REGULATIONS GOVERNING THE DEGREE OF DOCTOR OF PHILOSOPHY [Ph.D.] 2023



GUJARAT TECHNOLOGICAL UNIVERSITY

Nr. Visat Three Road, Visat-Gandhinagar Road, Chandkheda, Ahmedabad — 382424, Gujarat, India.

Phone: 079-23267583

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Website: www.gtu.ac.in/PhD.aspx



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ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક :૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

VICE-CHANCELLOR!

Prof. (Dr.) Pankaj Ray Patel

REGISTRAR:

Dr. K. N. Kher

CONTROLLER OF EXAMINATIONS (i/c):

Dr. Viral Borisagar

This brochure-cum-prospectus is published for those who intend to apply for admission to Doctor of Philosophy (Ph.D.), at GTU

The contents are subject to change from time to time and the University may make such changes without notice. Individuals and institutions may write to us for seeking any additional information at phd@gtu.edu.in



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IMPORTANT DATES

START DATE OF ONLINE

REGISTRATION PROCESS:

Third Week of July

END DATE OF ONLINE

REGISTRATION PROCESS:

First Week of August

DATE OF ENTRANCE

Third Sunday of August (Tentative)

DATE OF ENTRANCE

RESULT

Third Week of September

DATE OF INTERVIEW

(FIRST ROUND)

Second Week of October

DATE OF INTERVIEW

(SECOND ROUND)

Third Week of November

ONLINE APPLICATION FEE:

GENERAL: INR 1500/-

SC/ST/SEBC/EWS: INR 1250/-

Interested candidates can submit their online application through ONLINE APPLICATION FORM LINK available on the website for each Admission process.

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Gujarat Technological University is a premier academic and research institution which has driven new ways of thinking since its founding in 2007 and was established by the Government of Gujarat vide Gujarat Act No. 20 of 2007. Today, GTU is an intellectual destination that draws inspired scholars to its campus, keeping GTU at the nexus of ideas that challenge and change the world. GTU is a State University with 435 affiliated colleges in its fold operating across the state of Gujarat. The University has more than 3 lakh students enrolled in a large number of Diploma, Under Graduate, Post Graduate programs along with the robust Doctoral program.

Our education empowers individuals to challenge conventional thinking in pursuit of original ideas. With a commitment to free and open inquiry, our scholars work transform the way we understand the world, advancing – and creating – fields of study.

GTU's Vision, Mission statements and the Objectives it stands to fulfil are:

VISION:

To be a global university for the creation and dissemination of knowledge and innovation in Science & Technology, Humanities and Multidisciplinary domains for sustainable development and enrichment of human life.

MISSION:

- 1. To develop centres of academic excellence at university premises and at affiliated colleges in domains of science, engineering, technology, management, and environment for imparting comprehensive education, training, and research infrastructure as per the nation's requirements.
- 2. To build resources, facilities, proficiencies and other related infrastructure of global standard for the development of knowledge, skills, and competencies in the various educational domains.
- 3. To develop research-oriented pedagogy for flourishing ideas and to nurture innovators, entrepreneurs and professionals of tomorrow
- 4. To build and enhance collaborations with other academic, research, industry, and government organizations as well as NGOs across the globe so that education, training and research at university and its affiliated colleges become aligned with national and global level requirements
- 5. To encourage multidisciplinary research and develop flexible learning ecosystem

CORE VALUES (Objectives):

- 1. Excellence with value-based education
- 2. Responsiveness to society
- 3. Integrity and transparency
- 4. Mutual Respect
- 5. Sustainable development

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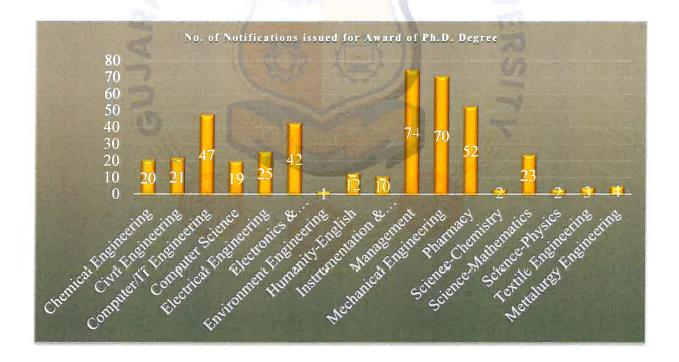
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Gujarat Technological University, is one of Gujarat's largest public university in terms of the number of the students enrolled in more than 400 affiliated colleges. The University offers a wide range of programmes ranging from diploma to doctoral studies in six different Faculties of study and also in multidisciplinary/interdisciplinary areas.

Presently GTU is situated in a temporary campus at Chandkheda, Ahmedabad. The University has been allocated 100 acre of land near Lekavada, Gandhinagar where the sprawling new permanent campus will be established in near future. GTU has been catering to a number of students and has initiated a number of innovative teaching, learning and certificate programmes over the years.

A dedicated section has been established by the University to look after the affairs of research scholars from registration, constitution of Doctoral Research Committees (DRC), monitoring research scholars' progress and quality of publication and problems faced by scholars, question paper setting, arrangement to conduct of Ph.D. course work examinations, evaluation etc.. This section also take care of expediting the process of thesis evaluation, conduct of Viva-Voce Examination and award of provisional degree.



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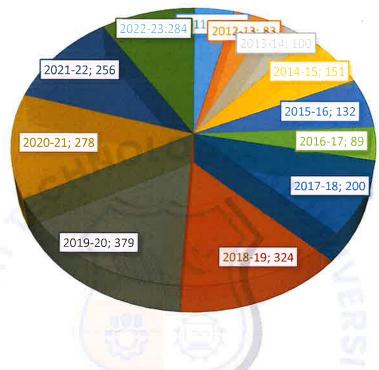
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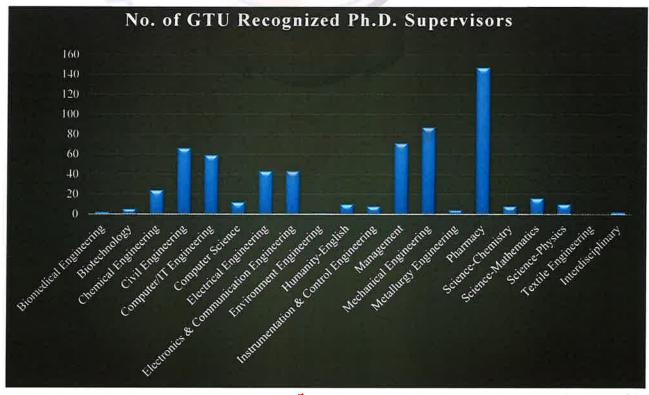
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ENROLLED RESEARCH SCHOLARS





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GTU through its International Co-Supervisor programme provides a platform for international cooperation where experts across the leading universities in the world co-supervise our research scholars. Annual Research Week is organised for all enrolled Research Scholars.

Dr. Rudra Prakash Maheshwari -Professor, IIT - Roorkee. (Electrical Engineering). Dr. Subramaniam Ganesan - Oakland University, Rochester. (Computer/IT Engineering).



GTU had initiated the Best Ph.D. thesis Award in order to recognize the research work done by the Ph.D. scholars in various disciplines. On the 15th Foundation Day of the University this award was given to Dr. Ashish Prasenjitkumar Shah (149997390003) who has worked under the supervision of Dr. Chhaganbhai N. Patel.

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Chapter I: Regulations for Doctor of Philosophy

I. Preamble

These regulations governing the Degree of Doctor of Philosophy (Ph.D.) have been framed with a view to fulfil the provisions of UGC (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulations, 2022 and University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations, 2018. They also take into account the experience of the University in conducting the Ph.D. programme 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 GTU Regulations Governing the degree of Doctor of Philosophy (Ph.D.) 2023.
- Ph.D. 1.2 These shall come to force from the date of their notification by the University and applicable for candidates seeking registration for Ph.D. programme in the Faculty of Engineering & Technology, Faculty of Pharmacy, Faculty of Architecture, Faculty of Management, Faculty of Computer Science, Faculty of Humanities, Faculty of Applied Sciences and in Multidisciplinary/Interdisciplinary Subject Areas initially.
- 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.	"BoG" means Board of Governors
b.	"Co-supervisor" means the additional Research Supervisor who has been recognized by the University to Co-Supervise the Ph.D. candidate/ Research Scholar
C.	"Coursework" means the courses prescribed as a part of the Ph.D. programme, which the candidate shall successfully complete as a prerequisite.
d.	"DPC" means "Doctoral Progress Committee"; a Committee constituted by the University for each Ph.D. candidate/ Research Scholar to monitor the progress of his/her research work
e.	"DRC" means Doctoral Research Committee
f.	"FN/PIO" means Foreign National/Person of Indian Origin in abbreviated form.
g.	"Programme" means Doctoral Programme leading to the award of Ph.D. Degree

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h.	"Research Centre" means a College/Institute and the like recognized by the
	University for the candidate/ Research Scholar to pursue Ph.D. programme
	in an approved discipline(s).
i.	"RPP" means research proposal presentation which is mandatory to be
	attended by all candidates seeking admission to the Ph.D. programme, as
	per schedule.
j.	"Research Scholar" means any candidate admitted by the University either
	under Full-Time or Part-Time category for pursuing research for the award
	of Ph.D. Degree after completion of Coursework.
k.	"Research Supervisor" means a faculty member of the University or Scientist
	working at a recognized research centre who has been recognized by the
	University to supervise the Ph.D. candidate/ Research Scholar
1.	"TMMS" means Ph.D. Thesis Management & Monitoring System Portal of
	University
m.	"UGC" means the University Grants Commission
n.	"UGC-CARE List" means UGC-CARE Reference List of Quality Journals
0.	"University" means Gujarat Technological University with its Head- quarters
	at Ahmedabad, Gujarat
p.	"Vice Chancellor" means the Vice Chancellor of the University
q.	"Viva-Voce Board" means a committee of experts appointed by the University
	to conduct the final Viva-Voce on the Thesis submitted
r.	"website" means the website of the University www.qtu.ac.in

Ph.D.-3 Committees:

- Ph.D.-3.1 The University shall constitute the following Committees for Ph.D. Programme:
 - a) Doctoral Research Committee (DRC)
 - b) Research Committee (REC)
 - c) Doctoral Progress Committee (DPC)
 - d) Viva-Voce Board
 - e) Such other Boards/Committees, as may be required
- **Ph.D.-3.1.1 Doctoral Research Committee (DRC)** for every sub-discipline under each faculty to recommend / to take decision(s) as per the policy framed and the mechanism evolved by the Research Council as enshrined in GTU Regulations 2017- 6.5.1.4.

Constitution of Doctoral Research Committee (DRC)

DRC for each sub-discipline shall consist of nine members or if the DRC is to be constituted for a group of sub-disciplines, maximum number of members may be increased to 13-15. Each DRC shall be constituted by the Vice Chancellor. Chairperson of each DRC shall be appointed by the Vice Chancellor from amongst the members of the DRC. While nominating / selecting members for the DRC, due care shall be exercised to provide adequate representation of each sub-discipline -

- (i) Five experts from the following categories-
 - (a) Directors of Schools / Centres established by the University,
 - (b) Deans of Faculty

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- (c) Principles of Affiliated Institutes
- (d) Professors / Associate Professors of the School / Centres established by the University
- (e) Professors/ Associate Professors of affiliated institutes

Note: The appointed person shall be an expert of sub-discipline as evident from his/her qualifications and /or experience. The persons appointed shall be recognized Ph.D. Supervisors. In addition at least two/ three candidates must have completed Ph.D. under the guidance of the each appointed person.

- (ii) Two experts at a level not below the rank of Professor from Academic Institutions other than Schools established by GTU and institutions affiliated with GTU. The appointed experts shall have specialization of the sub- discipline. In addition, the appointed experts must be approved Ph.D. supervisors/guides from a UGC recognized University in the discipline.
- (iii) Two eminent persons from the Industries/Research Organizations with significant contribution in Research and/or Development.
- (iv) For Interdisciplinary research, the Vice-Chancellor may appoint committee members on a case to case basis.
- (v) The Vice-Chancellor may invite, at his discretion, any expert(s) to the meeting of RC and/or DRC to advise or to recommend the University on matters relating to Research and Development in the University.
- (vi) The Vice-Chancellor or a senior member nominated by the Vice-Chancellor shall be the Chairperson of the Research Committee and Senior Dean shall be convener.
- (vii) (1) The term of office of the members nominated by the Vice- Chancellor under sub-clauses (ii) and (iii) of clause (3) of GTU Regulations 2017
 6.5.1.3 and sub-clauses (i) (ii) and (iii) of clause (3) and clause (4) above shall be three years.
 - (i) A member nominated in his/her capacity as an official shall cease to be a member of the Committee from the date on which he ceases to be an officer.
 - (ii) Any person nominated in a vacancy occurring before the expiry of the original term of three years shall, subject to other provisions, be a member of the committee only for the residuary period for which the person whose place he has filled would have been a member.

Meeting of Doctoral Research Committees

The DRC shall meet at least once in three months, or as often as it may be necessary as per **GTU Regulations 2017 6.5.2 (b).**

- (i) The Chairperson of respective sub-discipline shall preside over the meeting of the DRC. In his absence, the Senior Member appointed by the Chairperson shall preside.
- (ii) Two weeks' notice shall ordinarily be given for each meeting. In special circumstances, a meeting may be convened with shorter notice. Under orders of the Chairperson, the Senior Member appointed by the Vice Chancellor as a convener shall issue the notice informing the day, date, time and venue of the meeting.

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(iii)	The convener shall prepare the agenda with the approval of Chairperson
	and also send the agenda to each member at least one week in advance
	of the meeting date. However, with shorter notice or no notice at all,
	the Chairperson may bring before the meeting any item considered by
	him as urgent, for discussion at any meeting of the Committee.

- (iv) Any item for inclusion of the agenda suggested by a member may be included with the approval of the Chairperson.
- (v) The minutes of the meeting shall be prepared by the convener with the approval of Chairperson within one week after the meeting and submit them to the Vice-Chancellor. The minutes as approved shall be communicated to all the members of the Committee.
- (vi) The Convener shall, as early as possible, but not later than fifteen days from the date of approval of the minutes, initiate further action on resolutions passed at the meeting of the Committee.
- (vii) The minutes shall be in the custody of the Chairperson and he/she shall preserve them till such time as the Board of Governors directs.

