

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
REGULATIONS GOVERNING THE DEGREE
OF
DOCTOR OF PHILOSOPHY(Ph.D) - Amended 2017
[With effect from June 2017]

Preamble

*These Regulations Governing the Degree of Doctor of Philosophy (Ph.D.)-Amended 2017 have been framed to **amend** the earlier Regulations of 2014 on this subject with a view to fulfill the provisions in the UGC (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, 2016 and UGC Gazette Notification (Specification of Degrees), 2014. They also take into account the experience of the University in conducting the Ph.D. programme during the last decade or so and aim at ensuring a high standard for the Ph.D. conferment by the University.*

Ph.D.-1 SHORT TITLE AND COMMENCEMENT

- Ph.D.- 1.1** These Regulations shall be called “VTU Regulations Governing the Degree of Doctor of Philosophy (Ph.D.)-Amended 2017”.
- Ph.D.-1.2** These shall come into force from the date of their notification by the University and be applicable for the candidates seeking registration for Ph.D. in the Faculty of Engineering, Faculty of Architecture, Faculty of Science, Faculty of Management Studies and Interdisciplinary Subject Areas.
- Ph.D.-1.3** All correspondence with the University regarding the Ph.D. programme, like Reports/Presentation /Thesis shall be in English language only.

Ph.D.-2 DEFINITIONS

- Ph.D.-2.1** In these Regulations unless the context requires otherwise or it is specifically so defined:
- a) ‘Academic Senate (AS)’, ‘Board of Studies (BoS)’, ‘Executive Council (EC)’, ‘Faculty’ mean the respective Authorities of the University.
 - b) ‘Admissions Committee’ means a committee constituted by the University to carry out the activities concerning the admission of students to the Ph.D. programme.
 - c) ‘AICTE’ means the All India Council for Technical Education established at New Delhi by an Act of Parliament in 1987.
 - d) ‘Coursework’ means the courses prescribed as a part of the Ph.D. programme, which the candidate shall successfully complete as a pre-requisite.
 - e) ‘Co-supervisor’ means the additional Research Supervisor who supervises/ guides the doctoral research of a candidate along with the Research Supervisor.
 - f) ‘Degree at Undergraduate/Postgraduate/Doctor of Philosophy level’ means UG/PG/Ph.D.
 - g) ‘Doctoral Committee’ means the Research Advisory Committee constituted by the University to review the research progress of a candidate for Ph.D.
 - h) ‘FIP’ means the Faculty Improvement Programme of UGC.
 - i) ‘GoI’ means the Government of India.
 - j) ‘GoK’ means the Government of Karnataka.
 - k) ‘Intake’ means the number of students sanctioned for admission to a Research Centre/Faculty of the University in a year.

- l) 'Integrated Degree' means a higher degree award combining the requirements of two Degrees in sequence conducted in a shorter time frame, e.g., M.Sc.(Engg.) by Research / M. Tech. + Ph.D. Degree in less than *five* years.
- m) 'NRI/FN/PIO' means Non-Resident Indian/Foreign National/Person of Indian Origin in abbreviated form.
- n) 'QIP' means Quality Improvement Programme of the GoI.
- o) 'Refereed Journal' means a reputed professional journal or literary journal or a publication in which the research articles or papers are selected for publication by a panel of expert referees in the field.
- p) 'Registrar' and 'Registrar (Evaluation)' mean respectively the Registrar and Registrar (Evaluation) of the University.
- q) 'Research Centre' means a College/Institute/Department/Research Laboratory and the like recognized by the University for the candidates to pursue Ph.D./M.Sc.(Engg) by Research in an approved discipline.
- r) 'Research Supervisor' means a qualified faculty member or a scientist recognized by the University to supervise/guide the candidates for Ph.D./M.Sc.(Engg.) by Research.
- s) 'UGC' means the University Grants Commission established at New Delhi by an Act of Parliament in 1956.
- t) 'University' means the Visvesvaraya Technological University (VTU) with its Head-quarters at Belagavi, Karnataka.
- u) 'Vice Chancellor' means the Vice Chancellor (VC) of the University.
- v) 'Viva-Voce Board' means a committee of experts appointed by the University to conduct the final viva-voce on the Thesis submitted by the candidate.
- w) 'VTU-ETR' means VTU Eligibility Test for Research conducted by the University for admitting students to Ph.D. programme.
- x) 'VTU-RC' means Research Center recognized / identified by the University.
- y) 'Website' means the website of the University at www.vtu.ac.in;

Ph.D.-3**BOARDS AND COMMITTEES****Ph.D.-3.1****Constitution of Boards/Committees**

The University shall constitute the following Boards/ Committees for monitoring the Ph.D. Programme:

- a) Admissions Committee
- b) Doctoral Committee
- c) Viva - Voce Board
- d) Such other Boards/Committees, as may be required.

The composition, duties and responsibilities of the Boards and Committees shall be as given below:

Ph.D.-3.1.1**Admissions Committee**

- a) The Admissions Committee to be constituted by the Vice Chancellor for each Faculty, shall consist of:

1. Dean of the Faculty,	-Chairperson
2. Nominee of the Executive Council	-Member
3. Nominee of the Academic Senate	-Member
4. Nominee of the Vice Chancellor	-Member
5. Registrar	-Member Convener

- b) If there is no Dean appointed for a Faculty, the Vice Chancellor may nominate one among the other Deans to be the Chairperson of the Admissions Committee for that Faculty.
- c) The Admissions Committee shall be responsible for :
 - (i) Identification and notification of intake
 - (ii) Getting the eligibility test conducted
 - (iii) Getting the merit list(s) prepared
 - (iv) Interview for candidates organized
 - (v) The Reservation Policy followed
 - (vi) Pre-registration interview facilitated
 - (vii) Conducting such other tasks connected with the admission of the candidates for the Ph.D. programme.
- d) The tenure of the Committee shall be three years and the constitution of the Committee shall be aligned with the academic year at the University. The Committee shall meet as often as required.

Ph.D.-3.1.2 Doctoral Committee

- a) The Head of the Institute shall propose a Doctoral Committee to be constituted by Vice-Chancellor for each candidate with the following composition:
 - 1. Head of the Institute -Chairperson
(or his/her Nominee)
 - 2. Head of the Research Centre/Department -Member
 - 3. Two domain experts, (at least one expert -Members
external to the Research Center in the
same domain) both identified jointly by
the Head of the Research Center &
Research Supervisor
 - 4. Research Supervisor -Member Convener
 - 5. Co-Supervisor (if any) -Joint Member Convener
- b) The Doctoral Committee shall be responsible to review and monitor the progress of the candidate in Ph.D. research work from its commencement until submission of the Thesis. The Committee shall meet as often as required, but at least once in every six months before forwarding the Six-Monthly Progress Report of the candidate to the University.
- c) If the Head of the Institute/Research Centre is also the Research Supervisor of the candidate concerned, the VC shall appoint an alternate Chairperson/Member from the same institute for this Committee.
- d) Also, the Committee shall have the same composition for all the candidates registered under one Research Supervisor.
- e) The VC shall appoint alternate domain expert(s) on the Committee in consultation with the Head of the Institute, if any of the appointees is unable to attend the deliberations of the Committee for more than two half-year periods at a time.
- f) All the expenses related to the functioning of the Doctoral Committee shall be met by the institute concerned.

Ph.D.-3.1.3 Viva-Voce Board

- a) The viva-voce Board shall be constituted by the Vice Chancellor for each candidate soon after receipt of favourable Reports from all the adjudicators. It shall have the following composition:
 1. Research Supervisor -Chairperson
 2. Co- Supervisor (s), if any -Co-Chairperson
 3. Identified Adjudicator -Member
- b) The board shall conduct the final viva-voce for the candidate to defend his/her Ph.D. thesis.
- c) The board shall submit its detailed report in the prescribed format to the University.

