance) at the level of the individual Institute as mentioned in clause 1.2; and *provided that a relaxation of 5% of marks (from 50% to 45%) shall be allowed for the candidates belonging to*

SC/ST/OBC (Non-creamy layers)/Differently-abled category in the entrance examination conducted by the Universities. Provided further that, if in spite of the above relaxation, the seats allotted to SC/ST/OBC (Non-creamy layers)/Differently-abled categories remain unfilled, the concerned Universities shall launch a Special Admission Drive, for that particular category within one month from the date of closure of admissions of General Category. The concerned University will devise its own admission procedure, along with eligibility conditions to ensure that most of the seats under these categories are filled.

5.4.2 An interview/viva-voce to be organized by *the University/Institute* as mentioned in clause 1.2 *wherein* the candidates are required to discuss their research interest/area through a presentation before a duly constituted *Departmental Research Committee*. *For the selection of the candidates, a weightage of 50% to the entrance test and 50% to the performance in the interview/viva-voce shall be given.*

5.5 The interview/viva voce shall also consider the following aspects, viz. whether:

5.5.1 the candidate possesses the competence for the proposed research;

5.5.2 the research work can be suitably undertaken at the Institution/College;

5.5.3 the proposed area of research can contribute to new/additional knowledge.

5.6 The University shall maintain the list of all the M.Phil./Ph.D. registered students on its website on year-wise basis. The list shall include the name of the registered candidate, topic of his/her research, name of his/her supervisor/co-supervisor, date of enrolment/registration.

6. **Allocation of Research Supervisor:** Eligibility criteria to be a Research Supervisor, Co- Supervisor, Number of M.Phil./Ph.D. scholars permissible per Supervisor, etc.

6.1 Any regular Professor/Associate Professor of the University/Institution Deemed to be a University/College, with at least **five** research publications in *standard*, refereed journals/**book chapters as approved by the UGC** and any regular Assistant Professor of the university/institution deemed to be a university/college with a Ph.D. degree and at least **three** research publications in *standard*, refereed journals/ **book chapters** may be recognized as Research Supervisor. Provided that in areas/disciplines where there is no or only a limited number of refereed journals, the Institution may relax the above condition for recognition of a person as Research Supervisor with reasons recorded in writing.

Only a full-time regular teacher of the concerned University/Institution Deemed to be a University/College can act as a supervisor. **Adjunct faculty are not permitted to be research supervisors. However, Co-Supervisors from within the same department or other departments of the same institution or sister institutions may be permitted with the approval of the Research Advisory Committee. In specific cases of a formal institutional collaboration based on an MoU, UGC may approve faculty supervisors for Ph.D. candidates in the collaborating institutions.**

6.2 The allocation of Research Supervisor for a selected research scholar shall be decided by the Department concerned depending on the number of scholars per Research Supervisor, the available specialization among the Supervisors and research interests of the scholars as indicated by them at the time of interview/viva voce.

6.3 In the case of topics which are inter-disciplinary and where the Department concerned feels that the expertise in the Department has to be supplemented from outside, the Department may appoint a Research Supervisor from the Department itself, who shall be known as the Research Supervisor, and a Co-Supervisor from outside the Department/ Faculty/College/Institution on such terms and conditions as may be specified and agreed upon by the consenting Institutions/Colleges.

6.4 A research supervisor/co-supervisor across all levels (Professor, Associate Professor and Assistant Professor) can guide a maximum of Eight (08) M.Phil./Ph.D. students counted together.

Note: The supervisor should declare the number of M.Phil./Ph.D. students registered with him/her periodically to the university/institution. He/she cannot increase the number by using recognition from multiple universities/institutions.

6.5 In case of relocation of an *M.Phil./Ph.D.* woman scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the University to which the scholar intends to relocate, provided all the other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institution/ supervisor from any funding agency. The scholar will however give due credit to the parent guide and the institution for the part of research already done.

6.6 University teachers after superannuation may continue as co-guides for research students with the consent of the concerned authorities. Retired Professors holding an official position (such as Professor Emeritus / Distinguished Professor / Scientist Emeritus) may continue as Supervisors till they continue in the official position. Later they may act as Co-Supervisors with the concurrence of the Research Committee and the new Research Supervisor.

7. **Course Work:** Credit requirements, number, duration, syllabus, minimum standards for completion, etc.

7.1 Minimum number of credit requirement for Ph.D. programme should be at least 12 credits up to a maximum of 16 credits.

7.2 The course work shall be treated as prerequisite for M.Phil./Ph.D. preparation. A minimum of four credits shall be assigned to one or more courses on Research Methodology which could cover areas such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, field work, etc. Other courses shall be advanced level courses preparing the students for M.Phil./Ph.D. degree.