As per GTU Regulations 2017- 6.5.3.(q) Doctoral Research Committee (DRC) for every sub-discipline under each faculty shall recommend/take decision(s) as per the policy framed and the mechanism evolved by the Research Council (RC) in respect of the following matters -

- (r) Admit and register candidates leading to research degree with the approval of the Vice Chancellor
- (s) Obtain and maintain a database pertaining to admissions, registrations, reservation category, research supervision, research topic, payment of fees, etc;
- Obtain and maintain database on pre-PhD examination, field work/lab work, publications, pre-submission seminars, submission, etc. related to the research students/scholars;
- (u) Grant leave to Research Scholars, cancel Ph.D. registrations, recommend
 (i) modification of titles for Ph.D.
 - (ii) allow change of Supervisors and Doctoral Progress Committee Members
 - (iii) early submission of Thesis / dissertation and
 - (iv) extension of time for submission of thesis / dissertation, all in accordance with University rules;
- (v) Recognize research supervisors/co-supervisor on the recommendations of the Research Committee constituted for the purpose, as per University rules,
- (w) Allocation of Supervisor/s to eligible candidates in order of merit;
- (x) Appointment and Allocation of Co-Supervisor;
- (y) Appointment and Allocation of Doctoral Progress Committee for each enrolled Research Scholar;
- (z) Recommend examiners /subject experts for entrance examination, research proposal presentation, course work etc.,
- (z(a)) The DRC shall appoint one DPC member out of three experts recommended by the respective Research Supervisor for each candidate/Research Scholar.

(z(b)) The DRC shall appoint another expert from outside GTU for which a database Winners of: "Most Promising University of India 2020" Trank Among All Universities in Gujarat 2020 by Uni Rank" "1" Rank in Gujarat State Institutional Ratings Framework (GSIRF) 2019" "National Leadership Excellence Award 2019 in Technical Education" "India's Most Trusted State University 2019" "University 2019" University in West India 2019"

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of experts [discipline-wise] from outside GTU has to be created by a committee appointed for the purpose by the Hon'ble Vice Chancellor.

(z(c)) The DRC will allocate four research scholars to a DPC member who is an Assistant Professor, six research scholars to a DPC member who is an Associate Professor and eight research scholars to a DPC member who is a Professor.

Consider such other issues relating to research as may be referred to it by the Vice-Chancellor or any other Authority of the University.

Ph.D. 3.1.2 Research Committee (REC):

Research Committee (REC) shall be constituted by the Vice- Chancellor and shall comprise of the following members as per GTU Regulations 2017- 6.5.4.

(A) Constitution of Research Committees (REC)

REC shall comprise of the following members -

- (i) The Chairperson of respective discipline/sub discipline DRC
- (ii) Director of School / Centre established by the University
- (iii) Dean of Faculty
- (iv) The Vice-Chancellor may invite any expert(s) to the meeting of REC, at his discretion
- (v) The term of office of all the members nominated by the Vice- Chancellor above shall be three years.
- (vi) A member nominated in his/her capacity as an official shall cease to be a member of the Committee from the date on which he ceases to be an officer
- (vii) Any person nominated in a vacancy occurring before the expiry of the original term of three years shall, subject to other provisions, be a member of the committee only for the residuary period for which the person whose place he has filled would have been a member.

(B) Duties and Functions of REC

- (a) REC shall recommend to the DRC-
- (i) Eligible candidates for recognition as Research Supervisors along with maximum seats that can be allocated to them in accordance with the University's rules.
- (ii) Eligible candidates for recognition as Co-supervisors in accordance with the University's rules.
- (b) Consider such other issues as may be referred to it by the Vice- Chancellor or any other Authority of the University.

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Ph.D.-3.1.3 Doctoral Progress Committee (DPC):

There shall be a DPC for each candidate/ Research Scholar constituted by the Vice-Chancellor based on the recommendation of DRC/DRCs as per GTU Regulations 2017-6.5.5.

(A) Constitution of DPC

- (i) Research Supervisor shall be the Member Convener of this Committee(ii) Two domain experts, other than the Supervisor, will act as DPC Members
- Out of the two domain experts one will be appointed by the respective DRC/DRCs
- (iv) Co-Supervisor(s)(if any) shall be the Joint Member Convener
- (v) The term of office of all the members will be co-terminated with the deposition of Ph.D. thesis by the Research Scholar.
- (vi) Any person nominated in a vacancy occurring before the expiry of the original term, subject to other provisions, be a member of the committee only for the residuary period for which the person whose place he has filled would have been a member.

(B) Duties and Functions of DPC

- (i) DPC shall register themselves on TMMS Portal immediately after its notification on the University's website.
- (ii) DPC shall guide the candidate to develop the study design and methodology of research and design a Self-Study Course.
- (iii) DPC shall be responsible to review and examine the Research Scholar for the Self-Study Course [PHD2303] of the Coursework and submit its report/result/marks in hard copy in the prescribed University's format.
- (iv) DPC shall be responsible to review the research proposal and finalize the topic of research before submitting Final Registration form to the University.
- (v) DPC shall be responsible to review, assist and monitor the progress of the Ph.D. work of Research Scholar, either through e-medium or otherwise; till the submission of Ph.D. thesis by the Research Scholar.
- (vi) DPC shall submit all evaluation report/reviews in the prescribed format to the University

Consider such other issues relating to research as may be referred to it by the Vice-Chancellor or any other Authority of the University.

Ph.D.-3.1.4 (A) Viva-Voce Board

The Viva-Voce Board shall be constituted by the Vice Chancellor for each Research Scholar soon after receipts of favourable reports from adjudicators as per GTU Regulations 2017- 6.5.6.

Board of Examiners, constituted for adjudication of the thesis, shall constitute the Viva-Voce Board

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(B) Constitution of Viva-Voce Board

- (i) Research Supervisor shall be the Convener
- (ii) Co-Supervisor(s), if any, shall be Co-Convener
- (iii) Identified Adjudicator 1 shall be the Member
- (iv) Identified Adjudicator 2 shall be the Member

In case of unavailability of (iii)/(iv) above the Vice Chancellor shall appoint additional Adjudicators.

(C) Duties and Functions of Viva-Voce Board

- (i) The board shall conduct the final Viva-Voce of the Research Scholar to defend the Ph.D. thesis and shall primarily be designed to test the understanding of the Research Scholar on the subject matter of the thesis and the competence in the general field of study.
- (ii) The board shall ask the Research Scholar to make a brief presentation and the Viva-Voce will end when all the questions raised by the board and audience are answered.
- (iii) The board shall submit its report in the prescribed format to the University
- (iv) The board shall conduct the Viva-Voce in the mode, at a place and time decided by the University

Consider such other issues relating to research of the Research Scholar as may be referred to it by the Vice- Chancellor

Ph.D. - 3.1.5 Other Boards and Committees as per GTU Regulations 2017- 6.5.7.

- (i) The Vice Chancellor may constitute other Boards/Committees in connection with other specific requirements in connection with the Ph.D. programme.
- (ii) 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 NATURE OF Ph.D. PROGRAMME as per GTU Regulations 2017 – 6.5.8

Ph.D.- 4.1 List of Faculties offering Ph.D. programme

The University shall permit the registration for Ph.D. programme in the following Faculties-

- a) Faculty of Architecture
- b) Faculty of Applied Sciences
- c) Faculty of Computer Science
- d) Faculty of Engineering & Technology
- e) Faculty of Humanities
- f) Faculty of Management
- g) Faculty of Pharmacy

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Ph.D.-4.2 Multidisciplinary/Interdisciplinary Subject Areas

It will also be possible for a candidate to pursue Ph.D. programme in a subject area of multidisciplinary/ inter-disciplinary nature in the same faculty in which the candidate has obtained the Post Graduate degree and/or across two disciplines/faculty(ies) through a Committee appointed by the Vice-Chancellor on a case to case basis.

In case of interdisciplinary/multidisciplinary research work, if required, a Co-Supervisor from outside the Department/ School/ Centre/ College/ University may be appointed.

Ph.D.-5 ELIGIBILITY FOR ADMISSION

Ph.D.-5.1 Eligibility Requirement

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. programme:

Full-Time:

- (i) Candidates who have completed a 2 year/ 4 semester Post Graduate degree programme after a bachelor's degree programme will be eligible to pursue Ph.D. programme on a full time basis.
- (ii) Candidates pursuing Ph.D. programme at GTU PG Schools on a full time basis and will be entitled to avail various benefits as mentioned at Annexure II.
- (iii) Employed Candidates who have completed 2 year/4 semester Post Graduate degree programme after a bachelor's degree programme will be eligible to pursue Ph.D. programme on a full time basis working in any Degree College /Diploma College / University / Deemed to be University (recognized / accredited by appropriate bodies in India) / Units of Government or research staff of public / private organizations / industry or are sponsored by the respective employer will be eligible to pursue Ph.D. programme on a full time basis if they are fully relieved for the period of study.
- (iv) FN/PIO candidates shall possess a Degree considered equivalent to post graduate degree
 - (a) accredited by an assessment and accreditation agency which is approved, recognized authorized by an authority, established or incorporated under law in its home country

or

(b) any other statutory authority in that country to access, accredit or assure quality and standard of educational institution.

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or

(c) recognized by AIU

Part-Time:

(v) Candidates who have completed a 2 year/ 4 semester Post Graduate degree programme after a bachelor's degree programme will be eligible to pursue Ph.D. programme on a part time basis and are amongst faculty members working in any Degree College /Diploma College / University / Deemed to be University (recognized / accredited by appropriate bodies in India) / Units of Government or research staff of public / private organizations / industry shall be eligible to pursue Ph.D. programme on a part time basis.

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

- (i) Employed candidates, who take up Ph.D. Programme on full time basis, shall produce a "No Objection Certificate" from their respective employer/organization(s) stating that a leave for study for a minimum period of three years has been sanctioned as per rules of the employer/organization(s).
- (ii) Employed candidates who take up Ph.D. programme on a part time basis, shall produce a
 - a. No Objection Certificate issued by employer/ organization(s) that they shall be allowed to avail leave (relieved from duty) for attending the mandatory coursework and the candidate is permitted to pursue studies on a parttime basis.
 - b. the required laboratory or experimental facility is available at the place of work of the candidate OR shall produce a No Objection Certificate issued by the lab-in charge/an appropriate authority stating that the experiments related to research of the candidate shall be allowed to be conducted at the lab/research facility.
 - c. His/ her official duties permit him/her to devote sufficient time for research.
- (iii) 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 upon recommendation of Research Supervisor.
- (iv) FN/PIO candidates shall hold valid passport/visa, clearance from MHRD and other documents as mandated by the Government of India throughout their studentship at the University.

Ph.D.-5.2. Minimum Academic Qualifications to be satisfied

The minimum academic qualifications required for seeking admission to the Ph.D. Programme in respect of the different Faculties: -

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Ph.D.-5.2.1 Faculty of Engineering & Technology

(i) Candidates who have completed a 2 year/ 4 semester Post Graduate degree programme in Engineering and/or Technology after a bachelor's degree programme will be eligible to pursue Ph.D. programme in Engineering and/or Technology recognized by the University or any other recognized University/Institution with a minimum of 55% aggregate marks in Postgraduate degree.

Ph.D.-5.2.2. Faculty of Pharmacy

(i) Candidates who have completed a 2 year/ 4 semester Post Graduate degree programme after a four (4) year/ 8 semester bachelor's degree programme will be eligible to pursue Ph.D. programme in Pharmacy recognized by the University or any other recognized University/Institution with a minimum of 55 % aggregate marks in Postgraduate degree.

or

Candidates who have completed a 6 year Pharm D degree programme recognized by the University or any other recognized University/Institution with a minimum of 55 % aggregate marks.

Ph.D.-5.2.3. Faculty of Architecture

(i) Candidates who have completed a 2 year/ 4 semester Post Graduate degree programme after a bachelor's degree programme will be eligible to pursue Ph.D. programme in Architecture recognized by the University or any other recognized University/Institution with a minimum of 55 % aggregate marks in Postgraduate degree.

Ph.D.-5.2.4 Faculty of Management

(i) Candidates who have completed a 2 year/ 4 semester Post Graduate degree programme after a bachelor's degree programme will be eligible to pursue Ph.D. programme in Management or such other allied disciplines (MSW) recognized by the University or any other recognized University/Institution, with a minimum of 55 % aggregate marks in Postgraduate degree.

Of

(ii) Candidates who possess CA, CMA, and CS with a minimum of 55% aggregate marks and who are registered with Institute of Chartered Accountants of India or the Institute of Cost Accountants of India or the Institute of Company Secretaries of India.

or

(iii) Candidates possessing PGDM from AICTE approved institution with a Winners of: "Most Promising University of India 2020" ❖ "1st rank Among All Universities in Gujarat 2020 by Uni Rank" ❖ "1st Rank in Gujarat State Institutional Ratings Framework (GSIRF) 2019" ❖ "National Leadership Excellence Award 2019 in Technical Education" ❖ "India's Most Trusted State University 2019 " ❖ "Outstanding University in West India 2019"

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minimum of 55% marks in aggregate from an Institution whose Two-Year Full Time Postgraduate Diploma in Management (PGDM) is equivalent to MBA Degree for purpose of admission to Higher Studies.

or

(iv) M.Phil. in Management from any other recognized University/ Institution with a minimum of 55 % aggregate marks.

or

(v) 5 -year Integrated MBA

or

(vi) 2 year/ 4 semester Post Graduate degree programme in Management.

Ph.D. 5.2.5 Faculty of Computer Sciences

(i) Candidates who have completed a 2 year/ 4 semester Post Graduate degree programme after a bachelor's degree programme will be eligible to pursue Ph.D. programme in Computer Applications, recognized by the University or any other recognized University/Institution, with a minimum of 55 % aggregate marks in postgraduate degree.

Ph.D. 5.2.6 Faculty of Humanities

(i) Candidate who have completed a 2 year/ 4 semester Postgraduate degree programme after a bachelor's degree will be eligible to pursue Ph.D. programme in English, recognized by the University or any other recognized University/Institution with a minimum of 55 % aggregate marks in postgraduate degree.

or

M.Phil. in English from any other recognized University/ Institution with a minimum of 55 % aggregate marks.

Ph.D. 5.2.7 Faculty of Applied Sciences

(i) Candidate who have completed a 2 year/ 4 semester Post Graduate degree programme after a bachelor's degree programme will be eligible to pursue Ph.D. progarmme in Physics/ Chemistry/ Mathematics with a minimum of 55% aggregate marks in postgraduate degree in Physics/ Chemistry/ Mathematics

or

M.Phil. in Physics/ Chemistry/ Mathematics, from any other recognized

University/ Institution with a minimum CGPA of 55 % aggregate marks,

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(ii) Candidates who have completed a 2 year/ 4 semester Post Graduate degree in Biotechnology or Integrated M.Sc. (Biotechnology) after a bachelor's degree programme will be eligible to pursue Ph.D. programme in Biotechnology recognized by the University or any other recognized University/Institution with a minimum of 55% aggregate marks in postgraduate degree.