Ph.D.-3.1.4 Other Boards and Committees

- a) The Vice Chancellor may constitute other Boards/Committees in connection with other specific requirements in the conduct of the Ph.D. programme.
- b) The duties/responsibilities and other details of these Boards/Committees shall be notified by the University as and when they are constituted.

Ph.D.-4 SUBJECT/TITLE OF RESEARCH AND NATURE OF RESEARCH PROGRAMME**Ph.D.-4.1 List of Faculties**

The University shall permit the registration for Ph.D. in the following Faculties, namely,

- a) Faculty of Engineering
- b) Faculty of Architecture
- c) Faculty of Science
- d) Faculty of Management Studies

Ph.D.-4.2 Inter-Disciplinary Subject Areas

- a) It shall also be possible for a candidate to pursue Ph.D. research in a subject area of inter-disciplinary nature in the same Faculty in which the candidate has obtained the PG degree or across two or more Faculties in the University.
- b) The admission of such candidates shall be subject to Ph.D. – 5.2.5

Ph.D.-5 ELIGIBILITY FOR ADMISSION**Ph.D.-5.1 Eligibility Requirements**

The eligibility requirements for candidates to get admitted to the Ph.D. programme shall include the following:

Ph.D.-5.1.1 Categories of Candidates and Other Requirements

There shall be provision for the following categories of candidates for admission to Ph.D:

- a) **Full-Time:** Candidates to pursue Ph.D. research on full time basis shall also include QIP/FIP scholars and those belonging to Integrated Degree programmes such as M.Sc.(Engg.) by Research/(Full-Time)M.Tech. /M.Arch. + Ph.D.
- b) **Part-Time:** In-service candidates having a minimum professional experience of one year after their PG Degree from among the regular faculty members working in any Engineering College /Polytechnic / University / Deemed to be University (recognized / accredited by appropriate bodies in India) or research staff of public / private organizations shall be eligible to pursue Ph.D. research on a part time basis.
- c) **Full-Time (Special):**NRI/FN/PIO candidates shall be eligible for admission to Full

Time Ph.D. research as indicated in 5.1.1 a). However, the candidates shall have passed the UG / PG programmes with medium of instruction in English or qualified in TOEFL/ELTS, or equivalent and be able to communicate in English and also submit the thesis in English language only.

- d) **Integrated Degree:** Students registered for M.Sc.(Engg.) by Research(Full- Time)/ M.Tech./M.Arch, may be allowed to upgrade to Ph.D. as per 5.2.1 a) as applicable on a case by case basis.
- e) **Distance mode:** Candidates with MBA and MCA Degrees obtained through distance mode from UGC/DEC approved institutions may be allowed to register for Ph.D. as per UGC/AICTE norms on condition of two years teaching/research experience after completion of their PG Degree award.

Ph.D.-5.1.2 Study leave/Employment/Clearances

- a) Employed candidates, who take up Ph.D. Programme on full time basis, shall produce NOC from their employer/organization(s) with a sanctioned study leave for a minimum period of three years with full salary.
- b) Unemployed Candidates who take up Ph.D. programme on full time basis shall not be allowed to take up any employment during such period of Ph.D. work. However, they can apply for scholarship / fellowship / stipend/ assistantship, if any, with intimation to the University.
- c) Foreign students shall hold valid passport/visa, clearance from MHRD and other documents as mandated by the GoI throughout their studentship at the University.

Ph.D.-5.2 Minimum Qualifications to be Satisfied

The minimum academic qualifications required for seeking admission to the Ph.D. Programme, shall be as given below in respect of the different Faculties:

Ph.D.-5.2.1 Faculty of Engineering

- a) The candidates shall possess a Master's Degree in Engineering / Technology or equivalent or M.Sc.(Engg.) by Research degree from the University or any other University recognized by it, with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks at either the Bachelor's or the Master's Degree.
- b) The candidates possessing Bachelor's Degree in Engineering / Technology or equivalent recognized by the University with outstanding merit, having either a minimum CGPA of 7.75 out of 10 or 70% aggregate marks and published research papers in refereed journals or filed/ obtained patents shall also be eligible for admission, subject to approval by the Admissions Committee.
- c) The candidates pursuing M.Sc.(Engg.) by Research Degree at the University who have successfully completed the prescribed coursework in the first two semesters of study with outstanding merit of either a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and published research papers in refereed journals or filed/obtained patents shall be eligible for up-gradation to the Ph.D. Integrated degree programme, subject to approval by the Admissions Committee.
- d) The candidates pursuing M. Tech. Degree at the University who have successfully completed the prescribed coursework in the first three semesters of study with outstanding merit of either a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and published research papers in refereed journals or filed/obtained patents shall

be eligible for up-gradation to the Ph.D. Integrated Degree Programme, subject to approval by the Admissions Committee.

Ph.D.-5.2.2 Faculty of Architecture

- a) The candidates shall possess Master's Degree in Architecture / allied specialization or equivalent recognized by the University, with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks at either the Bachelor's or the Master's Degree in the respective discipline.
- b) The candidates possessing Bachelor's Degree in Architecture or equivalent recognized by the University with outstanding merit, having either a minimum CGPA of 7.75 out of 10 or 70% aggregate marks and published research papers in refereed journals or filed/ obtained patents shall also be eligible for admission to the Ph.D. Integrated degree programme, subject to approval by the Admissions Committee.
- c) The candidates possessing Bachelor's Degree in Architecture or equivalent recognized by the University, with 10 years of experience in teaching/research/ professional practice in Architecture shall also be eligible for admission, subject to approval by the Admissions Committee.
- d) The candidates pursuing M. Arch. Degree at the University who have successfully completed the prescribed coursework in the first three semesters of study with outstanding merit having either a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and demonstrated good research aptitude shall be eligible for up-gradation to the Ph.D. Integrated Degree Programme, subject to approval by the Admissions Committee.

Ph.D.-5.2.3 Faculty of Science

The candidates shall possess M.Sc. / M.Phil. Degree in Physics/ Chemistry/ Mathematics/ MCA, and such other allied disciplines, recognized by the University with a minimum CGPA of 6.75 out of 10 or 60 % aggregate marks at either the Bachelor's or the Master's Degree.

Ph.D. 5.2.4 Faculty of Management Studies

The candidates shall possess MBA/equivalent Degree from a recognized University with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks at the Master's degree.

Ph.D.-5.2.5 Inter-Disciplinary Subject Areas

The candidates desirous of pursuing Ph.D. in subject areas of interdisciplinary nature (as per Ph.D.-4.2) shall fulfill the following eligibility requirements:

- a) The candidate shall possess the Master's Degree in appropriate branch/subject/discipline recognized by the University, with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks.
- b) The candidate shall submit the title of the research area and the research proposal along with his/her application for admission.
- c) The research areas /proposal shall receive commendation /positive recommendation of the Admission Committee, who may, under approval of the Vice Chancellor, constitute expert Committee to evaluate the same.
- d) In such cases, the Degree shall be awarded in the subject/ discipline in which the candidate has registered for the Ph.D. programme.
- e) Further, if required, Co-Supervisor(s) from appropriate discipline(s) may be assigned

Ph.D.-5.2.6 Other

- a) Foreign candidates for Full-Time – Special Ph.D. programme shall have obtained their UG and/or PG Degrees in the appropriate branch (as specified under Regulations Ph.D. 5.2.1-5.2.5) from a University recognized/accredited by approved bodies in India.
- b) They shall have adequate proficiency in English as demonstrated by qualifying in the relevant National/International tests.