- 7.3 All courses prescribed for M.Phil. and Ph.D. course work shall be in conformity with the credit hour instructional requirement and shall specify content, instructional and assessment methods. They shall be duly approved by the authorized academic bodies.
- 7.4 The Department where the scholar pursues his/her research shall prescribe the course(s) to him/her based on the recommendations of the Research Advisory Committee (RAC), as stipulated under sub-Clause 8.1 below, of the research scholar.
- 7.5 All candidates admitted to the M.Phil. and Ph.D. programmes shall be required to complete the course work prescribed by the Department during the initial one or two semesters.
- 7.6 Candidates already holding M.Phil. degree and admitted to the Ph.D. programme, or those who have already completed the course work in M.Phil. and have been permitted to proceed to the Ph.D. in integrated course, may be exempted by the Department from the Ph.D. course work. All other candidates admitted to the Ph.D. programme shall be required to complete the Ph.D. course work prescribed by the Department.
- 7.7 Grades in the course work, including research methodology courses shall be finalized after a combined assessment by the Research Advisory Committee and the Department and the final grades shall be communicated to the Institution/College.
- 7.8 A M.Phil./Ph.D. scholar has to obtain a minimum of 55% of marks or its equivalent grade in the UGC 7-point scale (or an equivalent grade/CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the programme and submit the dissertation/thesis.
- 7.9 After completion of the course work and before the end of two years from the date of admission, a comprehensive and rigorous qualifying examination shall be conducted by a committee recommended by the Research Advisory Committee. It should test the comprehensive knowledge and research methodology in the broad discipline. The minimum score/grade that the student should obtain in the qualifying examination may be set by the institutions/universities.*

8. Research Advisory Committee and its functions:

- 8.1 There shall be a Research Advisory Committee, or an equivalent body for similar purpose as defined in the Statutes/Ordinances of the Institution concerned, for each M.Phil. and Ph.D. scholar. The Research Supervisor of the scholar shall be the Convener of this Committee. This Committee shall have the following responsibilities:

- 8.1.1 To review the research proposal and finalize the topic of research;

- 8.1.2 To guide the research scholar to develop the study design and methodology of research and identify the course(s) that he/she may have to do.
- 8.1.3 To periodically review and assist in the progress of the research work of the research scholar.
- 8.2 A research scholar shall appear before the Research Advisory Committee once in six months to make a presentation of the progress of his/her work for evaluation and further guidance. The six-monthly progress reports shall be submitted by the Research Advisory Committee to the Institution/College with a copy to the research scholar.
- 8.3 In case the progress of the research scholar is unsatisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the Research Advisory Committee may recommend cancellation of registration from the program.
- 9. Evaluation and Assessment Methods, minimum standards/credits for award of the degree, etc.:**
- 9.1 The overall minimum credit requirement, including credit for the course work, for the award of M.Phil. degree shall not be less than 24 credits.
- 9.2 Upon satisfactory completion of course work and obtaining the marks/grade prescribed in sub-clauses 7.8 above, as the case may be, the M.Phil./Ph.D. scholar shall be required to undertake research work and produce a draft dissertation/thesis within a reasonable time, as stipulated by the Institution concerned based on these Regulations.
- 9.3 Prior to the submission of the dissertation/thesis, the scholar shall make a presentation in the Department before the Research Advisory Committee of the Institution concerned which shall also be open to all faculty members and other research scholars. The feedback and comments obtained from them may be suitably incorporated into the draft dissertation/thesis in consultation with the Research Advisory Committee.
- 9.4 It is desirable that M.Phil./Ph.D. research work is published in standard, refereed journals/books and the institutions may take steps to encourage research publications. Quality assessment of M.Phil./Ph.D. degrees should be the responsibility of the institutions/universities.*
- 9.5 The Academic Council (or its equivalent body) of the Institution shall evolve a mechanism using well developed software and gadgets to detect plagiarism and other forms of academic dishonesty. While submitting for evaluation, the dissertation/thesis shall have an undertaking from the research scholar and a certificate from the Research Supervisor attesting to the originality of the work, vouching that there is no plagiarism and that the work has not been submitted for the award of any other degree/diploma of the same Institution where the work was carried out, or to any other Institution.

9.6 The M.Phil. dissertation submitted by a research scholar shall be evaluated by his/her Research Supervisor and at least one external examiner who is not in the employment of the Institution/College. The viva-voce examination, based among other things, on the critiques given in the evaluation report, shall be conducted by both of them together, and shall be open to be attended by Members of the Research Advisory Committee, all faculty members of the Department, other research scholars and other interested experts/ researchers.