Ph.D. 5.3. Multidisciplinary/Interdisciplinary Subject Areas

It will also be possible for a candidate to pursue Ph.D. programme in a subject area of multidisciplinary/ inter-disciplinary nature in the same faculty in which the candidate has obtained the Post Graduate degree or across two disciplines/faculty(ies) through a Committee appointed by the Vice-Chancellor on a case to case basis.

In case of interdisciplinary/multidisciplinary research work, if required, a Co-Supervisor from outside the Department/ School/ Centre/ College/ University may be appointed.

Ph.D.-5.4 Others

- (i) The eligibility of candidate passing their qualifying examination from Universities following the letter grading system will be determined based on percentage equivalent to the letter grade obtained by the candidate according to the conversion formula adopted by the University concerned. In the absence of any such formula, the decision of the University shall be final and binding on the candidate.
- (ii) The eligibility of candidate passing their qualifying examination from a Foreign Educational Institution will be determined by producing document/ certificate that the degree/equivalent qualification obtained from a foreign educational institution is
 - (a) accredited by an assessment and accreditation agency which is approved, recognized authorized by an authority, established or incorporated under law in its home country

or

(h) any other statutory authority in that country to access, accredit or assure quality and standard of educational institution.

or

(c) recognized by AIU

Ph.D.-5.5 Relaxations

(i) Candidates who have appeared or are appearing in the final year / semester for qualifying Post Graduate degree examination and whose result is still awaited can also apply. However, such candidates should complete all formalities, viz., written the theory examination, completed practical

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examination, submitted project reports, completed Viva-Voce examination etc. before May 31 of the respective year. Such candidates will be admitted provisionally and shall be considered eligible for admission only after they have obtained Post Graduate degree or equivalent with a minimum of 55 % aggregate marks in Post Graduate Degree.

- (ii) A relaxation of 5% of marks, from (55% to 50%), or an equivalent relaxation of grade, is allowed for those candidates who have obtained their Post Graduate Degree or a professional degree declared equivalent to the Post Graduate Degree and belong to Schedule Caste (SC) / Schedule Tribe (ST) / Socially and Educationally Backward Classes (SEBC) non-creamy layer / Economically Weaker Sections (EWS) as notified by the Government of Gujarat.
- (iii) A relaxation of 5% of marks, from (55% to 50%), or an equivalent relaxation of grade, is allowed for those candidates who have obtained their Post Graduate Degree or a professional degree declared equivalent to the Post Graduate Degree and are Differentially abled (not less than 40% disability).

Ph.D.-5.6 Exemption from Entrance Test

Candidates who have qualified any of the following exams shall be exempted from the entrance test in respective disciplines: -

- (i) Candidates who have qualified in the NET / SLET or other similar tests conducted by such Government bodies as UGC, CSIR, ICAR / ICMR.
- (ii) Candidates qualified GATE / GPAT/CAT/CEED during last five years.
- (iii) Candidates who apply through Ministries of Government of India/State or candidates under Cultural Exchange Scholarship Programme of Government of India.
- (iv) Candidates who are granted fellowship/scholarship from state/central government agencies for pursuing Ph.D.
- (v) Teacher Fellowship holder.

Ph.D.-5.7 Reservation of Seats:

- (i) The University shall adopt the reservation policy of State Government and the guidelines of the University Grants Commission.
- (ii) The University reserves the right to verify the caste certificate used for claim of a seat in reserved category at any point of time or at any stage including after award of degree. If the certificate is found to be false/fake/incorrect, the admission or degree will be cancelled.
- (iii) The seats reserved for SC/ST candidates shall be mutually interchangeable as per UGC norms but not transferable to the general pool.
- (iv) The seats reserved for Differentially-abled candidates shall be mutually interchangeable.

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PhD.-6 ADMISSION NOTIFICATION

Ph.D.-6.1 Notification

- (i) The University may call for applications for Admissions to the Ph.D. programme normally once in an academic year notifying on the website and through advertisement in newspaper/website. The advertisement on the website will fulfill following criteria:
 - a) Eligibility requirements to be satisfied for getting admitted;
 - b) Number of seats to be filled in a branch/ discipline / subject area;
 - c) The procedure to be followed for Ph.D. admissions;
 - d) Entrance examination-dates, centre(s), Syllabi etc., and online application procedure;
 - e) Information on available scholarships, assistantships, if any.
- (ii) University's PhD. Entrance Examination will be held only once in a year.
- (iii) The result of University's Ph.D. Entrance test will be valid for a maximum of two admission cycles.
- (iv) Selected candidates will be provisionally registered for pursuing Ph.D. programme with the approval of the Vice-Chancellor every year.
- (v) Ph.D. Admissions are not offered /advertised in those branches/disciplines where NO seats supervisors are available.
- (v) No recheck/re-assessment will be allowed in University's PhD. Entrance Examination.

Ph.D. 7 SUBMISSION OF APPLICATIONS AND THEIR PROCESSING

Ph.D.- 7.1 Applications from the eligible candidates shall be submitted as follows:

- (i) All eligible candidates satisfying the requirements as mentioned in eligibility requirements shall submit their applications for Ph.D. admission in the prescribed online format and appear for entrance examination (unless exempted).
- (ii) At the time of provisional registration to the University the candidate shall submit the hard copy of the pre-registration form along with all necessary enclosures as specified in the form.

Ph.D.-7.2 Functions/Responsibilities of the DRCs for Admission

The DRC/DRCs shall act as admission committee for the particular discipline/ sub discipline and shall perform all duties as enshrined in GTU Regulations 2017 and shall be responsible for:

- (i) Scrutinizing the applications to determine candidate's eligibility, including those eligible for exemption from the entrance test;
- (ii) Conducting the entrance test based on the syllabus decided by the University

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- (iii) Getting the answer scripts evaluated;
- (iv) Deciding the number of candidates to be called for RPP, if required
- (v) Conducting RPP of eligible candidates
- (vi) Preparation of the discipline/ Faculty and category-wise consolidated merit-list of candidates
- (vii) Recommending examiners for designing Multiple Choice Entrance test question papers for respective discipline(s) including research methodology.
- (viii) Recommending examiners for RPP to the Vice Chancellor.
- (ix) No entrance test and/or RPP will be conducted for international research scholars. An interview will be conducted by DIR, GTU for each international candidate (FN/PIO) by a committee appointed by the Hon'ble Vice Chancellor on a case to case basis and admissions to such candidates will be done on supernumerary seats.

Ph.D.-7.3 Entrance Test Examination

- (i) Entrance Test Examination shall be a Multiple Choice Entrance Test comprising of two papers of one hour each.
- (ii) Paper I shall be research methodology comprising of 35 questions of 1 mark each [syllabus as per Annexure-III]
- (iii) Paper II shall be subject specific comprising of 35 questions of 1 mark each [latest syllabus as mentioned below]
 - a) All Engineering branches GATE syllabus [except quantitative/general aptitude and engineering mathematics]
 - b) Pharmacy GPAT syllabus
 - c) Pharmacy for Pharm D. Graduates [Annexure IV]
 - d) Management UGC NET Syllabus
 - e) Computer Science UGC NET Syllabus
 - f) Humanities English UGC NET Syllabus
 - g) Science Maths GATE Syllabus
 - h) Science Physics GATE Syllabus
 - i) Science Chemistry GATE Syllabus
 - j) Architecture GATE Syllabus
 - k) Biotechnology GATE Syllabus
- (iv) Qualifying marks in Multiple Choice Entrance test shall be 50% for General
- (v) Qualifying marks in Multiple Choice Entrance test shall be 45% for SC/ST/SEBC (Non-Creamy layers) / Differentially- abled category/ / EWS Category candidates
- (vi) The weightage of marks obtained in Multiple Choice Entrance test shall be 70% (seventy percent) for the purpose of creating a discipline/ Faculty and category-wise consolidated merit-list
- (vii) The list of qualified candidates shall be displayed on the website.
- (viii) The candidates stated at **Ph.D.-5.6** shall be exempted from appearing in the entrance test.

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Ph.D.-7.4 Research Proposal Presentation (RPP)

RPP shall be organized for all candidates who have qualified entrance test or are exempted from appearing in the entrance test.

- (i) Attending the RPP, as per the notified schedule, is mandatory.
- (ii) RPP will determine the candidate's aptitude for research before an Expert Committee.
- (iii) During the RPP, candidates shall also present in brief their proposed area of research
- (iv) RPP shall comprise of maximum marks 30 (thirty marks) having the following distribution-
 - 15 marks for candidate's competence for the proposed research.
 - 10 marks for research work can be suitably undertaken at the Institution/College
 - 5 marks for contribution of proposed research work for new/additional knowledge.

Ph.D.-7.5 Preparation of Consolidated Merit List

The DRC/DRCs shall prepare a consolidated merit list of all those candidates who have appeared for RPP in accordance with UGC, Regulations 2023 and shall be notified on the University's website-

SI. No.	Category of candidate	Marks obtained in entrance test (having 70% weightage) Component 1 of merit list	Marks obtained in RPP/ (having 30% weightage) Component 2 of merit list	Discipline / Faculty and category wise Consolidated merit list
1	Candidates who have passed the entrance test	Marks obtained in the University's entrance test.	Marks obtained in the RPP	Total marks obtained [Component 1 + Component 2]
2	Candidates who have been exempted from appearing in the entrance test	Marks will be awarded by the DRC/ DRCs. The criteria for calculating marks will be as per Annexure- I	Marks obtained in the RPP	Total marks obtained [Component 1 + Component 2]

- (i) Selection for admission to Ph.D. Programme will be subject to availability of vacant seats in order of merit.
- (ii) Candidates belonging to General category shall have to score 50% marks in the consolidated merit list for being eligible for Ph.D. admission.
- (iii) Candidates belonging to SC / ST / SEBC / EWS / Differently-Abled Categories shall have to score 45% marks in the consolidated merit list for being eligible for Ph.D. admission.

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- (iv) The following shall be applied for determining merit for those candidates who have obtained equal marks in the Discipline / Faculty and category wise Consolidated merit list to break the tie-
 - A candidate who has more marks in the Post Graduate degree examination shall rank higher in order of merit.
 - If still a tie persists then the candidate who has obtained more marks in the Bachelor degree level examination, shall rank higher in order of merit.
 - If both the above cases will not be resolved, candidate senior in age shall rank higher in the order of merit.
- (v) The Discipline / Faculty and category wise consolidated merit list shall be considered for filling the existing vacancies (depending on the availability of such seats) and shall be rendered null and void after the completion of the admission process for an academic year.

Ph.D.-8 ADMISSION PROCEDURE

- (i) The DRC/DRCs shall submit the Discipline / Faculty and category wise Consolidated merit list to the University for facilitating the provisional registration of candidates as per their rank in the list.
- (ii) University shall communicate the same merit list on the website.
- (iii) Upon successful interaction with the proposed Research Supervisor, each candidate shall submit the prescribed pre-registration form to the University through the Research Supervisor and/or Research Centre for the purpose of provisional registration to the Ph.D. Programme. This shall be compulsory for all the candidates.
- (iv) For those selected candidate who are unable to get a consent from any Research Supervisor; the concerned DRC / DRCs shall decide allocation of Research Supervisor depending upon the availability of such seats.
- (v) The DRC/DRCs shall have the authority to decide the allocation of Research Supervisor to the candidate, subject to availability of resources/ laboratories/ expertise etc., intake of candidates under a Research Supervisor, research interest of the Research Scholar. The DRC/DRCs may consider the choice indicated by the candidate in the pre-registration form, if found feasible.
- (vi) The DRC/DRCs shall finalize and register the provisional candidates along with the appointed Research Supervisor and the same shall be communicated on the University's website.
- (vii) The DRC/DRCs shall finalize and register provisional candidates in the same faculty in which candidate has appeared for RPP.
- (viii) Prescribed fees shall be paid by each candidate to the University for completing the provisional registration.
- (iX) At this stage each Research Supervisor shall recommend domain experts for the appointment as DPC members in the University's format within fifteen days of declaration of enrollment number.

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Ph.D.8 (A) Ph.D. COURSEWORK

- (i) Vice Chancellor shall appoint the DPC for each provisionally registered candidate based on the recommendation of the DRC/DRCs.
- (ii) After provisional registration, the candidate shall undergo following Coursework which shall be considered as first DPC.

SI. No.	Subject Name & Code	Credit	Attendance	Activities	Month	Examination to be conducted by	Component / Distribution of marks
1	Research Methodology [PHD2301]	5	75% attendance is mandatory to qualify for appearing in respective subject's examination	Classes (Online / Physical) will be conducted by the University	September - November or March – May	University in the month of January / June	70 marks (External Examination) Passing marks 39/70 30 marks (Assignment) Passing marks 17/30
2	Research and Publication Ethics [PHD2302]	2	75% attendance is mandatory to qualify for appearing in respective subject's examination	Classes (Online / Physical) will be conducted by the University	September - November or March – May	University in the month of January / June	35 marks (External Examination) Passing marks 19/35 15 marks (Assignment) Passing marks 8/15
3	Self-Study Course/ Contact Program [PHD2303]	5	75% attendance is mandatory to qualify for appearing in respective subject's examination and will be maintained by Research Supervisor	Assignments. and Presentation (Online / Physical)	November December or April – May	Research Supervisor & DPC members can mutually decide a date to conduct the Presentation and assignment in the month of January / June	70 marks (Presentation) Passing marks 39/70 30 marks for (Assignment) to be designed by Research Supervisor and evaluated by DPC Passing marks 17/30

- (iii) The DRCs shall recommend names of at least five subject experts for teaching courses on Research Methodology [PHD2301] & Research and Publication Ethics [PHD2302] to the Vice Chancellor.
- (iv) Vice Chancellor shall appoint at least four subject experts each for Research Methodology [PHD2301] & Research and Publication Ethics [PHD2302] subjects.
- (v) Depending on the availability of the subject expert the University will schedule the classes of Research Methodology [PHD2301] & Research and Publication Ethics [PHD2302] subjects.
- (vi) The prescribed Coursework should be completed within a span of maximum

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- (vii) Failing of the coursework examination in two attempts will automatically lead to cancellation of Ph.D. admission.
- (viii) University will arrange either online or physical class for coursework at one or more of its campuses / schools.
- (ix) University shall have the freedom to revise and notify the courses in the coursework.
- (x) The University shall have the provision to issue Grade Card to all the candidates upon completion of the coursework which can be downloaded from the website.
- (xi) On the basis of the candidates performance in the theory examination, assignments, presentation etc., the candidate will be awarded a grade. The Grades below BC will be considered as Fail.
- (viii) The medium of instruction will be English.
- (ix) The minimum passing criteria for individual component of each subject will be 55%.
- (x) A candidate has to obtain a minimum of 55% of marks or its equivalent grade BC in the course work mandatorily
- (xi) The grade FF is taken into consideration during calculation of result and will be replaced only after obtaining the passing marks in the respective subject with the passing grade.
- (xii) Backlog indicates failure in respective subject. Y shown in a grade head indicates the marks obtained are less than the passing marks in particular head. FF shown in a particular head indicates backlog in a subject. "_" in grade head indicates that the student is not eligible to appear in subject examination. "#" in a grade head indicates that the candidate has remained absent in that examination.
- (xiii) The grace marks rule will be implemented only in the University Theory examination which shall be a maximum of 3 marks per subject.