Ph.D.-5.3 Relaxation of Minimum Requirements

A candidate belonging to SC/ST/Category-I/ differently-abled or any other reserved category as notified by GoK from time to time shall have relaxation of 5% or equivalent grade in the minimum prescribed qualification level for the general category.

Ph.D.-5.4 Admission for Research Supervisor

A Research Supervisor cannot be a Research Scholar under this University.

Ph.D.-6 RECOGNITION / FUNCTIONING OF RESEARCH SUPERVISOR**Ph.D.6.1 Procedure for Recognition**

- a) The University shall invite applications periodically on its website or by notification, from eligible faculty members, scientists and others for being recognized as Research Supervisors under all its Faculties. The prospective Research Supervisors shall apply in the prescribed format, with all the necessary supporting documents to the University in response to such a notification.
- b) An Expert committee under each Faculty, constituted by the Vice-Chancellor shall scrutinize the applications received and recommend the names of selected persons to be recognized as Research Supervisors to the AS and EC for their approval. On getting approved, each Research Supervisor shall receive a communication from the University clearly indicating relevant provisions in these Regulations and the UGC norms to be adhered to, along with an Identity Card specifying his/her Research Supervisor Registration Identity (RSRI). The list of Research Supervisors along with their research areas shall be updated periodically, notified to all the Research Centres and widely publicized on the University website.
- c) Upon Recognition, a Research Supervisor shall become eligible to supervise/guide the Ph.D. candidates of the University as prescribed under Ph.D.-7.1. The validity period of RSRI shall be up to the end of the academic year in which the Research Supervisor attains the age of 62 years. However, the recognition shall stand withdrawn if any Research Supervisor fails to supervise at least one Ph.D. candidate in a continuous period of five years. In such a case, fresh registration shall be sought if required by the faculty member/scientist by going through the procedure outlined under a) and b) above.

Ph.D.-6.2. Eligibility for Recognition as Research Supervisor

- a) A Faculty member working in a recognized academic institution and/or a Scientist/Engineer working in a recognized research establishment/ industry shall be eligible for recognition, provided he/she has:
 - (i) Ph.D. degree from a recognized University in the relevant discipline(s).
 - (ii) A minimum of two research papers in refereed journals during the preceding five years.

- (iii) Independent research experience of at least one academic year, after obtaining the provisional Ph.D. degree award
- b) A person awarded Ph.D. degree from Foreign University shall submit an equivalence certificate obtained from UGC/AIU and VTU to be recognized as Research Supervisor under VTU.

Ph.D.-6.3 Functioning of Research Supervisor

- a) There shall be a possibility of allowing a Co-Supervisor in addition to Research Supervisor for a candidate registered for the Ph.D. Degree at a Research Centre.
- b) In the case of interdisciplinary subject area(s), a candidate may have two supervisors, of which one shall be designated as the Research Supervisor and the other as the Co-Supervisor, with either of them being from the Research Centre where the candidate has registered for Ph.D.
- c) A Research Supervisor shall not opt to become Co-Supervisor for more than *five* candidates at any time.
- d) No Research Supervisor/Co-Supervisor shall supervise his/her close relative or spouse for Ph.D. Degree of VTU.

Ph.D.-7 INTAKE

Ph.D.-7.1 Number of Candidates per Research Supervisor

The following norms / procedure shall be strictly adhered to while assigning Research Supervisors to the candidates admitted at a Research Centre. Any violation of these norms/ procedure shall result in the University taking serious steps like de-recognition of the Research Centre or the Research Supervisor.

- a) Each Research Supervisor/Co-Supervisor shall supervise/guide at a time, not more than:
- Eight candidates if he/she is Professor;
 - Six candidates if he/she is Associate Professor; and
 - Four candidates if he/she is Assistant Professor.

Category of Supervisor/ Co-Supervisor	Maximum no. of candidates	SC/ST/ Cat-I candidates	Differently-abled or any other reserved category candidates	Foreign candidates	General Merit candidates
Professor Level	08	01	01	02	04
Associate Professor level	06	01	01	01	03
Assistant Professor level	04	01	01	nil	02
If a guide does not enroll a foreign candidate, the vacant seat may be shifted to General Merit					

This shall include the candidates registered under the same Research Supervisor/Co-

- Supervisor at other Universities, if any, with the prior written approval of the VC.
- b) Of the number of candidates permitted to be registered under a Research Supervisor as above, there shall be seats reserved for SC/ST/Category-1/Differently-abled candidates in each case as per the Reservation Policy of GoK.
 - c) The seats reserved for SC/ST/Category-1/ Differently abled candidates shall be mutually interchangeable as per UGC norms, but not transferrable to the General Pool.
 - d) The candidates registered for Ph.D. under a Research Supervisor/Co-Supervisor who have completed the final Viva-Voce shall not be considered while counting the number of candidates assigned to a Research Supervisor/ Co-Supervisor.
 - e) A Research Supervisor shall not be assigned more than 25% of the permitted allocation (as per Ph.D.-7.1 a)) of the newly admitted candidates during an academic year.
 - f) The Admissions Committee shall have the power to allocate up to a maximum of 50% of the permitted allocation of the newly admitted candidates to a Research Supervisor during an academic year under very special circumstances, subject to approval by the VC.
 - g) A Research Supervisor shall not be assigned any new candidates for Ph.D. at a Research Centre if he/she has less than three years of service left before the prescribed age of retirement from the Centre concerned as on the opening day of the academic year.
 - h) Reservation Policy
The University shall follow the Reservation Policy of GoI and GoK as applicable from time to time, for the total number of candidates admitted to the Ph.D. programme in an academic year.

Ph.D.-7.2 Change of Research Centre

- a) The candidates shall have the possibility to shift from one Research Centre to another within the University due to reasons like, lack of research facilities, non-availability of Research Supervisor(s) and need for special facilities in the case of women candidates.
- b) In all such cases, the decision of the Admissions Committee shall be final and binding.

Ph.D.-8 NOTIFICATION

Ph.D.-8.1 University Notification

The University may call for Applications for Admissions normally once in an academic year covering :

- (i) The procedure to be followed for Ph.D. admissions;
- (ii) Eligibility requirements, i.e., Ph.D.-5 to be satisfied for getting admitted;
- (iii) Number of seats to be filled branch/ subject area-wise at each VTU-RC;
- (iv) Division of seats to be filled in the general and the reserved categories;
- (v) VTU-ETR details-Dates, Centres, Syllabi etc., and How to apply;
- (vi) Calendar for pre-registration interview, semesters, other events;
- (vii) Information on available scholarships, assistantships, if any.

The admissions shall be made twice annually at the beginning of each semester based on the candidate's rank in the VTU-ETR and the pre-registration interview performance, both being conducted only once in a year.

Ph.D.-9 SUBMISSION OF APPLICATIONS AND THEIR PROCESSING

Applications from the eligible candidates shall be submitted as follows:

All eligible candidates satisfying the requirements as in Ph.D. – 5 shall submit their applications for VTU-ETR and Ph.D. admission to the University in the prescribed format along with necessary documents; viz., attested copies of degree certificate(s), marks cards of all the related examinations, employer's certificate if employed, and such other documents as may be prescribed.