9.7 The Ph.D. thesis submitted by a research scholar shall be evaluated by his/her Research Supervisor and at least *two external examiners, who are expert in the field and not in employment of the Institution/College. Examiner(s) should be academics with good record of scholarly publications in the field.* The viva-voce examination, based among other things, on the critiques given in the evaluation report, shall be conducted by the Research Supervisor and at least one of the two external examiners, and shall be open to be attended by Members of the Research Advisory Committee, all faculty members of the Department, other research scholars and other interested experts/researchers.

9.8 *The comments of the examiners should be given to the student well in advance and the response of the student should be reviewed by the supervisor.*

9.9 The public viva-voce of the research scholar to defend the dissertation/thesis shall be conducted only if the evaluation report(s) of the external examiner(s) on the dissertation/thesis *recommends acceptance*. If the evaluation report of the external examiner in case of M.Phil. dissertation, or one of the evaluation reports of the external examiner in case of Ph.D. thesis, *recommends rejection*, the Institution shall send the dissertation/ thesis to another external examiner out of the approved panel of examiners and the viva-voce examination shall be held only if the report of the latest examiner is satisfactory. If the report of the latest examiner is also unsatisfactory, the dissertation/ thesis shall be rejected, and the research scholar shall be declared ineligible for the award of the degree.

9.10 The Institutions shall develop appropriate methods so as to complete the entire process of evaluation of M.Phil. dissertation/ Ph.D. thesis within a period of six months from the date of submission of the dissertation/thesis.

9.11 *After the thesis has been examined and approved, the examiners' names and institutional addresses may appear in the final copy of the thesis, subject to prior consent of the examiners.*

10. Academic, administrative and infrastructure requirement to be fulfilled by Post Graduate Colleges for getting recognition for offering M.Phil./Ph.D. programmes:

10.1 Post Graduate Colleges may be considered eligible to offer M.Phil./Ph.D. programmes only if they satisfy the availability of eligible Research Supervisors, required infrastructure and supporting administrative and research promotion facilities as per these Regulations.

10.2 Post Graduate Departments of Colleges, Research laboratories of Government of India/State Government with at least two Ph.D. qualified teachers/scientists/other academic staff in the Department concerned along with required infrastructure, supporting administrative and research promotion facilities as per these Regulations, stipulated under sub-clause 10.3, shall be considered eligible to offer M.Phil./Ph.D. programmes. Post Graduate Colleges should additionally have the necessary recognition by the Institution under which they operate to offer M.Phil./Ph.D. programme.

10.3 Colleges with adequate facilities for research as mentioned below alone shall offer M.Phil./Ph.D. programmes:

10.3.1 In case of science and technology disciplines, exclusive research laboratories with sophisticated equipment as specified by the Institution concerned with provision for adequate space per research scholar along with computer facilities and essential software, and uninterrupted power and water supply;

10.3.2 Earmarked library resources including latest books, Indian and International journals, *e-journals*, extended working hours for all disciplines, adequate space for research scholars in the Department/ library for reading, writing and storing the study and research materials;

10.3.3 Colleges may also access the required facilities of the neighbouring Institutions/Colleges, or of those Institutions/Colleges/R&D laboratories/Organizations which have the required facilities.

10.4 All requirements for M.Phil./Ph.D. degree of such candidates must be duly fulfilled. It is the joint responsibility of the responsibility of the affiliated colleges, concerned university departments and universities/institutions.

11. Ph.D./M.Phil. through Distance Mode and in Regular Employment:

11.1 Notwithstanding anything contained in these Regulations or any other Rule or Regulation, for the time being in force, no University; Institution, Deemed to be a University and College shall conduct M.Phil. and Ph.D. programmes through distance education mode.

11.2 *Candidates in regular employment will be allowed provided all the conditions mentioned in the extant Ph.D. regulations are met. The minimum residency period should be two years.*

12. *Institutions may frame appropriate guidelines for admission of some categories of individuals such as retired professionals with appropriate expertise who have served in government/private/defense sector for admission to Ph.D. programmes such candidates may be granted exemptions regarding the quantum of course work to be carried out. All other regulations for the award for Ph.D. will remain the same.*

13. Award of M.Phil./Ph.D. degrees prior to Notification of these Regulations, or degrees awarded by foreign Universities:

- 13.1 Award of degrees to candidates registered for the M.Phil./Ph.D. programme on or after July 11, 2009 till the date of Notification of these Regulations shall be governed by the provisions of the UGC (Minimum Standards and procedure for Awards of M.Phil./Ph.D. Degree) Regulation, 2009 and 2016.
- 13.2 If the M.Phil./Ph.D. degree is awarded by a Foreign University, the Indian Institution considering such a degree shall refer the issue to a Standing Committee constituted by the concerned institution for the purpose of determining the equivalence of the degree awarded by the foreign University.