Ph.D.-8.2 Setting of Question Papers and Evaluation

- (i) [PHD2301] & [PHD2302] external examination component will be conducted by the University.
- (ii) Question papers of these examinations shall be set by the identified examiner/(s) appointed by the Vice Chancellor for this purpose from the panel recommended by the DRC/DRCs.
- (iii) Question papers will revise upon adoption of a new teaching scheme.
- (iv) Question papers will be designed according to the prescribed syllabi.
- (v) The format of the Question paper can be brief / descriptive.
- (vi) The maximum duration of the examination for [PHD2301] will be three hours.
- (vii) The maximum duration of the examination for [PHD2302] will be one and a half hours.
- (viii) Vice Chancellor shall appoint evaluators of the answer scripts which may/may not be the same as those who designed the respective question paper. Vice Chancellor can appoint any other expert from the panel of experts recommended by the DRC/DRCs for this purpose or otherwise.
- (ix) Recheck/ Reassessment will be permitted only in University Theory exam and not in Internal/Mid-component or OMR based exam.

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- (x) A candidate can apply for Recheck/Re-assessment of their own answer sheets only by paying the requisite application fee as per norms. No fee will be refunded irrespective of the change of marks/grade etc.
- (xi) After obtaining the minimum passing marks in Recheck/Re-assessment the revised result will be declared as Pass.
- (xii) Recheck/Re-assessment result will not change if the candidate is unable to secure minimum passing marks respectively.

Ph.D.-8 (B) NORMS FOR MAINTAINING PROVISIONAL REGISTRATION

After issue of photo identity card the following norms shall be applicable to all the candidates for maintaining their provisional registration:

- (i) The course work shall be completed and cleared by each candidate with minimum required marks in each course within a span of one year from the date of generation of enrolment number.
- (ii) In no case the time period for completing the coursework shall exceed four semesters / two years from the date of generation of enrolment number.
- (iii) It is mandatory to complete the course work before proceeding ahead with the DPCs.
- (iv) The provisional registration of candidates failing to fulfill the above requirements shall be automatically cancelled.

Ph.D.-8 (C) CONFIRMATION OF Ph.D. REGISTRATION

- (i) After successful completion of coursework the candidate shall be designated as Research Scholar and the Research Supervisor shall recommend submission of Final Registration to the University.
- (ii) The hard copy of the Final registration form complete in all aspects, along with all enclosures, shall be submitted to the University within thirty days of issue of coursework result which will be reviewed by DRC/DRCs.
- (iii) At this stage the Research Scholar shall be issued a Final Registration Certificate specifying the validity of Ph.D. registration and the allocated research topic.
- (iv) Only after issue of Final Registration Certificate a Research Scholar can proceed ahead with regular DPC reviews, as per norms

Ph.D.-8 (D) CONVERSION OF Ph.D. ADMISSION CATEGORY FROM FULL-TIME TO PART-TIME

- (i) Change of category from Full-time to Part-time will be permitted only once upon the definite recommendation of the respective DRC/DRCs citing genuine reasons.
- (ii) Application for change of category shall be submitted in the University's format and recommended through Supervisor and DPC members.
- (iii) There will be no change in the enrollment number.
- (iv) Research Scholars/candidate shall submit the following for consideration of such application by DRC/DRCs-

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ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક :૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

- (a) No Objection Certificate from the place of work in case of change of place of research work.
- (b) No Objection Certificate/ Order/Letter from employer/organization(s) stating that the Research Scholar will be allowed to pursue doctoral studies at the University in part time mode.
- (c) Letter of appointment from employer/organization(s).
- (v) Research Scholars/candidate shall successfully complete the minimum required 8 DPCs (including coursework) and three annual research weeks for appearing for Pre-submission Seminar (Open Seminar).
- (vi) University will not recover the fellowship amount from the research scholar if the fellowship/stipend is paid by the University.

Ph.D. 8 (E) CONVERSION OF Ph.D. ADMISSION CATEGORY FROM PART-TIME TO FULL TIME

- (i) Change of category from Part-time to Full-time will be permitted only once upon the definite recommendation of the respective DRC/DRCs citing genuine reasons.
- (ii) Application for change of category shall be submitted in the University's format and recommended through Supervisor and DPC member.
- (iii) There will be no change in the enrollment number.
- (iv) Research Scholars/candidate shall submit the following for consideration of such application by DRC/DRCs-
 - (a) No Objection Certificate from the place of work Research Supervisor stating that the required research facility shall be made available to the Research Scholar.
 - (b) No Objection Certificate/ Order/Letter from employer/organization(s) stating that the Research Scholar has been granted a study leave of minimum period of two years OR Research Scholar shall submit an undertaking to the effect that he/she shall not undertake any employment for a minimum period of two years except those mentioned at Ph.D.-5.1.2.(iii)
- (v) Research Scholars/candidate shall successfully complete the minimum required 8 DPCs (including coursework) and three annual research weeks for appearing for Pre-submission Seminar (Open Seminar).

Ph.D.-8 (F) CHANGE OF PLACE OF RESEARCH / RESEARCH CENTRE:

(i) The Research Scholars shall have the possibility to shift from a place of research/ research Centre to another due to reasons like, change of research supervisor, requirement of new/additional equipment / instruments / apparatus and need for special facilities in the case of women candidates.

(ii) In all such cases the DRC / DRCs shall recommend its decision to the Vice Winners of: "Most Promising University of India 2020" ❖ "1" rank Among All Universities in Gujarat 2020 by Uni Rank" ❖ "1" Rank in Gujarat State Institutional Ratings Framework (GSIRF) 2019" ❖ "National Leadership Excellence Award 2019 in Technical Education" ❖ "India's Most Trusted State University 2019 " ❖ "Outstanding University in West India 2019"

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Chancellor. The decision of the Vice Chancellor shall be final and binding.

Ph.D.-9 RECOGNITION / FUNCTIONING OF RESEARCH SUPERVISOR & CO-SUPERVISOR

Ph.D.-9.1 Procedure for Recognition & Continuation

- (i) University shall invite applications, from full time regular / endorsed faculty members, for being recognized as Research Supervisors, through its website.
- (ii) University shall invite applications, from full time regular Scientists working at recognized Research Centre, for being recognized as Research Supervisors, through its website.
- (iii) The faculty member/ Scientist shall apply in the prescribed online format and submit his/her application along with all necessary supporting documents to the University in hard copy too.
- (iv) REC shall scrutinize the applications subject to availability of such applications and shall recommend names of those who fulfill the prescribed criteria for being recognized as Research Supervisors to DRC/DRCs.
- (v) DRC/DRCs shall re-scrutinize all applications and shall recommend names of those who can be recognized as Research Supervisors to Vice Chancellor.
- (vi) DRC/DRCs shall readdress the grievances of not-selected candidates in the next phase only once.
- (vii) List of approved candidates who have been recognized as Research Supervisors shall be notified on the website.
- (viii) Each Research Supervisor shall adhere to the University's Rules & Regulations.
- (ix) Upon recognition, a Research Supervisor shall become eligible to supervise the candidates/ Research Scholars of the University.
- (x) Research Supervisor shall be eligible to supervise candidates/Research Scholars according to the **Ph.D.-10**.
- (xi) Research Supervisor shall not be recognized by the DRC/DRCs if he /she has only three years of service left.
- (xii) Research Supervisor shall immediately inform the University about any change with respect to their place of work and designation and shall stand automatically de-recognized if he is not an employee of the university or its affiliated college/inctituto/rocoarch contro/contral government/stato government research institution.
- (xiii) Research Supervisor can also act as a Co-Supervisor upon the recommendation of the respective DPC and subsequent recommendation of DRC/DRCs to supplement the expertise on a research topic and approval of Vice Chancellor.
- (xiv) Research Supervisor shall recommend name of Co-Supervisor(s) (if required) and shall submit the due No objection certificate to this effect.
- (xv) Co-Supervisor can be appointed by the University upon the recommendation of the respective Research Supervisor or DPC and subsequent recommendation of DRC/ DRCs to supplement the expertise on a research topic and approval of Vice Chancellor in cases of research topics which are

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Ph.D.-9.2 Eligibility for Recognition as Research Supervisors

(i) A Faculty/Scientist who has obtained / was awarded Ph.D. degree and is working on a full time regular basis or is endorsed by the University or is working on a full time regular basis at a recognized research centre shall be eligible for recognition as a Research Supervisor, provided he/she obtains a minimum of 60 (sixty) points in total as per the below mentioned criteria:

Sr. No.	Eligibility Criteria	Points to be obtained	Maximum Points	
1.	Research Publications in refereed journals* after having obtained Ph.D. degree	30		
(i)	Assistant Professor (At-least 3)	(compulsory)	(compulsory)	
(ii)	Associate Professor (At-least 5)	(compaison))	(compulsory)	
(iii)	Professor (At-least 5)			
2.	Total Toaching / Poscarch / Industry Experience			
<u>z.</u> (i)	Total Teaching / Research / Industry Experience Post-Graduate	6 per year	1	
~		5 per year	20	
(ii)	Post- Graduate/ Under-Graduate	4 per year		
(iii)	Under-Graduate	2 per year	_	
(iv)	Diploma			
(v)	Research & Development	2 per year		
3.	Guidance as Supervisor/ Co-Supervisor	1		
(i)	Acted as a Supervisor (in any other UGC / State University) and has supervised Ph.D. Thesis for which the Degree / Notification has been awarded	5 per Thesis		
(ii)	Acted as a Co- Supervisor and has supervised Ph.D. Thesis for which the Degree / Notification has been awarded	4 per Thesis	10	
(iii)	Acted as a Supervisor for Post Graduate Thesis for which the Degree has been awarded	3 per Thesis		
(iv)	Acted as a Co-Supervisor for Post Graduate Thesis for which the Degree has been awarded	2 per Thesis		
4.	Research Grant availed (minimum INR 1,00,000/)			
(i)	As a Principle Investigator (PI)	5 per project		
(ii)	As a Co- Principle Investigator	2.5 per project	10	
5.	Research Project completed (minimum INR 1,00,000/-)			
(i)	As a Principle Investigator (PI)	5 per project		
(ii)	As a Co- Principle Investigator	2.5 per 10 project		

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6.	Research and/or consultancy work completed (minimum INR 1,00,000/-)	2 per project	10
7. (A)	Patents		
(i)	Registered	2 per patent	
(ii)	Published	4 per patent	10
(iii)	Granted	10 per patent	
7. (B)	Copyright/Design	4 per copyright/de sign	10
8.	Additional research publications during the last five years in refereed* journal. These publications shall be over and above those mentioned Ph.D.9.2.(i).1	3 per paper	10

*Research journals indexed/listed in UGC-CARE/ WoS/SCOPUS / SCI

- (ii) A Faculty/Scientist who has obtained / was awarded Ph.D. degree from a Foreign Educational Institution will be determined by producing document/ certificate that the degree/equivalent qualification obtained from a foreign educational institution is accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under law in its home country or any other statutory authority in that country to access, accredit or assure quality and standard of educational institution or by AIU.
- (iii) Adjunct Faculty members shall not act as Research Supervisors and can only act as co-supervisors.

Ph.D.-9.3 Eligibility for Recognition as a Co-Supervisor

- (i) Co-Supervisor can be appointed by the University upon the recommendation of the respective Research Supervisor or DPC and subsequent recommendation of DRC/ DRCs to supplement the expertise on a research topic and approval of Vice Chancellor in cases of research topics which are inter-disciplinary/multidisciplinary in nature.
- (ii) A Faculty/Scientist / Adjunct Faculty who has obtained/was awarded Ph.D. degree and is serving within the same department/ any other Department/Faculty/College which is under the control/ jurisdiction of this University, but not from the same institution unless the domain knowledge of the co-supervisor is complementary or the facilities available at their laboratory/institution is useful for research.

Or

A Faculty/ Scientist /Adjunct Faculty/ An Expert who has obtained/was Winners of: "Most Promising University of India 2020" * "1strank Among All Universities in Gujarat 2020 by Uni Rank" * "1strank in Gujarat State Institutional Ratings Framework (GSIRF) 2019" * "National Leadership Excellence Award 2019 in Technical Education" * "India's Most Trusted State University 2019" * "Outstanding University in West India 2019"

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awarded Ph.D. degree and is serving within the same department/ any other Department/Faculty/College/Research Organization / Laboratory / Industry which is not under the control /jurisdiction of this University, but not after attaining the age of 70 years.

Or

An Expert from an Industry having a minimum ten years of industrial experience and is serving an Institution/Organization/Industry not under the control/jurisdiction of this University, but not after attaining the age of 70 years.