Ph.D.-9.2 Functions/Responsibilities of the Admissions Committee

The Admissions Committee shall arrange for:

- (i) Scrutinizing of the applications to determine their eligibility, including those eligible for exemption from the VTU-ETR;
- (ii) Conducting the VTU-ETR and getting the answer scripts evaluated;
- (iii) Preparation of the merit- list(s) of candidates based on the VTU-ETR score in percentile format;
- (iv) Deciding on the number of candidates from the merit list(s) to be called for pre-registration interview for VTU-RC;
- (v) Conducting pre-registration interview for such short listed candidates.

Ph.D.-10 VTU-ETR

Ph.D.- 10.1 Conduct of VTU-ETR

- a) All the eligible applicants shall appear for the VTU-ETR which shall be arranged to determine the candidate's aptitude for research. The percentile score obtained by the candidates in the VTU-ETR shall form the basis for preparing the merit list of successful candidates which shall be valid for *two* academic years only.
- b) Separate merit lists so organized for the General and Reserved category candidates shall be notified by the Admissions Committee at the University Office, VTU Regional Centre Offices and on its website.
- c) Only those candidates having percentile score in the VTU-ETR of ≥ 50 in the case of General category and ≥ 45 in the case of Reserved category shall be in the list(s) of short listed candidates for being called for the pre-registration interview during the year.
- d) Eligible candidates shall be free to re-appear at the VTU-ETR again in a later year, if required to improve their percentile score to get into the merit list(s).

Ph.D.-10.2 Exemption from VTU-ETR

The following categories of candidates may be exempted from appearing at VTU-ETR with the approval of Admissions Committee:

- (i) Full-time (Special) candidates.
- (ii) Faculty members selected under QIP / FIP.
- (iii) Candidates qualified in the UGC-NET(including JRF)/UGC-CSIR NET (including JRF) / SLET / GATE/ CAT or other similar national tests and having qualifying percentile scores in their respective validity periods;
- (iv) Candidates with M.Phil. Degree or equivalent as recognized by the University.

Ph.D.-10.3 Eligibility for Pre-Registration Interview

- a) Candidates successful in VTU-ETR as per Ph.D.-10.1 and those from the categories

listed in Ph.D.-10.2(iii-iv) shall be included in the lists of qualified candidates to appear for the pre-registration interview. However, candidates under Ph.D.-10.2(i-ii) shall be considered for admission on a case by case basis by following AICTE/UGC directions.

- b) The number of candidates to be called for pre-registration interview at a Research Centre shall be determined from the lists in a) above by the Admissions Committee based on the intake capacity in the year.

Ph.D.-11 PRE-REGISTRATION INTERVIEW

Ph.D.-11.1 Expert Committees

- a) The Admissions Committee shall arrange the conduct of pre-registration interview of those candidates called for this purpose as per Ph.D.-10.3 b). The object of pre-registration interview shall be to assess the suitability of a candidate to take up the proposed research work.
- b) For this purpose, the VC shall constitute Expert Committees for each subject area in which the candidates are being considered for admission, based on the Admissions Committee recommendation.

Ph.D.-11.2 Conducting Interview

- a) The Expert Committee meetings for pre-registration interview shall be held on date/time and at venue(s) as decided by the Admissions Committee and notified to the Expert Committee(s) and the candidates concerned.
- b) The scope of interview shall be to judge the candidate's knowledge and experience in the subject area concerned and his/her preparations to take up the proposed research work.
- c) Only those candidates successful in the pre-registration interview shall be considered for provisional admission as students for Ph.D.

Ph.D.-11.3 Interview Performance

- a) If the performance of a candidate is not satisfactory at pre-registration interview, the Admissions Committee may provide one more chance subsequently to the candidate to appear at the Pre-Registration interview provided he/she meets the validity requirements for eligibility as per Ph.D.-10.1 and Ph.D.-10.2.
- b) The Admissions Committee may suggest to such candidates as in a) above improvements if any, in the Title/Synopsis presented by each of them at the interview, with a view to assist them in the future.
- c) The candidate(s) failing in the interview even in the second attempt shall not be eligible for being considered further for Ph.D. admission. Such candidate(s) shall have to appear for VTU-ETR afresh to become eligible again, if required.

Ph.D.-12 PREPARATION OF MERIT LIST OF SUCCESSFUL CANDIDATES FOR PROVISIONAL REGISTRATION

Ph.D.-12.1 Merit Lists after Pre-Registration Interview

- a) Separate merit lists for all the General and Reserved Category candidates shall be prepared by the Admissions Committee for the candidates from the lists in Ph.D.-10.3 based on their performance in the pre-registration interview and also in the qualifying examination in the ratio of 70:30.

- b) Candidates who have cleared the national tests and those with M.Phil. Degree as per Ph.D.-10.2(iii-iv) shall be placed in separate lists in order of their merit in the pre – registration interview and the qualifying examination.

Ph.D.-12.2 Preparation of Consolidated Merit List

- a) The Admissions Committee shall prepare a consolidated merit list of candidates qualifying for Ph.D. admission immediately after the pre-registration interview as per Ph.D.-12.1 and notify the same at the University/Regional Centres and on the web site.
- b) Only the candidates in the consolidated merit list shall be considered for filling the existing vacancies at the respective Research Centres in both the semesters (I and II) of the year.

Ph.D.-12.3 Admissions Procedure

- a) The Admissions Committee shall submit the consolidated merit list to the University for facilitating the provisional registration of candidates as per their rank in the list.
- b) The University shall communicate the merit list of selected candidates to each Research Centre along with the semester (I or II) in the year preferred by the candidate to get admitted.
- c) All candidates unsuccessful in completing the process of admission for any reason may approach the Admissions Committee for reconsideration, if required.
- d) Upon successful interaction with the proposed Research Supervisor(s), each candidate shall submit his/her Research Proposal/Outline in the prescribed format to the University through the Research Centre concerned for the purpose of provisional registration to the Ph.D. Programme. This shall be mandatory for all the candidates.
- e) The Research Proposal/Outline shall consist of the state-of-the-art, objectives, methodology, work plan and relevance of the proposed research area. The candidate shall also indicate therein, the related branch of Engineering/Technology, Architecture, Science, Management Studies, Inter-disciplinary areas and/or allied fields.
- f) A candidate desirous of upgrading his/her M.Sc. (Engg.) by Research registration to the M.Sc.(Engg.) by Research + Ph. D Integrated Degree programme, shall submit his/her research proposal to the University before the end of the *third* Semester in the programme, which shall be the basis to determine his/her research capabilities by the Admissions Committee.
- g) A candidate desirous of upgrading his/her M.E./ M. Tech. / M. Arch. registration to M.E./M. Tech./M.Arch. + Ph. D Integrated Degree programme, shall submit his/her research proposal to the University before the end of the *third* Semester, which shall be the basis to determine his/her research aptitude by the Admissions Committee.
- h) Each candidate shall have to seek admission only in such branch of major discipline for which the department concerned is recognized as Research Centre by the University.
- i) The provisional registration of the candidate shall commence from the beginning of I or II semester as preferred in the application for admission to the Ph.D. programme.
- j) At this stage, each candidate shall also submit to the University a panel of *four* domain experts proposed by the Research Supervisor(s) assigned through the Research Centre for constituting the Doctoral Committee.
- k) Prescribed fees shall be paid by each candidate to the University for completing the provisional Ph.D. registration.