14. Depository with INFLIBNET/*Institutional Electronic Archive*:

- 14.1 Following the successful completion of the evaluation process and before the announcement of the award of the M.Phil./Ph.D. degree(s), the Institution concerned shall submit an electronic copy of the M.Phil. dissertation/Ph.D. thesis to the INFLIBNET/*Institutional Electronic Archive*, for hosting the same so as to make it accessible to all Institutions/Colleges.
- 14.2 Prior to the actual award of the degree, the degree-awarding Institution shall issue a provisional Certificate to the effect that the Degree has been awarded in accordance with the provisions of the UGC Regulations.

Notwithstanding anything stated in the preceding regulations, the UGC is empowered to consider requests, in exceptional cases, for waiver or modifications of any of the above regulations.

Justification for Changes Suggested in the UGC (Minimum Standards and Procedures for Award of M.Phil and Ph.D. Degrees) Regulations

3.1. This clause has been introduced to permit graduates of four year degree programs (cf BTech, BSc (Research)) to enrol for Ph.D. programs. Direct admission to Ph.D. programs is permitted at national institutions like IITs .

The four year undergraduate degree is the requirement for entry to Ph.D. programs in US Universities.

3.2 This specifies the minimum performance requirement in the four year programs.

3.4 The committee strongly believes that a formal test and interview are essential for screening candidates for selection to Ph.D. programs. This is already done in most national institutions and is being explicitly stated in the Regulations.

5.4.1 The specification of the percentage of marks assigned to the test and the interview for Ph.D. selections as 50% was also discussed extensively. Many state and private institutions need to enforce stricter selection criteria if quality standards of research are to be maintained.

5.4.2 Elaborates the interview requirement.

6.1 The existing section on allocation of Research Supervisors has been reworded. The specific cases of formal inter-institutional collaboration with MOUs can now be considered by UGC for waiver of the condition that supervisors must be regular faculty of the degree granting institution. This provision may be important to encourage cross- disciplinary interactions in some areas. As an example, I might cite the case of applications of modern biology to provide a mechanistic understanding of the efficacy of traditional medicine.

6.4 This modification removes the distinction between various levels of the faculty hierarchy in determining the number of students permissible to be registered under a single supervisor. The number is the existing maximum of **eight**. This modification has attracted both positive and negative responses from the many experts who reviewed the drafts. After considering all viewpoints, the Committee reiterates its view that younger faculty, who are good performers, should not be restricted by a ceiling which distinguishes them from senior faculty. It should really be the responsibility of institutional structures to determine student allocation in a manner that enhances research activity.

6.6 This provision facilitates the involvement of senior faculty, after formal retirement, in research guidance. Specifically, professors who have been given honorific designations have presumably been recognised for their sustained academic performance. It seems appropriate that such individuals should also be permitted to act as Research Supervisors. The provision is an enabling one and institutions can, of course, interpret this clause accordingly.

7.1 This clause specifies a minimum credit requirement in Ph.D. courses. Departments should formulate good pre-Ph.D. course programs to help students with diverse backgrounds to acquire a good understanding of the fundamentals of the disciplines in which they propose to do research.

7.9 The Comprehensive/ Qualifying examination is already a standard requirement in national institutions like IITs and IISc. The Committee is strongly of the opinion that this qualifying step must be rigorously introduced in all Ph.D. granting institutions.

9.4 The Committee recommends that the mandatory publication requirement prior to award of the Ph.D. degree be removed. This clause has already attracted public attention. The Committee strongly endorses this change, as it will serve to inhibit the flood of papers of doubtful academic value that appear in an ever increasing number of predatory journals. The requirement of publications can be left to departments and institutions, who must take responsibility for ensuring quality.

9.7 This is a minor rewording of the existing provision.

9.8 The Committee recommends that examiner's comments must be given to students before the viva voce and responses obtained wherever necessary.

9.11 This is a suggestion that examiners names appear on the thesis wherever the examiners have provided consent.

10.4 For Ph.D. degrees based on research work carried out in colleges it must be the joint responsibility of both the college and the concerned University department to ensure that all formal requirements are satisfied.

11.2 Specifies the minimum residency period for candidates who are in regular employment.

11.1, an existing regulation, bars distance mode Ph.D. registration.

12. This clause provides for external Ph.D. candidates with appropriate professional experience.

14.1 Thesis deposition may be done in INFLIBNET or Institutional Electronic Archives which can then be linked.

The concluding sentence has been introduced so that the UGC retains the power of waiver of any regulation after due consideration.

June 10, 2019