Ph.D.-9.4 Duties and Functions of a Research Supervisor and Co-Supervisor

- (i) Research Supervisor shall declare the number of vacant seats available with them in specific Faculty/discipline in which they are recognized.
- (ii) Research Supervisor shall recommend names and submit details of at least three domain experts fulfilling the following criteria(s) relevant to/with the research topic of a particular Research Scholar
 - a) The recommended domain expert shall possess Ph.D. degree
 - b) The recommended domain expert shall possess at least two years of research experience in the area relevant to/with the research topic of the Research Scholar
- (iii) A Candidate/ Research Scholar may have a Co-supervisor based on the recommendation of Research Supervisor and approval of DRC and Vice Chancellor.
- (iv) Research Supervisor, who is a Member Convener of the DPC in consultation with Co-Supervisor (if appointed) and both appointed DPC members shall send a request for conduction of DPC review on TMMS Portal through Supervisor Login and inform the Research Scholar through email.
 - Research Supervisor shall convene at the most two DPC reviews in a year having at least a minimum gap of 5 months between two such consecutive reviews. All such requests should be made on TMMS portal. Research Supervisor shall convene the DPC review meeting either through any *e-medium or in-person*.
 - a) If the DPC review is conducted in-person then such a review should either take place at University's Affiliated College / Workplace of any of the DPC members / Workplace of Research Supervisor/ Co-Supervisor (if appointed) on the same date as intimated.
 - b) DPC Member will submit their inputs within 3 working days through email to the concerned Research Supervisor.
- (vii) The Research Supervisor shall immediately inform the University if a scheduled DPC review could not take place due to any reason. The Research Supervisor shall reschedule the DPC review of a respective

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	and also be delicated and the second
	scholar by intimating the new date through e-mail. Upon approval by the University the same date shall be reflected on TMMS portal.
(viii)	Research Supervisor shall inform the Research Scholar through e-mail to
()	submit the progress report to all the members of the DPC before ten
	days of the scheduled DPC review. This progress report should contain
	the progress/achievements made during the period under review and
	plan(s) for the rest of the programme.
(ix)	Research Supervisor and/or the Research Centre shall maintain
	attendance and leave records of all full-time research scholars allotted
	under his/her Supervision.
(x)	Research Supervisor shall inform the Research Scholar to attend the
	scheduled annual Research Week reviews organized by the University.
(xi)	Research Supervisor shall apprise the Research Scholar to clearly state
	sources from where the information is derived, to obtain animal and/ or
	human ethical approvals or any other approval(s) as may be required from any statutory body/ bodies for the progress of their research work
	and inform the same to the University along with the latest DPC review
	card.
(xii)	Research Supervisor shall be responsible to inform the Research Scholar
	about the extent to which the work of others can be made use of, self-
**	plagiarism and the portion of the work the researcher claims as original.
(xiii)	Research Supervisor shall inform the Research Scholar that not attending
	the scheduled DPC review(s) will extend the duration of the Ph.D.
	course.
(xiv)	Research Supervisor shall inform the Research Scholar that
	consecutively not attending three scheduled DPC review(s) shall render
(101)	the Research Scholar liable for cancellation of his/her registration.
(xv)	Research Supervisor shall inform the Research Scholar that three consecutive unsatisfactory performance in scheduled DPC review(s) shall
	render the Research Scholar liable for cancellation of his/her registration.
(xvi)	Research Supervisor shall recommend and certify all application(s) or
(,,,,	any other document(s) or request pertaining to research or any other
	activity related Ph.D. programme before forwarding it to the University.
(xvii)	Research Supervisor shall be responsible for mentioning whether the
	progress is satisfactory / accepted & Research Scholar shall be allowed
	to continue or progress with his/her research in the next term/semester
	or unsatisfactory /not-accepted & Research Scholar shall be allowed to
	redo his/her research in the next term/semester.
(xviii)	Research Supervisor shall provide a copy of DPC review card to the
	Research Scholar as early as possible or within a maximum of five days
(viv)	from the conduct of such review.
(xix)	Research Supervisor can opt to become Co-Supervisor as per norms Research Supervisor shall immediately inform the University and request
(xx)	for replacement, in the University's format, where any or both the
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- a) DPC member is/are declining to continue to review the progress of Research Scholar
- b) DPC member has/have shifted or are stationed outside Gujarat, at a later stage.
- c) DPC member is /are terminally ill and is/are unable to continue to review, assist and monitor the progress of Research Scholar.
- d) DPC member against whom any sort of disciplinary / misconduct action(s) has been initiated by any agency

Such application for replacement of DPC members shall be processed by the DRC / DRCs and recommended for approval to the Vice Chancellor.

- (xxi) Research Supervisor shall immediately inform the University and request for replacement of a Co-Supervisor / DPC Member(s) and submit due No Objection Certificate to this effect, as per University rules, for removal / change of Co-Supervisor / DPC Member(s) for a Research Scholar citing valid reasons. Such application shall be processed by the DRC / DRCs and recommended for approval by the Vice Chancellor.
- (xxii) No Research Supervisor/Co-Supervisor shall supervise his/her close relation.

The term "Close Relation" includes father, mother, wife, husband, son, daughter, sister, brother, nephew, niece, grand-son, grand-daughter, grand-nephew, grand-niece, uncle, aunt, first cousin, son-in-law, daughter-in-law, brother-in-law, sister-in-law, father-in-law, mother-in-law of the Supervisor and also the nephew, niece, grand-nephew, grand-niece of Supervisor's wife.

Ph.D.-10 INTAKE / SEAT ALLOCATION FOR RESEARCH SUPERVIORS AND CO-SUPERVISORS

- (i) Research Supervisor who is a Professor having at least five publications shall not undertake to offer supervision for a maximum of eight (8) Research Scholars including Part-time scholars.
- (ii) Research Supervisor who is an Associate Professor having at least five publications shall not undertake to offer supervision for a maximum of six (6) Research Scholars including Part-time scholars.
- (iii) Research Supervisor who is an Assistant Professor having at least three publications shall not undertake to offer supervision for a maximum of four (4) Research Scholars including Part-time scholars.
- (iv) Research Supervisor who is a Scientist working at recognized research centre shall be allocated seats by the respective DRC/DRCs as equivalent to Professor/ Associate Professor/ Assistant Professor depending upon their experience and expertise but not beyond 8/6/4 respectively.
- (v) DRC/DRCs shall not permit a Research Supervisor to start supervising more than four research scholars in an academic year.
- (vi) In no case there can be more than two Research Supervisor(s) and two Co-Supervisors for a Research Scholar.

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- (vii) Research Supervisor who is also a recognized Research Supervisor with any other University shall not be permitted to supervise beyond the permitted intake as in **Ph.D.-10(i)**, (ii), (iii) and (iv) by the DRC/DRCs.
- (viii) In case of promotion of a Research Supervisor the intake / seat allocation will be revised accordingly upon submitting due documents, in the University's format, for scrutiny by the DRC/DRCs.
- (ix) Research Supervisor shall not declare any intake/vacant seats if he/she has less than three years of service left before the prescribed age of retirement from the College/ Centre/ School/ Department/ Institution/ Recognized Research Centre concerned at the time of declaration / start of the admission process for Ph.D. admission.
- (x) DRC/DRCs shall allocate Research Supervisors to the selected candidates.
- (xi) Research Supervisor may decide on the number of seats that he/she may like to fill in a particular year within his/her permissible strength. However, the University reserves the right to allocate more/less number of candidates to a Research Supervisor upon approval of the Vice Chancellor.
- (xii) Research Supervisor should not take into consideration those Research Scholars while declaring the number of vacant seats available with them for a particular academic year who have been issued provisional certificate for award of Ph.D. degree.
- (xiii) A special provision of creating supernumerary Ph.D. seats available in the concerned faculty not exceeding 10(%) percent of the total seats in a particular discipline, if there is no vacant seat available with the eligible Research Supervisor, in that particular discipline for encouraging the faculty members of colleges and universities for getting Ph.D. degree, as laid down in the UGC Regulations for Appointment of Teachers and Other Academic Staff in Universities and Colleges and Measures for the Maintenance of standards in Higher Education, 2018.
- (xiv) Supernumerary Ph.D. seats can be created for already enrolled Research Scholars upon recommendation of the DRC/DRCs and approval of Vice Chancellor.
- (xv) Each Research Supervisor can supervise up to two international/FN/PIO candidates/ Research Scholars on Supernumerary Ph.D. seats over and above the permitted number **Ph.D.-10(i)**,(ii),(iii) and (iv)
- (xvi) Co-Supervisor from within the same department/faculty/college or other department of the same institution or other institutions or industry can be appointed by the Vice Chancellor upon the recommendation of DRCs.
- (xvii) The DRC/DRCs can allow Co-Supervisor to co-supervise candidates who is not a recognized Research Supervisor
- (xviii) The DRC/DRCs can allow Co-Supervisor to co-supervise candidates to a maximum of two for those from academics and a maximum of four for those from industries.
- (xix) The DRC/DRCs should not take into consideration the allocation of seats for International Co-supervisors.

Ph.D.11 APPOINMENT OF IN-CHARGE RESEARCH SUPERVISOR

Ph.D.11.1 Procedure to be followed where Research Supervisor is away for more than two months and up to six months.

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ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક :૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

- (i) An In-charge Research Supervisor shall be appointed by the Vice Chancellor on the recommendation of DRC/ DRCs based on the request and recommendation of the Research Supervisor of the Research Scholar.
- (ii) In-charge Research Supervisor shall fulfill all duties and responsibilities till the appointed Research Supervisor returns.
- (iii) In-charge Research Supervisor shall not be entitled for claiming any intellectual right on the research work of such Research Scholars and Research Supervisors.
- (iv) All such applications of appointment of In-charge Research Supervisor shall be submitted to the University, as per the format, at least one month in advance.

Ph.D. 11.2 Procedure to be followed where Research Supervisor resigns or shifts to another University/ College or an affiliated institution(s) becomes a Private University before submission of Final Registration by the candidate.

(i) An alternate Research Supervisor shall be appointed by the Vice Chancellor upon the recommendation of the DRC/ DRCs.

Note 1: For those Research Scholar who wish to continue work on the same research topic, he/she shall submit the requisite form, in the University's format, specifying the appointment of an alternate Research Supervisor along with the letter of No Objection from appointed Research Supervisor clearly specifying that he/she does not have any objection if the Research Scholar continues to work on the same research topic and will not claim any rights/privileges, etc. on the research work done by the Research Scholar presently under the supervision of the alternate Research Supervisor, at a later stage.

Note 2: A No Objection letter from alternate Research Supervisor, should specify that he/she shall continue to supervise the Research Scholar on the present research topic and will ensure that proper recognition/acknowledgement etc. shall be imparted to the allotted Research Supervisor.

Ph.D. 11.3 In case of death / disability / any other condition(s) which renders a Research Supervisor unfit for the conduct of his/her duties, an alternate Research Supervisor shall be appointed by the Vice Chancellor upon the recommendation of the DRC/DRCs and shall take care of all administrative and research responsibilities of the Candidate/Research Scholar.

Note 3: For those Research Scholars where a change of research title is recommended by alternate Research Supervisor, the application for change of research title shall be processed first, if final registration form/ certificate has been submitted/issued, and then the alternate Research Supervisor can conduct a Self-Study course on the new research title, if required, and shall be treated as an additional Self-Study course. This additional self-study course shall be submitted to the University.

Note 4: If the Research Scholar has successfully cleared the coursework then the additional Self-Study course result shall not affect the coursework result of the Research Scholar.

Ph.D.-11.4 Handling of Conflict

In case of receipt of request letter stating conflict between the Research Supervisor and/or Co-Supervisor and/or In-charge Research Supervisor and the Research Scholar, from either or both the parties the matter shall be referred to the Vice Chancellor. The decision of the Vice Chancellor shall be final and binding in this regard.

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Ph.D.-12 DE-RECOGNITION OF RESEARCH SUPERVISOR(S) / CO-SUPERVISOR(S)

Vice Chancellor shall de-recognize a recognized Research Supervisor on account of:-

- (i) A Research Supervisor shall be de-recognized who seeks fresh registration of candidates under his/her supervision whose superannuation or term of leaving service is up to or less than three years.
- (ii) Communication in any form with the Thesis adjudicators by the Research Supervisor/Co-Supervisor after the submission of Synopsis/ Thesis by the Research Scholar in connection with the evaluation report shall lead to withdrawal of the Research Supervisorship for a period of three years and they shall be debarred from supervising the existing Research Scholars of the University till such period.
- (iii) Once recognized as Research Supervisor of this University, a Research Supervisor shall not seek/obtain Supervisorship from any other University. However, the recognized Research Supervisors can function as Co-Supervisor for scholars working in association with other reputed Universities/Institutions/ Research & Development laboratories which have Memorandum of Understating with Gujarat Technological University.
- (iv) Any violation of regulations by the Research Supervisor/ Co-Supervisor shall lead to withdrawal of the Supervisorship either permanently or for a maximum period of three years and they shall be debarred from guiding the existing scholars in the University till such period.

Ph.D.-13 PERIODIC REVIEW BY THE DOCTORAL PROGRESS COMMITEEE

Ph.D.-13.1 Procedure for Review

Each Research Scholar who was declared successful in the Ph.D. Coursework examination shall submit a Final Registration form, in the University's format, recommended through the Research Supervisor. Only after the issue of Final Registration Certificate, the Research Scholar shall be allowed to progress in his/her research work.

- (i) For each review the Research Scholar must submit a minimum 4 page or a maximum 10 page progress report to the Supervisor, Doctoral Progress Committee (DPC) members and Co-Supervisor (if appointed) before 10 days of the scheduled DPC review through email.
- (ii) Research Scholar will appear before the DPC once in every six months and make a presentation of the progress of his/her work for evaluation and guidance.
- (iii) Research Scholar shall appear in Research Week reviews after issue of Final registration certificate, as and when organized by the University. Research Week reviews shall be treated as additional reviews.
- (iv) Research Supervisor shall submit all requests for conduct of DPC on the TMMS portal after obtaining consent of all other members of the DPC.
- (v) Once the date of conduct of DPC is approved by the University on the TMMS portal the Research Supervisors shall conduct the DPC review.
- (vi) DPC shall review, assist and monitor the progress of the Ph.D. work of Research Scholar till the submission of the thesis.

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- (vii) DPC review card shall be downloaded from the TMMS portal.
- (viii) Research Supervisor shall be responsible to submit all records of the DPC to the University within fifteen days from the day of convening such meetings.