Ph.D.-12.4 The Ph.D. Programme

- a) Upon receiving the research proposal / outline and the panel of domain experts proposed along with the prescribed fees for the candidate, the Vice Chancellor shall constitute the Doctoral Committee as per Ph.D. 3.1.2.
- b) After provisional registration, the Ph.D. programme of the candidate shall consist of three parts to be cleared in sequence, namely,
 - Part-I : Coursework
 - Part-II : Comprehensive Vice-Voce
 - Part-III : Pre-Submission Colloquium, Synopsis and Thesis Submissions.
 These shall be followed by Thesis evaluation and its defense by the candidate at the end.
- c) The Coursework for all candidates listed under Ph.D.- 5.2 shall be as prescribed under Ph.D.- 14.
- d) Each candidate shall be free to apply for a change in the Research topic /Coursework for the consideration of the Doctoral Committee before the completion of Part-I. But, the candidate shall not be permitted to change the Research topic after the completion of Part-II of the programme.
- e) All the Ph.D. registrations shall be provisional initially and they shall be confirmed only on the successful completion of both Part-I and Part-II.

Ph.D.-12.5 Role of Doctoral Committee

- a) The Doctoral Committee shall scrutinize and approve the Coursework (Part-I), conduct Comprehensive Viva-Voce (Part-II), and review/monitor periodically (at least once in six months) the research progress of each candidate concerned until submission of his/her Ph.D. Thesis.
- b) The Progress report of the candidate shall be forwarded by the Doctoral Committee to the University regularly only after conducting his/her six-monthly review.

Ph.D.-13 CHANGE OF RESEARCH SUPERVISOR**Ph.D.-13.1 Procedure to be Followed**

- a) The request by a candidate for change of Research Supervisor and/or Co-Supervisor shall be permitted by the University only under exceptional circumstances, as determined by the Research Centre and the Doctoral Committee.
- b) In other cases like transfer, retirement or resignation of the Research Supervisor/Co-Supervisor before the candidate's submission of the thesis, the Dean shall normally permit the candidate to continue to work under the same Research Supervisor/Co-Supervisor or in exceptional cases, permit an alternative arrangement with the consent of the Doctoral Committee

Ph.D.-13.2 Handling of Conflict

In the case of any conflict between the Research Supervisor and/or Co-Supervisor and the candidate, the Research Centre shall on receipt of request letter from either of the parties or both refer the matter to the Vice Chancellor. The decision of the Vice Chancellor shall be final in this regard.

Ph.D.-14 PART-I :COURSEWORK

Ph.D.-14.1 Proposing Coursework

- a) Each candidate provisionally registered for the Ph.D. programme shall have to go through the prescribed coursework choosing four subjects for Faculty of Engineering and Faculty of Architecture and 6 subjects for Faculty of Science and Faculty of Management Studies out of which one subject namely Research Methodology is compulsory. The remaining three courses shall be pertaining to their Research work as decided by the Doctoral Committee and obtain a minimum of 60 % in each course registered.
- b) The coursework shall include Research Methodology covering areas such as quantitative methods, computer applications, research ethics, reviewing of published research in the relevant field, field work, statistical methods, intellectual property rights and related topics.
- c) The remaining credit requirements in each case shall be met from advanced level courses in the relevant areas as approved by the BoS concerned and the AS and as notified by the University. Courses from these lists shall be prescribed by the Research Supervisor and Co-Supervisor (if any) in consultation of the Research Centre and approved by the Doctoral Committee concerned.
- d) Courses prescribed for the Coursework shall be selected from different groups in such a way that there shall be a minimum of one course, but not more than two courses from the same group, if grouped by the Faculty/ BoS concerned.
- e) The University shall have the freedom to revise and notify the approved courses in the list(s) from time to time
- f) In all the cases, the prescribed coursework may be completed satisfactorily within the first two semesters of provisional registration of the candidate(s). However, in no case the time period for completing the coursework shall exceed four semesters.
- g) The University may arrange the approved course on Research Methodology at one or more of its campuses as often as required and the provisionally registered candidates shall avail of this facility.
- h) Candidates undergoing Coursework shall submit their applications in the prescribed format together with the relevant fees to the University for course-end Examination as and when notified by the University.
- i) Candidates already having M.Sc.(Engg.) by Research degree or those who have completed their coursework for these degrees and got admitted to the Integrated Ph.D. programme shall be exempted from the above coursework.
Provided they have undergone a course on Research Methodology as prescribed by the University.

Ph.D.-14.2 Setting up of Question Papers

- a) Question papers shall be set by the identified examiners appointed for this purpose by the University from the panel recommended by the Admissions Committee.
- b) Each question paper shall be set for maximum marks of 100 and it shall have similar format as prescribed for Master's degrees of VTU.
- c) The question paper setters and answer paper valuers shall have Ph.D. Degree in the relevant field.

Ph.D.-14.3 Evaluation of Answer Scripts

Answer scripts of all the candidates shall be valued independently by two valuers.

Ph.D.-14.4 Averaging of Marks Awarded

If the difference between the marks awarded by the two valuers is $\leq 14\%$, the marks awarded to the candidate shall be the average of the two valuations.

Ph.D.-14.5 Appointment of Third Examiner

If the difference between the marks awarded by the two examiners is $\geq 15\%$, a third examiner shall be appointed to evaluate the answer script(s) concerned. The average of the marks of the nearest two valuations shall be considered as the marks secured by the candidate. However, if one of the three evaluations is exactly midway between the other two, then the higher two marks shall be taken for averaging and the resulting average shall be awarded to the candidate.

Ph.D.-14.6 Prescribed Passing Standards

- a) For passing the Coursework (Part-I), the candidate shall obtain a minimum of 60% marks in each course registered.
- b) Candidates shall be required to pass in each course in a maximum of two attempts i.e. within one year in two semesters.
- c) The University shall have the provision to issue Marks Card(s) to the candidates for the completion of the coursework.

Ph.D.-14.7 Norms for Maintaining Provisional Registration

The following norms/standards shall be applicable to all the candidates for maintaining their provisional registration:

- a) The coursework shall be completed and cleared by each candidate with a minimum of 60% marks in each course within two consecutive coursework examinations conducted by the University from the date of provisional registration.
- b) The provisional registration of candidates failing to fulfill the above requirements shall be automatically cancelled. Such candidates shall seek provisional registration for Ph.D. afresh, if required.

Ph.D.-15 PRESCRIBED RESIDENCE PERIOD

Ph.D.-15.1 Mandatory Residence Period for Part-Time Candidates

- a) A Part-Time Research candidate shall put in a minimum of *fifteen* days of residence in every semester at his/ her Research Centre before every review of the Doctoral Committee till the submission of the final Synopsis. This residence requirement shall be utilized by the candidate for the purpose of coursework preparation as well as formulation/investigation of the research problem.
- b) Each Part-Time candidate shall submit to the University through his/her Research Centre a Certificate issued by the Research Supervisor/Co-Supervisor for completing the above residence requirement.

Ph.D.-16 PROGRESS REPORTS / PERIODIC REVIEW BY THE DOCTORAL COMMITTEE

Ph.D.-16.1 Procedure for Review

- a) The Doctoral Committee shall periodically review the research progress of the

candidate, at least once in six months until the submission of the Thesis.

- b) Each candidate shall submit a research progress report in the standard format to the Doctoral Committee, *two* weeks prior to the schedule of the meeting. The half-yearly progress report shall cover the aspects such as, new data collected / obtained, techniques developed, progress in research, discussion of the work done during the review period, new findings and work plan for the future. Research papers prepared/published, if any, shall also be submitted.
- c) The candidate shall make oral presentation of the research progress before the Doctoral Committee. And, the Doctoral Committee shall communicate the satisfactory research progress or otherwise of the candidate to the Research Centre for onward transmission to the University.