Ph.D.13 (A) MAINTENANCE OF REGISTRATION

- (i) All enrolled candidates shall deposit their due semester tuition fee between 1st 20th January and between 1st to 20th July every year for continuation of their registration till the completion of pre-submission seminar or cancellation of registration as the case may be along with other fee(s) as notified.
- (ii) A tuition fee of INR 13000/ (Thirteen thousand only) per semester shall be paid by each enrolled Research Scholar belonging to General category till the completion of pre-submission seminar as the case may be along with other fee(s) as notified including library fee.
- (iii) A tuition fee of INR 11000/ (Eleven thousand only) per semester shall be paid by each enrolled Research Scholar belonging to either SC/ST/SEBC/ EWS categories till the till the completion of pre-submission seminar as the case may be along with other fee(s) as notified including library fee.
- (iv) Upon nonpayment of respective semester tuition fee a penalty shall be levied

Penalty to be paid from 21st January to 19th February	INR 1200/- (penalty) + respective semester fee
Penalty to be paid from 20 th February to 19 th April	INR 2400/- (penalty) + respective semester fee
Penalty to be paid from 20 th April to 19 th May	INR 6600 (penalty) + respective semester fee
Penalty to be paid from 20 th May to 30 th June	INR 6600 (penalty) + respective semester fee + INR 100 (penalty per day)
Penalty to be paid from 21st July to 19th August	INR 1200/- (penalty) + respective semester fee
Penalty to be paid from 20 th August to 19 th October	INR 2400/- (penalty) + respective semester fee
Penalty to be paid from 20 th September to 19 th November	INR 6600 (penalty) + respective semester fee
Penalty to be paid from 20 th November to 31 st December	INR 6600 (penalty) + respective semester fee + INR 100 (penalty per day)

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- (v) The paid respective semester tuition fee, after generation of enrollment number, shall neither be refunded nor adjusted in any case.
- (vi) The deposited caution money (INR 1000) can be refunded after the award of Ph.D. degree/notification upon submitting due application.
- (vii) Research Scholar shall pay INR 8000/- (Eight Thousand only) as Thesis Evaluation fee at the time of submission of Synopsis.
- (viii) If an initial extension of one year in two slots of six months each is granted to the Research Scholar then the Research Scholar shall be liable to pay the applicable semester fee for each such extension.
- (ix) Candidates residing outside the state of Gujarat will have to pay the respective tuition fee of 41000/- per semester irrespective of the category.
- (x) For re-submission of revised thesis on account of major modification the Research Scholar shall be liable to pay a processing fee of INR 1000/- per month till such re-submission, as per the extension granted. This processing fee shall be over and above the Thesis Evaluation fee and shall be paid to the University at the time of re-submission of revised thesis after incorporating corrections/ revisions indicted by the Adjudicator(s).
- (xi) Women and Differently-Abled Research Scholars who have been allowed to avail relaxation shall be liable to pay the applicable semester fee.
- (xii) Women Research Scholars who have been allowed to proceed on Maternity/Child care leave shall be liable to pay the applicable semester fee.
- (xiii) University reserves the right to revise the tuition fee or any other fee from time to time and/or before the start of next semester.

Ph.D.-13 (B) REFUND OF FEE UPON WITHDRAWAL OF CANDIDATURE FROM Ph.D. ADMISSION

If the candidate chooses to withdraw from the program at Pre-Registration the University shall follow the following four-tier system for refund of fees

Sr. No.	Percentage of Refund of Aggregate fees (excluding caution money and security deposit)	Point of time when notice/application of withdrawal of admission is served.
1,	100%	If the notice/application is served within the time period of on-going Pre-Registration. However, the University shall charge INR 1000/- (one thousand only) as processing fee.
2.	80%	15 days after the last date of submission of Pre-Registration Form.
3.	50%	More than 15 days but less than 30 days after the last date of submission of Pre-Registration Form.
4.	00%	More than 30 days after the last date of submission of Pre-Registration Form

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Ph.D.-13 (C) MODIFICATION OF RESEARCH TITLE

If at a later stage, while progressing with the research work the Research Scholar and DPC concludes that the research title assigned in Final Registration Certificate cannot be pursued any further;

- (i) Research Scholar and DPC can submit a request for modification of the research title stating/justifying their request for such change, in the University's format.
- (ii) Such request for modification of research title shall be processed only once during the entire period of registration in the Ph.D. programme.
- (iii) Research Supervisor shall be responsible for conducting at least one DPC review with modified research title, if such a request has been accepted by the University before proceeding ahead with Pre-Submission Seminar.
- (iv) The Vice Chancellor upon specific recommendation of the DRC/DRCs may allow for such modification.

Ph.D.-13 (D) MINIMUM PERIOD FOR SUBMISSION OF THESIS BY FULL – TIME RESEARCH SCHOLARS

- (i) Research Scholars enrolled for the Ph.D. degree shall normally be eligible for submission of the Thesis after a minimum period of three years upon completion of at least six successful DPC reviews including coursework from the date of generation of enrollment and attending two Research Week reviews, subject to fulfillment of all other prescribed requirements.
- (ii) DPC after considering the progress made by the Research Scholar may recommend to the Research Scholar to take steps to submit the Synopsis to the University first followed by the Thesis within the validity period.

Ph.D.-13(E) MINIMUM PERIOD FOR SUBMISSION OF THESIS BY PART — TIME RESEARCH SCHOLARS

- (i) Research Scholars enrolled for the Ph.D. degree shall normally be eligible for submission of the Thesis after a minimum period of four years and upon completion of at least eight successful DPC reviews including coursework from the date of generation of enrollment and attending three Research Week reviews, subject to fulfillment of all other prescribed requirements
- (ii) DPC after considering the progress made by the Research Scholar may recommend to the Research Scholar to take steps to submit the Synopsis to the University first followed by the Thesis within the validity period.

Ph.D.-13 (F) CANCELLATION OF Ph.D. REGISTRATION

Ph.D. registration of the research scholar is liable to be cancelled for any of the following reasons:

- (i) Violation of discipline, conduct rules of the University/ Research Centre.
- (ii) Registration of those Research Scholar shall be automatically cancelled if he/she fails in coursework examination or fails to submit the Synopsis of the Thesis within 06 years (08 years in case of Women Research Scholars and

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- Differentially abled Research Scholars) from the date of generation of enrollment if extension is not sought/granted.
- (iii) Non-conformity with the rules/regulations of the programme.
- (iv) Submitting false information in application/admission/registration form(s).
- (v) DPC shall be free to recommend the cancellation of Ph.D. registration of the Research Scholar if consistent lack of progress in research is observed on account of
 - a) Failing to pass the course work examination.
 - b) Three consecutive DPC reviews are not adjudged to be satisfactory
 - c) Three consecutive DPC reviews are not attended by the Research Scholar
 - d) Before recommending cancellation of registration, the DPC shall issue a show-cause notice to the Research Scholar, seeking his/her explanation.
 - e) If the explanation is not agreed, the Research Scholar shall be free to appeal to the Vice Chancellor with valid reasons, seeking intervention.

The decision of the Vice Chancellor shall be final and binding.

Ph.D.-13 (G) RE-REGISTRATION

- (i) After the cancellation of registration, the Ph.D. registration can be revoked if the reason is agreed upon by Vice Chancellor considering the circumstances even upon completion of the Maximum Period for Submission of Ph.D. Thesis.
- (ii) The Ph.D. registration can only be revoked for those who have successfully completed course work and have completed the minimum required DPCs (six/eight as the case may be).
- (iii) The Research Supervisor should forward this letter and the draft thesis, along with a letter in support of the appeal to the Vice Chancellor.
- (iv) Under some circumstances the cancellation of the Ph.D. registration can be revoked if the reason is agreed upon by Vice Chancellor considering the circumstances even upon completion of the Maximum Period for Submission of Ph.D. Thesis

	Cancellation of Registration after	Time period for revocation by Vice Chancellor*	
Research Scholars	6 years from the date of generation of enrolment number	6 years to 7 years from the date of generation of enrolment number up to a maximum of 1 year	from the date of generation of enrolment number in
Women Research Scholars	8 years from the date of generation of enrolment number +	9 years to 10 year generation of enrolmore maximum of 1 year	

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	240 days of maternity leave (if availed)	
Differentially- abled Research Scholars	8 years from the date of generation of enrolment number	9 years to 10 years from the date of generation of enrolment number up to a maximum of 1 year

^{*}The DRC/DRCs shall recommend such extension(s) to the Vice Chancellor for permitting revocation of Ph.D. Registration.

Ph.D.-14 PRE-SUBMISSION SEMINAR

Ph.D.14.1 Eligibility for Pre-submission Seminar

- (i) Full time Research Scholars who have successfully completed a minimum of six
 (6) DPCs including course work and attended at least two Research Week reviews.
- (ii) Part- time Research Scholars who have successfully completed a minimum of eight (8) DPCs including course work and attended at least three Research Week reviews.
- (iii) Research Scholars should have paid the semester fee up till the current ongoing Semester.

Ph.D.-14.2 Procedure for Pre-Submission Seminar

- (i) Research Supervisor shall request the University at least one month in advance for proceeding ahead with the Pre-Submission Seminar of the Research Scholar, after satisfying all requirements.
- (ii) Pre-Submission Seminar request shall be submitted in the University's format and also on TMMS portal.
- (iii) Pre-Submission Seminar shall be notified on the University's website.
- (iv) Pre-Submission Seminar of the Research Scholar will be conducted online
- (v) The DPC shall remain present during the Pre-Submission Seminar.
- (vi) Pre-Submission Seminar shall be open for all faculty members, other Research Scholars, members of the academic fraternity and experts.
- (vii) Pre-Submission Seminar shall be arranged with the object of getting feedback(s) and comments/suggestions, for being suitably incorporated into the thesis, under the guidance of the DPC.
- (viii) If the Pre-Submission Seminar could not be conducted due to any reason, then the Research Supervisor should immediately inform the University by e-mail stating reasons for such cancellation.
- (ix) Research Supervisor shall follow the same procedure for rescheduling the Pre-Submission Seminar.

Ph.D.-14.3 Pre-Submission Seminar

(i) Research Scholar shall present his/ her work before the audience including DPC, demonstrating his/her preparedness to submit the Synopsis to the University. Research Scholar shall be free to submit the Synopsis to the

University if the Pre-Submission Seminar is satisfactory.
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- (ii) However, if the performance of the Research Scholar in the Pre-Submission Seminar is not- satisfactory, the DPC shall point out deficiencies and shall ask the Research Scholar to repeat the Pre-Submission Seminar within three months.
- (iii) The procedure for reappearing for Pre-Submission Seminar shall be the same as **Ph.D.-14.2**
- (iv) Only on satisfactory performance at this stage, the DPC shall permit the Research Scholar to submit the Synopsis of the Thesis.
- (v) Pre-Submission Seminar report should be submitted to the University as per the format within 15 days of conduct of Seminar.

Ph.D.-14.4 Permission for Submission of Synopsis & Thesis

The DPC shall be free to permit a Research Scholar whose performance was satisfactory in the Pre-Submission Seminar to submit the Synopsis & Thesis. DPC shall endorse all report of the Research Scholar during his enrollment with the Ph.D. programme of the University.

Ph.D.-15 PUBLICATION REQUIREMENT

Ph.D.15.1 Mandatory Publication Requirement

- (i) Each research scholar shall publish at least one paper listed/indexed in UGC Care/WoS/SCOPUS and another research paper can be published in any other journal.
- (ii) All enrolled Research Scholars will specify their designation as Research Scholars, Gujarat Technological University, Ahmedabad in

all their Publications made/done by them during their course of Doctoral (Ph.D.) study/registration/enrolment.

For Ex.: <Scholar Name>, Research Scholar, Gujarat Technological University, Ahmedabad

(iii) The respective Research Supervisor must be the corresponding author in all publications done by Research Scholar during their course of Doctoral (Ph.D.) study/registration/enrolment.

Ph.D.-16 SUBMISSION OF SYNOPSIS AND THESIS

The Ph.D. program culminates with the submission of a thesis of substantial original research work carried out by the Research Scholar under the guidance of the Research Supervisor. The thesis is expected to be potentially fit for publication and should stand peer reviewed.

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Ph.D.-16.1 Eligibility for Submission of Synopsis and Thesis

- (i) Upon successful completion of the Coursework and satisfactory research progress, as prescribed in these regulations, and successful completion of Pre-Submission Seminar, the Research Scholar shall be considered ready for the submission of the Synopsis.
- (ii) DPC after considering the progress made by the Research Scholar may recommend the Research Scholar to take steps to submit to the University the Synopsis first followed by the Thesis.

Ph.D.-16.2 Submission of Synopsis

- (i) Within a maximum of two months from the date of successful completion of Pre-Submission Seminar, the Research Scholar shall submit a soft copy of the Synopsis along with six hard copies to the University forwarded through the Research Supervisor in the prescribed University's format, printed on both sides.
- (ii) The submitted Synopsis shall be forwarded by the Research Supervisor to the University.
- (iii) Research Scholar shall also pay the prescribed Thesis Evaluation fee.

Ph.D.-16.3 Submission of Thesis

- (i) Within a maximum of six months from the date of submission of the Synopsis, the Research Scholar shall submit a soft copy of the thesis along with four hard copies to the University forwarded through the Research Supervisor in the prescribed University's format, printed on both sides.
- (ii) It shall be submitted to the University through the respective Research Supervisor in two hard copies and a soft copy together with
 - a) Application for adjudication of the Thesis
 - b) Undertaking/Declaration from the Research Supervisor stating that the Research Scholar has fulfilled all requirements.
- (iii) Research Supervisor shall also certify that the thesis submitted is a record of original research work done by the Research Scholar during the period of study under his/her supervision and the submitted thesis shall not contain any material infringing upon the copyright of any individual/organization by submitting a certificate in the prescribed University's format.
- (iv) Research Supervisor shall also ensure that the thesis or any part of the thesis is not a reproduction, in part or whole, of Research Scholar's or Research Supervisor's own previously published work without adequate citation and proper acknowledgement and is not self-plagiarised in any form by submitting an Originality Report Certificate in the prescribed University's format.
- (v) It shall be ascertained by the Research Supervisor(s) that the information such as text, tables, equations, diagrams, figures, charts, graphs, photographs, taken from the various sources has been cited appropriately by the Research Scholar in the thesis.

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Ph.D.-17 ANTI-PLAGIARISM CHECK AND SUBMISSION OF THE THESIS

- (i) The Research Scholar shall check his/her thesis with any reputed antiplagiarism software.
- Similarities up to 10% shall be allowed. (ii)
- Common knowledge or coincidental terms, up to fourteen (14) consecutive (iii) words shall be allowed.
- Similarity checks shall exclude all quoted work with all necessary permission (iv) and/or attribution, all references, bibliography, table of contents, preface and acknowledgements and all generic terms, formula, laws, standard symbols and standard equation.
- (v) The submitted thesis shall be based on original ideas.
- (vi) Research Scholar and Research Supervisor shall certify the University's certificate for Originality at the time of submitting the thesis.

Ph.D.18 ADJUDICATION OF Ph.D. THESIS

Ph.D.18.1 **Panel of Adjudicators**

The period of six months between the submission of Synopsis and the Thesis by the Research Scholar shall be used by the University for deciding the panel of Adjudicators.

Selection of Adjudicators Ph.D.18.2

- (i) Research Supervisor shall forward to the University the proposed adjudicators containing details of seven experts for adjudication of the thesis. The list of proposed adjudicators shall be forwarded to the University along with the Synopsis.
- Research Supervisor shall ensure that out of the proposed seven experts, two (ii) should be from abroad and four should be from the country but not from Gujarat, preferably from institutions of national importance.
- (iii) Vice Chancellor shall choose two adjudicators from the suggested panel for adjudication of the thesis.
- Vice Chancellor may ask the Research Supervisor to re-submit the proposed (iv) panel of adjudicators and or may ask the concerned DRC/DRCs to submit the panel of adjudicators for adjudication of a thesis, if required, or may select adjudicators from outside the panel under special circumstances.
- Controller of Examination shall sent invitation letters to the two chosen (v) adjudicators along with a copy of the Synopsis.
- Their acceptance shall be preferably obtained within one month from the date (vi) of invitation before taking any further step.