Ph.D.-16.2 Cancellation of Registration

- a) The Doctoral Committee shall be free to recommend the cancellation of Ph.D. registration of the candidate if,
 - (i) Two consecutive research progress reports not adjudged to be satisfactory, and/or
 - (ii) Two consecutive research progress reports not submitted;
- b) Before recommending cancellation of registration, the Doctoral Committee shall issue a show-cause notice to the candidate, seeking his/her explanation.
- c) If the explanation is not agreed by the Doctoral Committee, the candidate shall be free to appeal to the Vice-Chancellor with valid reasons, seeking intervention. The decision of the Vice-Chancellor in this regard shall be final.

Ph.D.-16.3 The Integrated Degree Programme

The above procedure shall also be applicable for candidates registered for the Integrated Ph.D. programme.

Ph.D.-17 PART-II: COMPREHENSIVE VIVA- VOCE

Ph.D.-17.1 Requirements to be satisfied for Comprehensive Viva-Voce

- a) In the case of full-time candidates, the comprehensive Viva-Voce shall be conducted within three semesters from the date of provisional registration. And this can be held within four semesters from the date of provisional registration in the case of part time candidates.
- b) Each candidate shall be required to submit a written request to the University through his/her Research Centre for the conduct of his/her comprehensive Viva-Voce, within six months of the successful completion of Coursework (Part-I).
- c) In the case of health / employment related problems of a candidate unable to take the comprehensive Viva-Voce as above, the University shall be free to allow a further period of six months for this purpose, on receipt of a written request from the candidate with the recommendations of his/her Research Supervisor(s) and the Doctoral Committee forwarded through the Research Centre.
- d) However for whatever reason(s), if the comprehensive Viva-Voce is not completed within three years from the date of provisional registration, the admission of the candidate shall stand automatically cancelled.

Ph.D.-17.2 Scheduling Comprehensive Viva-Voce

The Research Centre, in consultation with the Doctoral Committee and the University, shall schedule the date/time for the comprehensive Viva-Voce preferably within four weeks upon

receipt of the written request from the candidate for this.

Ph.D.-17.3 Conduct of Viva-Voce

- a) The Doctoral Committee shall conduct the comprehensive Viva-Voce in English language only.
- b) The comprehensive Viva-Voce shall be a closed-door oral examination consisting of the Doctoral Committee members (as examiners), and the candidate. The Doctoral Committee shall be free to invite additional examiner(s) if need be for assisting it in the Viva-Voce, chosen from amongst a panel of two experts recommended by the Research Supervisor.

Ph.D.-17.4 Content and Form of Viva-Voce

- a) The Comprehensive Viva-Voce shall consist of a presentation by the candidate on his/her topic of research, including the work done till date and the proposed future work.
- b) The Doctoral Committee (and the additional examiner(s), if present) shall test the candidate for fundamental concepts in the coursework and applied knowledge to carry out the proposed research work.

Ph.D.-17.5 Performance Standards at Viva-Voce

The Doctoral Committee shall communicate the result of the Comprehensive Viva-Voce to the University through the Research Centre as:

- a) The Committee is satisfied at the successful completion of Viva-Voce and the candidate shall continue the research work. OR
- b) The Committee indicates the deficiencies in specific areas in which the candidate needs strengthening of knowledge and suggesting a date preferably within the next three months for re-examination.
- c) If the Doctoral Committee does not recommend the continuation of research work by the candidate even after the second attempt, the provisional registration of the candidate shall stand cancelled automatically.

Ph.D.-18 CONFIRMATION OF Ph.D. REGISTRATION

Ph.D.-18.1 After the successful completion of coursework (Part-I) and the Comprehensive Viva-Voce (Part-II), the Doctoral Committee shall recommend to the University for issuance of notification to the candidate on Confirmation of Registration.

Ph.D.-18.2 Issue of Notification

- a) The University shall issue a notification within fifteen days from the date of receipt of the communication from the Doctoral Committee.
- b) The Notification shall specify the date from which the candidate's registration for the Ph.D. programme is confirmed.

Ph.D.- 19 OPEN SEMINARS

Ph.D.-19.1 Mandatory Pre-Ph.D. Seminars to be given

- a) Prior to the submission of the Synopsis (required under Part-III), each candidate shall give two pre-Ph.D. presentations, commonly known as, open seminars at the Research Centre.

- b) These Seminars shall be open to all the faculty members and research scholars and arranged with the object of getting feedback and comments/suggestions from them, for being suitably incorporated into the Ph.D. Thesis, under the advice of the Research Supervisor/Co-Supervisor.

Ph.D.-19.2 Pre-Submission Colloquium

- a) The candidate shall also present a pre-submission colloquium before the Doctoral Committee, demonstrating his/her preparedness to submit the Synopsis to the University.
- b) The Candidate shall be free to submit the Synopsis to the University at this stage, together with the recommendations of the Doctoral Committee on the Open Seminars and the Pre-Submission Colloquium of the candidate, if both of them are satisfactory.
- c) However, if the performance of the candidate in the Pre-Submission Colloquium is not satisfactory, the Doctoral Committee may point out the deficiencies, if any and ask the candidate to repeat the Colloquium once more within three months. And, only on satisfactory performance at this stage, the Doctoral Committee shall be free to permit the candidate to submit the Ph.D. thesis.

Ph.D.-19.3 Permission for Submission of Thesis

Considering the research work of the candidate, his/her performance in the pre-submission colloquium and other technical aspects, the Doctoral Committee shall be free to permit the candidate to submit the Thesis.

Ph.D.-19.4 Anti-Plagiarism Check and Submission of the Thesis

- a) The candidate's thesis shall undergo plagiarism check as per the norms of VTU.
- b) The plagiarism shall be checked by software approved by VTU and the percentage of plagiarism (similarity Index) shall be as permitted by VTU owing to software limitation to identify the self-written research papers and definitions and common theory.
- c) The candidate may be given two more chances by the University to re-submit the thesis for plagiarism checking, if the plagiarism level is found unacceptable.
- d) Suitable fees shall be charged to the candidate by the University for Plagiarism checks conducted.

Ph.D.-20 PUBLICATION REQUIREMENTS

Ph.D.-20.1 Mandatory Publications requirement

Each candidate shall publish a minimum of two research papers in Refereed Journals based on his/her research work for the Ph.D. degree, before submission of the Synopsis for adjudication, and produce evidence for the same in the form of reprint or acceptance letter from the Publisher(s) of the Journal.

Ph.D.-21 VALIDITY PERIOD OF REGISTRATION

Ph.D.-21.1 Maintenance of Registration

During the period when the registration of the candidate is in force, the candidate shall pay the prescribed tuition and other fees to the University/Research Centre at the notified time intervals

Ph.D.-21.2 Minimum Period for Submission of Thesis by Full-Time Candidates

Full-Time candidates for the Ph.D. Degree including those upgraded to the M.Sc.(Engg.) by Research /M.Tech./M. Arch. + Ph.D. Integrated programmes, shall be normally eligible for submission of the thesis after a minimum period of three years from the date of provisional registration, subject to fulfillment of all the prescribed requirements.

Ph.D.-21.3 Minimum Period for Submission of Thesis by Part-Time Candidates

Part -Time candidates for the Ph.D. Degree shall be normally eligible for submission of the thesis after a minimum period of four years from the date of provisional registration, subject to fulfillment of all the prescribed requirements.

Ph.D.-21.4 Maximum Period for Submission of Thesis by Full-Time Candidates

- a) The maximum period for submission of the Ph.D. Thesis by Full-Time candidates including those upgraded to the M.Sc. (Engg.) by Research/M. Tech./M. Arch. + Ph.D. Integrated programmes, shall be six years from the date of provisional registration.
- b) But, the Vice Chancellor shall have the powers to extend the maximum period for submission of the Ph.D. thesis by such a candidate on the specific recommendations of the Doctoral Committee forwarded through the Research Centre on receipt of a request for extension from the candidate not less than three months prior to the completion of the stipulated period.
- c) The decision of the Vice Chancellor in this regard shall be final.
- d) In the case of failure of the candidate to submit the thesis even after the extended period, the registration shall be cancelled, after issuing a show-cause notice to the candidate.
- e) The University shall give special consideration to women and persons with disability (>40% disability) and give further relaxation of up to two years if the candidates request for the same.
- f) In addition, women candidates shall avail of Maternity Leave/Child Care Leave of up to 240 days once during their Ph.D. programme.

Ph.D.-21.5 Maximum Period for Submission of Thesis by Part-Time Students

- a) The maximum period for submission of the thesis for Part-Time candidates shall be six years from the date of provisional registration.
- b) But, the Vice Chancellor shall have the powers to extend the maximum period for submission of the Thesis by such a candidate on the specific recommendations of the Doctoral Committee forwarded through the Research Centre on receipt of a request for extension from the candidate not less than six months prior to the completion of the stipulated period.
- c) The decision of the Vice Chancellor in this regard shall be final.
- d) In the case of failure of the candidate to submit the thesis even after the extended period, the registration shall be cancelled, after issuing a show-cause notice to the candidate.
- e) The University shall give special consideration to women and persons with disability (>40% disability) and give further relaxation of up to two years if the candidates request for the same.
- f) In addition, women candidates shall avail of Maternity Leave/Child Care Leave of up to 240 days once during their Ph.D. programme.

Ph.D.-22**PART III: SUBMISSION OF SYNOPSIS AND THESIS****Ph.D.-22.1****Eligibility**

- a) Upon qualifying successfully in the Coursework (Part-I) and the Comprehensive Viva-Voce (Part-II) and satisfactory research progress followed by publication(s) in Refereed Journal(s) and Pre-Submission Colloquium, the candidate shall be ready to submit the Research work to the Doctoral Committee.
- b) The Doctoral Committee after considering the progress made by the candidate may recommend the candidate to take steps to submit to the University the Synopsis first followed by the Thesis within the validity period.

Ph.D.-22.2**Submission of Synopsis**

- a) At least three months prior to the submission of the thesis, the candidate shall submit a Synopsis of the thesis in English language. The Synopsis shall be in the standard format prescribed by the University.
- b) It shall be submitted to the University through the Research Centre concerned in two hard copies and one soft copy together with:
 - (i) Application for adjudication of the thesis.
 - (ii) Certificate from the Research Supervisor(s) stating the candidate's fulfillment of various requirements specified under Ph.D.-17 to Ph.D-21.
 - (iii) The certificate shall also state that there is *prima facie* case for thesis submission at this stage and that the thesis does not contain any work previously submitted for any award of the degree anywhere.
- c) It shall be ensured by the Research Supervisor(s) that "The thesis is based on the individual, original work of the candidate which is previously unpublished research work" by obtaining a suitable undertaking from the candidate.
- d) The Research Supervisor(s) shall also ensure that the thesis shall not contain any material infringing on the copyright of any individual/organization and does not hurt the sentiments of any individual or religion.
- e) It shall be ascertained by the Research Supervisor(s) that information such as text, tables, equations, diagrams, figures, charts, graphs, photographs taken from various sources has been cited appropriately by the candidate in the thesis.
- f) Further, the Supervisor(s) shall also certify that the opinions expressed or implied in the thesis shall be entirely of the candidate.
- g) There shall also be a Certificate from the Research Centre that there are no arrears/dues from the candidate up to the date of submission of the thesis.

Ph.D.-22.3**Submission of the Thesis**

- a) After getting the clearance from the University in this regard, the candidate shall submit two hard copies and one soft copy of the Ph.D thesis based on the research work conducted in the prescribed format to the Research Centre within three months from the date of submission of the Synopsis.
- b) The Research Centre shall forward *two* hard copies and *one* soft copy of the thesis to the University for taking further steps on it.
- c) In case the candidate is unable to submit the thesis within *three* months from the date of submission of the Synopsis, he/she shall be free to seek extension of time from the VC supported by the recommendations of the Research Supervisor(s) and the Doctoral

Committee forwarded through the Research Centre.

- d) The candidate shall also pay the prescribed thesis fees to the University and produce the 'No Dues Certificate' from the Research Centre while submitting the thesis.

Ph.D.-23 ADJUDICATION OF Ph.D. THESIS

Ph.D.-23.1 Panel of Adjudicators

The period of three months between the submissions of Synopsis and the Thesis by the candidate shall be used by the University for deciding the panel of adjudicators.

Ph.D.-23.2 Selection of Adjudicators

- a) The Research Centre shall arrange to forward to the University the proposed panel containing details of *twelve* experts for adjudication of the thesis as approved by the Doctoral Committee, of whom *few* experts shall be from abroad. This list shall be forwarded to the University along with the Synopsis.
- b) The complete postal address, e-mail ID, Telephone and fax numbers and the broad area of specialization of each adjudicator shall also be provided in the panel submitted.
- c) The Vice Chancellor shall choose *two* adjudicators from the suggested panel for adjudication of the thesis, with at least *one* being from outside the country/ Institutes of National Importance such as, IIT's, IISc, NIT's and REC's or National Laboratories and National Research Organisations and send invitation letters to them along with a copy of the Synopsis in each case.
- d) Their acceptance shall be preferably obtained within *one month* from the date of invitation, before taking any further steps on the subject.

Ph.D.-23.3 Appointment of Adjudicators to Evaluate the Thesis

- a) The University shall arrange for the thesis to be evaluated by the Research Supervisor (and jointly by the Co-Supervisor, if any) and two more Adjudicators identified as per Ph.D- 23.2 c) and d).
- b) The three adjudicators as in a) above shall be appointed by the Vice Chancellor to adjudicate the thesis submitted by the candidate.

Ph.D.-23.4 Dispatch of Copies of Theses to Adjudicators

- a) The University shall send a copy of the thesis to each adjudicator for evaluation, with a request to evaluate the thesis and send the evaluation report(s) preferably within a period of three months.
- b) If the Report is not received from the Adjudicator(s) within this period, a reminder once in a month to that effect shall be sent to the Adjudicator(s) concerned.
- c) If any adjudicator does not send the report even after three reminders or does not reply to the communications from the University, the Vice Chancellor shall identify and appoint another adjudicator either from the panel or outside the panel under special circumstances.

Ph.D.-23.5 Receipt of Thesis Reports at the University

- a) All the adjudicators shall evaluate the thesis and send their reports (at least 250 words in length) independently to the Registrar (Evaluation). However, it shall be possible to submit a Joint Report in the case of Research Supervisor and Co-Supervisor adjudicating a thesis.

- b) The Reports shall include:
 - i. A critical analysis of the work of the candidate as embodied in the thesis and an evaluation of the work in terms of its contribution to the advancement of knowledge.
 - ii. List of questions to be asked or points to be clarified if any, by the candidate at the final viva -voce.
 - iii. A definite recommendation as to whether the thesis attains the standard for the award of Ph.D. degree or not.
- c) The Adjudicators shall make any one of the following recommendations that the:
 - (i) Thesis is accepted in the present form and recommended for the award of Ph.D. degree. OR
 - (ii) Thesis needs minor clarifications indicated in the report which need to be clarified by the candidate at final Viva-Voce and it is recommended for the award of Ph.D. degree. OR
 - (iii) Thesis needs minor corrections to be made by the candidate as indicated in the report, which need to be incorporated in the thesis and clarified at the final Viva-Voce and it is recommended for the award of Ph.D. degree. OR
 - (iv) Thesis needs major corrections as indicated in the report and the revised thesis to be referred back to the adjudicator concerned for fresh evaluation. OR
 - (v) Thesis is rejected for the reasons specified in the report and *not* recommended for award of Ph.D. Degree.