Ph.D.18.3 **Appointment of Adjudicators to Evaluate the Thesis**

- (i) 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 by Vice Chancellor Ph.D.18.2 (iii) and (vi).
- (ii) The two adjudicators above shall be appointed by the Vice Chancellor to adjudicate the submitted thesis.

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Ph.D. 18. 4 Dispatch of copies of Thesis to Adjudicators

- (i) The University shall send a copy of the Thesis to identified Adjudicator appointed by the Vice Chancellor for evaluation, with a request to evaluate the thesis and send the evaluation report, as per the prescribed University's format within a period of two months.
- (ii) If the report is not received from the Adjudicator(s) within this period, a reminder thrice in a month to this effect shall be sent to the Adjudicator(s) concerned.
- (iii) If any of the adjudicator does not send the report even after three reminders or does not reply to the communication(s) from the University, the Vice Chancellor shall identify and appoint another Adjudicator either from the panel or upon recommendation of the concerned DRC/DRCs or outside the panel, if required.

Ph.D. 18.5 Receipt of Thesis Reports at the University

- (i) All the adjudicators shall evaluate the thesis and send their reports as per the format independently to the Controller of Examination in the prescribed University's format.
- (ii) The Report shall also include the following:
 - a. A critical review of work carried out by the candidate as expressed in the thesis.
 - b. Suggestions, if any, for modification / further research or analysis required to be done.
 - c. A definite recommendation as to whether the thesis has attained the standard for the award of Ph.D. degree or not.
 - d. Points to be clarified at the public Viva-Voce
- (iii) The Adjudicators shall make any one of the following recommendations that the:
 - a. The thesis be accepted as submitted and recommended for public Viva-Voce. OR
 - b. The thesis be accepted with minor revisions, not requiring reexamination and is recommended for public Viva-Voce if the revisions are made under the guidance of Supervisor and DPC members OR
 - c. The Thesis needs major revision and re-submission and is not recommended for public viva voce at present. I would like to evaluate resubmitted thesis again.
 - d. Thesis be rejected.

Ph.D.18.6 Consideration of Thesis Reports

On receiving favourable recommendations from both the appointed adjudicators, the University 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 Research Scholar.

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Ph.D.18.7 Scheduling the final Viva Voce

- (i) The composition of the Viva-Voce Board shall be as specified under **Ph.D.-3.1.4.**
- (ii) In case, the identified adjudicator informs in writing his / her inability to be present at the Viva-Voce, the Controller of Examination shall get another Adjudicator(s) appointed from the panel of adjudicators or panel recommended by the DRC/DRCs or outside after approval of the Vice Chancellor.
- (iii) The date/time of the Viva-Voce shall be intimated by the Research Supervisor in consultation with other members of the board, the Research Centre (if any) and the University.
- (iv) The candidate shall provide clarification(s) to all the queries of the Adjudicators satisfactorily at the time of Viva-Voce.

Ph.D.18.8 Major Modification and Resubmission of the Thesis for re-evaluation

- (i) If any of the external adjudicator gives a definite recommendation that the thesis requires major modification and gives a report, the report shall be sent to the Research Supervisor under intimation to Research Scholar.
- (ii) Research Scholar shall be allowed to re-submit the revised thesis after endorsement by the DPC within a maximum period of three months from the date of sending such report after paying the due processing fee.
- (iii) An extension of another three months can be granted by the Vice Chancellor upon recommendation of the same by the DPC and the DRC/DRCs, under exceptional circumstances to resubmit the revised thesis after paying the due processing fee.
- (iv) The University shall send the re-submitted revised thesis to the same external adjudicator for his/her re-evaluation.

Ph.D.18.9 Adjudication of the Thesis

SI. No.	Adjudicator 1	Adjudicator 2	Decision of the University
1	Thesis be accepted as submitted and recommended for public Viva-Voce	Thesis be accepted as submitted and recommended for public Viva-Voce	Accepted for conducting Viva-Voce
2	Thesis be accepted as submitted and recommended for public Viva-Voce	Minor revision not requiring re-examination, if the revisions are made	Accepted for conducting Viva-Voce
3	Thesis be accepted as submitted and recommended for public Viva-Voce	Major Modification and re-submission	Re-submission of thesis for evaluation again by Adjudicator 2. Viva Voce shall only be conducted

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			after Adjudicator 2 gives a favourable recommendation for conduct of Viva-Voce.
4	Thesis be accepted as submitted and recommended for public Viva-Voce	Rejected	Appointment of Additional adjudicator. If the Additional Adjudicator rejects the thesis will be rejected
5	Major Modification and re-submission	Thesis be accepted as submitted and recommended for public Viva-Voce	Re-submission of thesis for evaluation again by Adjudicator 1. Viva Voce shall only be conducted after Adjudicator 1 gives a favourable recommendation for conduct of Viva-Voce.
6	Major Modification and re-submission	Major Modification and re-submission	Re-submission of thesis for evaluation again to all Adjudicators. Viva Voce shall only be conducted after Adjudicator 1 & 2 gives favourable recommendation for conduct of Viva-Voce.
7	Major Modification and re-submission	Minor revision not requiring re-examination, if the revisions are made	Re-submission of thesis for evaluation again by Adjudicator 1. Viva Voce shall only be conducted after Adjudicator 1 gives a favourable recommendation for conduct of Viva-Voce.
8	Major Modification and re-submission	Rejected	Re-submission of thesis for evaluation again by Adjudicator 1. Appointment of Additional Adjudicator. If the Additional Adjudicator rejects the thesis will be rejected

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9	Minor revision not requiring re-examination, if the revisions are made	Thesis be accepted as submitted and recommended for public Viva-Voce	Accepted for conducting Viva-Voce
10	Minor revision not requiring re-examination, if the revisions are made	Major Modification and re-submission	Re-submission of thesis for evaluation again by Adjudicator 2 & Viva Voce shall be conducted only after Adjudicator 2 gives favourable recommendation for conduct of Viva-Voce.
11	Minor revision not requiring re-examination, if the revisions are made	Minor revision not requiring re-examination, if the revisions are made	Accepted for conducting Viva-Voce
12	Minor revision not requiring re-examination, if the revisions are made	Rejected	Appointment of Additional adjudicator. If the Additional Adjudicator rejects the thesis will be rejected
13	Rejected	Thesis be accepted as submitted and recommended for public Viva-Voce	Appointment of Additional adjudicator. If the Additional Adjudicator rejects the thesis will be rejected
14	Rejected	Minor revision not requiring re-examination, if the revisions are made	Appointment of Additional adjudicator. If the Additional Adjudicator rejects the thesis will be rejected
15	Rejected	Major Modification and resubmission	Re-submission of thesis for evaluation again by Adjudicator 2. Appointment for Additional Adjudicator. If the Additional Adjudicator rejects the thesis will be rejected
16	Rejected	Rejected	Thesis be rejected

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Ph.D.18.10 Appointment of Additional Adjudicator, if necessary

- (i) The Thesis shall not be accepted for award of the degree if any one of the adjudicators finds that the research work is not up to the expected standard, and gives a definite recommendation that the thesis be rejected with detailed reasons for the same.
- (ii) In such a case, the Report shall be considered by the Vice Chancellor to decide on the need to appoint an Additional Adjudicator.
- (iii) An Additional Adjudicator shall be appointed by the Vice Chancellor from the panel or upon recommendation of the concerned DRC/DRCs or outside the panel, based on this decision, who shall be invited for this purpose, by following Ph.D.-18.2 to Ph.D.-18.4
- (iv) If the Additional Adjudicator, after evaluating the thesis gives a favorable Report, the Controller of Examination shall initiate further steps as per **Ph.D. 18.5**
- (v) If the Additional Adjudicator also does not approve the thesis, then the thesis shall be rejected.
- (vi) However, it shall be open for the candidate to seek Ph.D. registration at the University, afresh from **Ph.D.-8A**

Ph.D.-19 CONDUCT OF FINAL VIVA - VOCE

Ph.D.19.1 Procedure for Final Viva-Voce

- (i) The final Viva-Voce shall be conducted by the Viva-Voce Board at a venue declared by the University
- (ii) The composition of Viva-Voce Board shall be as **Ph.D.-3.1.4**
- (iii) The procedure for conducting the Viva-Voce shall be as follows:
 - a. The Research Supervisor shall intimate the date and time for the Viva Vocc in consultation with the Adjudicators appointed by the Vice Chancellor, and inform the same to the University and Controller of Examination, in advance.
 - b. Controller of Examination shall notify the date, place, time of the Viva Voce and the same shall be displayed on the website along with the abstract of the thesis.
 - c. The Research Supervisor can invite members of the teaching staff and other Research Scholars to attend the Viva-Voce.
 - d. The Research Scholar shall make a brief presentation of the research work carried out highlighting the important findings/conclusions.
 - e. After the completion of the presentation, the Research Supervisor shall give opportunity to the invitees to seek clarifications, if any, from the Research Scholar.
- f. After this, the Board only shall examine the Research Scholar to test the understanding of the subject matter of the thesis and also seek answers to the written queries by the Adjudicators in the Thesis Winners of: "Most Promising University of India 2020" "1" rank Among All Universities in Gujarat 2020 by Uni Rank"

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- Evaluation Reports, if any. The Research Scholar shall be required to produce all the documents, data and analysis in support of the research work presented in the Thesis.
- On completing the Viva-Voce, the Board shall submit a report to the g. Controller of Examination indicating clearly whether the performance of the Research Scholar was satisfactory and if so, giving specific recommendation for the award of the Ph.D. degree.
- h. In case, the performance of the Research Scholar 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.19.2 **Consolidated Report**

- (i) After successful completion of the Viva-Voce, the Viva-Voce Board shall prepare and forward the Consolidated Report, in the prescribed University's format along with duly corrected versions of the thesis in hard and the soft copies to the University.
- Then the Vice Chancellor shall issue a notification for the award of Ph.D. (ii)
- At this stage, there shall also be a certificate issued by the University and/or (iii) respective Research Centre that no arrears/dues is left on/by the Research Scholar.

Ph.D.19.3 Handling of Plagiarism issues

- The Vice Chancellor shall refer the matter to the Departmental Academic (i) Integrity Panel to investigate into plagiarism issues connected with the Ph.D. thesis submitted to the University, in the case of receipt of complaints either from the adjudicator(s), other individuals, academic community or any other source(s).
- (ii) The Departmental Academic Integrity Panel shall submit its findings within three months from the date of receipt of such report/complaint to the University's Institutional Academic Integrity Panel (IAIP) to further investigate into the issues of plagiarism.
- (iii) University's Institutional Academic Integrity Panel (IAIP) shall follow the University's Plagiarism policy and shall accordingly submit its report to the Vice Chancellor within forty five days of receiving such findings from the Departmental Academic Integrity Panel.
- The University can also take suomotu notice/cognizance of an act of (iv) plagiarism and initiate proceedings.

AWARD OF Ph.D. DEGREE Ph.D.20

Ph.D.20.1 **Degree Certificates**

Upon the approval by the BoG, the University shall issue a Ph.D. degree (i) certificate to the candidate certifying that the degree has been awarded in

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accordance with the "GTU Regulations - Governing the Degree of Doctor of Philosophy 2023".

- (ii) The University shall award the Ph.D. degree certificate to the candidate during the forthcoming Convocation.
- The University shall issue a provisional certificate certifying to the effect that (iii) the Research Scholar is found eligible for the award of PhD degree after successfully passing the Viva-Voce examination and obtaining approval of Vice Chancellor.
- (iv) The University shall hold the Non-exclusive license of all the Theses.

DEPOSITORY WITH UGC AND THE UNIVERSITY Ph.D.21

Ph.D.21.1 Submission to UGC and the University

- Following the successful completion of the evaluation process and (i) 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 for hosting the same on its Information and Library Network (abbreviated as INFLIBNET), accessible to all the Institutions / Universities.
- The University shall also maintain a repository/ digital repository of such Ph.D. (ii) theses in its Library and website.

Ph.D.22 **PROHIBITIONS**

Prohibition of Statutory Officers from registering to Ph.D. degree Ph.D.22.1

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.22.2 Prohibition of Research Scholars from Registering for any other degree

No Research Scholar registered under the Ph.D. programme 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.23 **REPEAL AND SAVINGS**

- (i) 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.
- (ii) The University shall issue such orders/instructions, and prescribe such format/procedure, as it may deem fit to implement the provisions of these Regulations.

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Ph.D.24 INTERPRETATION

- (i) Any question as to the interpretation of these Regulations shall be decided by the Vice Chancellor, whose decision shall be final and binding.
- (ii) 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.

Annexure I-

SI. No.	Percentage of Marks obtained in Postgraduate Degree Examination	Indicative letter Grade (following will be adopted by DRC/DRCs if the conversion formula adopted by the concerned University is not submitted by the Candidate)	Indicative CPI/CGPA (following will be adopted by DRC/DRCs if the conversion formula adopted by the concerned University is not submitted by the Candidate)*	Criteria for calculating marks for candidates who have been exempted from appearing in the entrance test under – Marks obtained in entrance test (having 70% weightage) Component 1 of the merit list
1	45% to 49.99%	D	5 to 5.4	25
2	50% to 54.99%	D+	5.5 to 5.9	30
3	55% to 59.99%	C-	6 to 6.4	35
4	60% to 64.99%	С	6.5 to 6.9	40
5	65% to 69.99%	C+	7 to 7.4	45
6	70% to 74.99%	B-	7.5 to 7.9	50
7	75% to 79.99%	В	8 to 8.4	55
8	80% to 84.99%	B+	8.5 to 8.9	60
9	85% to 89.99%	Α-	9 to 9.4	65
10	90% to 100%	A	9.5 and above	70

^{*} CPI/CGPA will be rounded to one digit after decimal point

Annexure II

Benefits for those full-time research scholars enrolled at GTU PG Schools (GSET, GSP, GSMS, SAST)

(i) Fellowship:

a. Fifteen Full-Time Research Scholar enrolled at Schools of the University will be paid a consolidated fellowship amount of INR 25,000 per month. All fellowships are subject to Government of India Income Tax Rules and related deductions, as applicable.