Ph.D.-23.6 Consideration of Thesis Reports

On receiving favourable recommendations from all the adjudicators, including the Research Supervisor(s), the Registrar (Evaluation) shall convey the same to the Research Supervisor(s) along with copies of the Reports received and request to conduct the final Viva-Voce of the candidate.

Ph.D.-23.7 Scheduling of Final Viva-Voce

- a) The composition of the Viva-Voce Board shall be as specified under Ph.D.-3.1.3.
- b) In case, the identified adjudicator informs in writing his / her inability to be present at the Viva-Voce, the Research Supervisor (s) shall intimate the same to the Registrar (Evaluation), who shall get another examiner from the panel of examiners appointed after approval by the Vice Chancellor.
- c) The date/time of the Viva-Voce shall be fixed by the Research Supervisor(s) in consultation with the other member(s) of the Board, the Research Centre and the University.
- d) The candidate shall provide clarification(s) to all the queries of the adjudicators satisfactorily at the time of Viva-Voce.

Ph.D.-23.8 Rejection of Thesis, based on Negative Reports

- a) If both the external adjudicators (other than the Supervisor(s)) do not recommend the candidate for the award of the Ph.D. degree, the thesis shall be rejected.
- b) It shall be open for the candidate to seek registration for this degree at the University, afresh, if required.

Ph.D.-23.9 Appointment of Additional Adjudicator, if necessary

- a) The Thesis shall not be accepted for award of the degree if any one of the Adjudicators (other than the Research Supervisor(s)) finds that the research work is not up to the expected standard, as given in his/her report along with detailed reasons for the same.
- b) In such a case, the Report shall be considered by the Doctoral Committee concerned to decide on the need to appoint an additional adjudicator.
- c) A fourth Adjudicator shall be appointed by the University from the panel, based on this decision, who shall be invited for this purpose, by following Ph.D. 23.2.
- d) If the fourth Adjudicator, after evaluating the thesis gives a favorable Report, the Registrar (Evaluation) shall initiate further steps as per Ph.D. 23.5.
- e) If the fourth Adjudicator also does not approve the thesis, then the thesis shall be rejected.
- f) However, it shall be open for the candidate to seek Ph.D. registration at the University, afresh, if required.

Ph.D.-24**CONDUCT OF FINAL VIVA-VOCE****Ph.D.-24.1****Procedure for Final Viva-Voce**

- a) The final Viva-Voce shall be conducted by the Viva-Voce Board at a venue approved by the University, which shall, normally be the Research Centre in which the research work was carried out or the Regional Centre of VTU or the institution where the Research Supervisor/Co-Supervisor is based.
- b) The composition of Viva-Voce Board shall be as per Ph.D.-3.1.3.
- c) The procedure for conducting the Viva-Voce shall be as follows:
 - i. The Research Supervisor(s) shall fix the date/time and venue for the Viva-Voce in consultation with the adjudicator identified by the VC, the VTU-RC concerned and the University and inform the same to the candidate and the Registrar (Evaluation) in advance.
 - ii. The Research Supervisor(s) shall invite the head of the institution, members of the teaching staff and other research scholars to attend the Viva-Voce. The candidate shall make a brief presentation of the research work carried out highlighting the important findings/conclusions. After the completion of the presentation, the Research Supervisor(s) shall give opportunity to the invitees to seek clarifications, if any, from the candidate.
 - iii. After this, the Board only shall examine the candidate to test his/her understanding of the subject matter of the thesis and seek answers to the written queries by the adjudicators in the Thesis Evaluation Reports, if any. The candidate shall be required to produce all the documents, data and analysis in support of the research work presented in the Thesis.
 - iv. On completing the Viva-Voce, the Board shall submit a report to the Registrar (Evaluation) indicating clearly whether the performance of the candidate was satisfactory and if so, giving specific recommendation for the award of the Ph.D. degree to the candidate.
 - v. In case, the performance of the candidate is not satisfactory, the Board shall report accordingly, giving reasons for the same and recommending another Viva-Voce to be conducted after three months. The University shall arrange another Viva-Voce as required, with the composition of the Board unchanged.

Ph.D.-24.2**Consolidated Report**

- a) After successful completion of the Viva-Voce, the Viva-Voce Board shall prepare and forward the Consolidated Report along with duly corrected versions of both the hard and the soft copies of the thesis through the Research Centre to the University.
- b) Then the University with the approval of its authorities shall award the Ph.D. degree to the Candidate.

Ph.D.-24.3 Handling of Plagiarism Issues

- a) The Vice Chancellor shall have the powers to constitute Expert Committees to investigate into plagiarism issues connected with any Ph.D thesis submitted to the University, in the case of receipt of complaints either from the adjudicator(s), other individuals or any other sources.
- b) In the event of a thesis being proved to be copied, plagiarized or misrepresented academically, the University shall have the powers to rescind the degree. Such a candidate shall not be eligible to register for any degree programme at the University in the future.

Ph.D.-25 AWARD OF Ph.D. DEGREE

Ph.D.-25.1 Degree Certificates

- a) Upon the approval by the EC, the University shall issue a Provisional Ph.D degree certificate to the candidate certifying that the degree has been awarded in accordance with the “VTU Regulations Governing the Degree of Doctor of Philosophy (Ph.D.) – 2017”.
- b) The University shall award the Ph.D degree certificate to the candidate during the forthcoming Convocation.
- c) In the case of candidates for the Integrated Ph.D. Degrees, there shall be a specific mention in the Certificate that the Degree conferred is an M.Sc.(Engg.) by Research +Ph.D./M. Tech.+ Ph.D./ M. Arch.+ Ph.D. Integrated Degree as the case may be.
- d) The University shall hold the *Copy Right* of all the Theses after conferring the Ph.Ddegree.

Ph.D.-26 DEPOSITORY WITH UGC AND THE UNIVERSITY

Ph.D.-26.1 Submission to UGC

- a) Following the successful completion of the evaluation process and announcement of the award of the Ph.D degree, the University shall submit a final (corrected) soft copy of the Ph.D. thesis to the UGC within a period of thirty days for hosting the same on its Information and Library Network (abbreviated as INFLIBNET), accessible to all the Institutions / Universities.
- b) The University shall also maintain a repository of such Ph.D theses in its Library.

Ph.D.-27 PROHIBITIONS

Ph.D.-27.1 Prohibition of Statutory Officers from Ph. D. Registration

The Statutory Officers of the University shall not be permitted to register for the Ph.D degree of the University during the period of their tenure at the University.

Ph.D.- 27.2 Prohibition of Candidates from Registering for any other Degree

No Ph.D. candidate of the University shall be permitted to pursue any other degree programme within the University or at other Universities / Institutions, concurrently with his/her on-going registration as a candidate for the Ph.D. degree.

Ph.D.-28

REPEAL AND SAVINGS

- a) Notwithstanding anything contained in these Regulations, the provisions of any guidelines, orders, rules or regulations in force at the University shall be inapplicable to the extent of their inconsistency with these Regulations.
- b) The University shall issue such orders/instructions, and prescribe such format/procedure, as it may deem fit to implement the provisions of these Regulations.

Ph.D.-29

INTERPRETATION

- a) Any question as to the interpretation of these Regulations shall be decided by the University, whose decision shall be final.
- b) The University shall have the powers to issue clarifications to remove any doubt, difficulty or anomaly which may arise during the implementation of the provisions of these Regulations.