(ii) Contingency Grant:

- a. Contingency grant of INR for INR 20,000/- per annum can be availed by each Full-Time Research Scholars and shall lapse if un-utilized, at the end of each financial year.
- b. Contingency grants can be utilized for purchase of books, software, equipment, etc. with prior sanction of Research Supervisor and Head of Institution.

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Technical Education" ❖ "India's Most Trusted State University 2019 " ❖ "Outstanding University in West India 2019"

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ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક :૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

- c. The books, software, equipment etc. purchased out of the contingency grant will become the property of the School/Constituent College of the University, after completion of the Ph.D. programme.
- (iii) Contingency grants can be utilized for attending workshops / conferences /seminars etc. with prior approval
- (iv) Leaves:
 - a. Full-Time Research Scholars shall be entitled to avail a maximum of 30 days leave every vear.
 - b. Any kind of leave shall be sanctioned by the Head of the Institution.
- (v) All Full-Time Research Scholars, irrespective of the discipline, will be assigned 4-6 hours per week of teaching/research assistantship for conducting tutorial or laboratory work and evaluations, irrespective of their discipline and will be trained in teaching/education/pedagogy/ writing related to their chosen Ph.D. subject during their doctoral period.

Annexure-III

SYLLABUS FOR RESEARCH METHODOLOGY PAPER - I

This part is common to all the candidates and will cover topics related to General information and its interface with society to test the candidate's awareness and aptitude for scientific and quantitative reasoning. Questions would be so designed to judge the reasoning, creativity, analytical ability and research aptitude of a candidate.

I. Research Aptitude

- Research : Meaning , characteristics and types;
- Steps of research;
- Methods of research;
- Research Ethics;
- Paper, article, workshop, seminar, conference and symposium;

II. Reasoning (Including Mathematical)

- Number series; letter series; codes;
- Relationships; classification.

III. Logical Reasoning

- Understanding the structure of arguments;
- > Evaluating and distinguishing deductive and inductive reasoning;
- Verbal analogies: Word analogy-Applied analogy;
- > Reasoning Logical Diagrams :Simple diagrammatic relationship, multi-diagrammatic relationship;
- Venn diagram; Analytical Reasoning.

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IV. Data Interpretation

- Sources, acquisition and interpretation of data;
- Quantitative and qualitative data;
- Graphical representation and mapping of data

Annexure-IV

SUBJECT	TOPIC	Percentage Weightage
745	Introduction to Human anatomy and Physiology	
	Osseous system	
	Haemopoetic System	
	Lymph	
	Cardiovascular system	4
Human anatomy and	Respiratory system	
physiology	Digestive system	
	Nervous system	
	Urinary system	
	Endocrine system	
	Reproductive system	
	Sense organs	
	Skeletal muscles	
	Sports physiology	
	Basic principles of cell injury and adaptation	
	Inflammation	
	Diseases of Immunity	
	Cancer	
	Shock	
	Environmental and nutritional diseases	

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	Dethershorida and formation discourse		
	Pathophysiology of common diseases.		
	a. Parkinsonism		
	b. Schizophrenia c. Depression and mania	4	
	d. Hypertension,		
	e. Stroke (ischaemic and hemorrhage)		
Pathophysiology	f. Angina, CCF, Atherosclerosis, Myocardial		
r danophysiology	infarction		
	g. Diabetes Mellitus		
	h. Peptic ulcer and inflammatory bowel		
	diseases		
	i. Cirrhosis and Alcoholic liver diseases		
	j. Acute and chronic renal failure		
	k. Asthma and chronic obstructive airway		
	diseases		
67	Infectious diseases		
	General Pharmacology		
	Pharmacology of drugs acting on ANS		
	Pharmacology of drugs acting on		
	cardiovascular system		
	Pharmacology of drugs acting on Central		
- 2	Nervous System		
	Pharmacology of Drugs acting on Respiratory		
	tract		
	Pharmacology of Hormones and Hormone antagonists		
Pharmacology	Pharmacology of autocoids and their antagonists	10	
	Pharmacology of Drugs acting on Blood and		
	blood forming agents		
	Pharmacology of drugs acting on Renal		
	System		
	Chemotherapy		
	Immunopharmacology		
	Principles of Animal toxicology		
	The dynamic cell: The structures and functions		
	of the components of the cell		
	The Gene: Genome structure and function		
	RNA processing		
	Cardiovascular system		
	Respiratory system		
	Endocrine system		
	General prescribing guidelines for Paediatric,		
	Geriatric and Pregnant populations		
	Ophthalmology		

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	Introduction to rational drug use	
Pharmacotherapeutics	Infectious disease	
	Musculoskeletal disorders	25
	Renal system	25
	Oncology	
	Dermatology	
	Gastrointestinal system	
	Haematological system	
	Nervous system	
	Psychiatry disorders	
	Pain management	
1	Evidence Based Medicine	
	Community Pharmacy Management	
	Prescriptions	
	Inventory control in community pharmacy	
Community Pharmacy	Pharmaceutical care	
	Patient counselling	
	Patient medication adherence	
	Health screening services	
	OTC Medication	
	Health Education	
	Responding to symptoms of minor ailments	
900	Essential drug concept and rational drug use	
	Code of ethics for community pharmacist	
	Hospital - its Organisation and functions	
	Hospital pharmacy-Organisation and management	
	The Budget – Preparation and implementation	
	Hospital drug policy	
Hospital Pharmacy	Hospital pharmacy services	
	Manufacture of Pharmaceutical preparations	1
	Continuing professional development programs	
	Radio Pharmaceuticals – Handling and packaging	
	Professional Relations and practices of hospital pharmacist	
	Definitions, development and scope of clinical pharmacy	

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	Introduction to daily activities of a clinical pharmacist	
	Patient data analysis	
	Clinical laboratory tests used in the evaluation of disease states, and interpretation of test results	
Clinical Pharmacy	Drug & Poison information	
	Pharmacovigilance	
	Communication skills	
	Pharmaceutical care concepts	
	Critical evaluation of biomedical literature	
	Medication errors	
,,C	General principles involved in the management of poisoning	
	Antidotes and the clinical applications	
	Supportive care in clinical Toxicology	
	Gut Decontamination.	
	Elimination Enhancement	
	Toxicokinetics	
Clinical Toxicology	Clinical symptoms and management of acute poisoning with the following agents: – a) Pesticide poisoning: organophosphorous compounds, carbamates, organochlorines,pyrethroids. b) Opiates overdose. c) Antidepressants d) Barbiturates and benzodiazepines. e) Alcohol: ethanol, methanol. f) Paracetamol and salicylates. g) Non-steroidal anti-inflammatory drugs. h) Hydrocarbons: Petroleum products and PEG. i) Caustics: inorganic acids and alkali. j) Radiation poisoning Clinical symptoms and management of chronic poisoning with the following agents:	4
	Heavymetals: Arsenic, Lead, Mercury, Iron, Copper Venomous snake bites	
	Plants poisoning	
	Food poisonings	
	Envenomations	
	Substance abuse	
	Drug development process	
	Clinical development of drug	
	Role and responsibilities of clinical trial personnel as per ICH- GCP	

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Clinical Research	Designing of clinical study documents	
	Informed consent Process.	
	Data management and its components	
	Safety monitoring in clinical trials.	
	Introduction to Pharmacoepidemiology	
Pharmacoepidemiology and	Measurement of outcomes in	12
pharmacoeconomics	pharmacoepidemiology	12
	Concept of risk in pharmacoepidemiology	
	Pharmacoepidemiological methods	
	Sources of data for pharmacoepidemiological studies	
	Selected special applications of	
	pharmacoepidemiology	
	Phrmacoeconomics	
	Pharmacoeconomic evaluation	
	Applications of Pharmacoeconomics	
	Introduction to Clinical pharmacokinetics	
	Design of dosage regimens	
Clinical Pharmacokinetic &	Pharmacokinetics of Drug Interaction	
Pharmacotherapeutic Drug Monitoring	Therapeutic Drug monitoring	
	Dosage adjustment in Renal and hepatic Disease	
	Population Pharmacokinetics	
	Pharmacogenetics	
	Types of data distribution	
	Meausres describing the central tendency distributions	
Biostatistics	Measurement of the spread of data: 1) Data Graphics 2) Basics of testing hypothesis 3) Statistical methods in Epidemiology 4) Computer application in Pharamcy	
	Introduction to biochemistry	
	Enzymes	
	Carbohydrate metabolism	
	Lipid metabolism	
Medicinal Biochemistry	Biological oxidation	
riculaniai Diodnomba y	Protein and amino acid metabolism	
	Nucleic acid metabolism	
	Clinical chemistry	
	Electrolytes	
	Structures and Physical properties organic compounds	
	Nomenclature of organic compounds	

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	Free radicals chain reactions of alkane	
	Alicyclic compounds	15
Pharmaceutical Organic chemistry	Nuclophilic aliphatic substitution mechanism	
	Dehydro halogenation of alkyl halides	
	Electrophillic and free radicals addition	
	Carbon-carbon double bond as substituents	
	Theory of resonance	
	Elecrophilic aromatic substitution	
	Nucleophilic addition reaction	#:
	Nucleophilic aromatic substitution	
	LIOLUGIA.	
	Marie Land	
	Oxidation reduction reaction.	
	Study of the following official compounds-	
	preparation, test for purity, assay and medicinal uses of Chlorbutol, Dimercaprol, Glyceryl trinitrate, Urea, Ethylene diamine dihyrate, Vanillin, Paraldehyde, Ethylene chloride, Lactic acid, Tartaric acid, citric acid, salicylic acid, aspirin, methyl salicylate, ethyl benzoate, benzyl benzoate, dimethyl pthalate, sodium lauryl sulphate, saccharin sodium, mephensin.	
	Errors	
	Volumetric analysis (Titrimetric analysis)	
	Gravimetric analysis	
	Impurities in Pharmaceuticals	
	Gases and Vapors	
Pharmacutical Inorganic chemistry	Acidifying agents	
	Antacids	
	Cathartics	
	Majorintra and extra-cellularelectrolytes	
	Essential and trace elements:	
	Antimicrobials	
	Pharmaceutical Aids used in pharmaceutical	
	industry	
	Dentalproducts	
	Miscellaneous agents	
	InorganicRadiopharmaceuticals	
	Quality Assurance and Quality Control	
Pharmaceutical Analysis	3 1 2	
	Electrometric Methods	

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	Spectroscopy	
	Modern concept of rational drug design	
Medicinal Chemistry	Anti-infective agents	
	Sulphonamides and sulphones	
	Antimalarials	
	Antibiotics	
	Antineoplastic agents	
	Cardiovascular agents	
	Hypoglycemic agents	
	Thyroid and Antithyroid agents	
	Diureties	
	Diagnostic agents	
	Steroidal Hormones and Adrenocorticoids	
270	Introduction to Dosage form	
	Development of Indian Pharmacopoeias & Introduction to other pharmacopoeias such as BP, USP. European Phrmacopoeias	
Pharmaceutics	Powders and Granules	
	Monophasic Dosage forms	
	Biphasic Dosage forms	
	Suppositories and pessaries .	
	Galenicals	
	Pharmaceutical calculations.	
	Surgical aids	
	Incompatibilities	
	Microbes	
	Nutritional requirements, growth and cultivation of bacteria and virus.	
	Isolation and identification of bacteria	
Pharmaceutical Microbiology	Sterilization	
- 3.	Disinfectants	
	Immunology	
	Diagnostic tests	
	Microbial culture sensitivity Testing	
	Study of infectious diseases	
	Pharmaceutical Legislations	
	Principle and Significance of professional ethics	12
	Drugs and Cosmetics Act, 1940,and its rules 1945 Pharmacy Act –1948	
	Medicinal and Toilet Preparation Act −1955.	

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PHARMACEUTICAL	Narcotic Drugs and Psychotropic substances Act-1985 and Rules.	
JURISPRUDENCE	Study of Salient Features of Drugs and magic remedies Act and its rules	
	Study of essential Commodities Act Relevant	
	to drugs price control Order	
	Drug Price control Order & National Drug Policy (Current).	
	Prevention Of Cruelty to animals Act-1960	
	Patents & design Act-1970	
	Brief study of prescription and Non- prescription Products	
	Various Pharmaceutical dosage forms	
	Tablets	
Pharmaceutical Formulation	Capsules	
	Liquid orals	
	Parenterals	
	Ophthalmic preparations (Semi – Solids)	
	Controlled and novel Drug delivery systems	
FeC	Introduction to Biopharmaceutics	
	Introduction to Pharmacokinetics	
Biopharmaceutics & Pharmacokinetic	One compartment open model	
	Multicompartment models	
	Multiple – Dosage Regimens	
	Nonlinear Pharmacokinetics	
	Noncompartmental Pharmacokinetics	
	Bioavailability and Bioequivalence	
	Definition, history and scope of Pharmacognosy	
Pharmacognosy &	Classification of crude drugs.	
	Cultivation, collection, processing and storage of crude drugs.	
	Detailed method of cultivation of crude drugs	
	Study of cell wall constituents and cell inclusions.	
	Microscopical and powder microscopical study of crude drugs	
Phytopharmaceuticals	Study of natural pesticides.	3
	Detailed study of various cell constituents	
	Carbohydrates and related products.	
	Detailed study carbohydrates containing drugs.	

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	100
Different methods of adulteration of crude drugs.	
Study of plants fibers used in surgical dressings and related products.	
Definition, classification, chemistry and method of analysis of protein.	
Detailed study of oils.	
Definition sources, method extraction, chemistry and method of analysis of lipids.	

Guidelines for preparation of Synopsis

- The Research Scholar has to submit 4 copies of the synopsis of the proposed thesis along with a soft copy of the Synopsis & Publications in PDF on a CD to the Controller of Examination, Gujarat Technological University through the Supervisor.
- 2 Certificate for Fees must be submitted along with the synopsis as per the format of the University.
- 3 The synopsis shall not be longer than twelve to fifteen pages, one and a half line spaced, A-4 size pages in a font size of 12 pt. and font style of Times New Roman, excluding the copies of papers published and the list of references. The synopsis shall be in English and should include the following components:
 - Title of the thesis and abstract
 - Brief description on the state of the art of the research topic
 - Definition of the Problem
 - Objective and Scope of work d.
 - Original contribution by the thesis. e.
 - f. Methodology of Research, Results / Comparisons
 - Achievements with respect to objectives g.
 - h. Conclusion
 - References i.
- The synopsis will not be accepted if it does not fulfil the above requirements.
- The synopsis will be uploaded on the University's website.

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ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક :૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Guidelines for Preparation of Thesis

Submission for Evaluation (Initial Submission) 2 (two) soft bound (spiral) copies of the *Thesis* have to be submitted within 6 months from the date of submission of the synopsis, the Research Scholar will submit a soft copy of the thesis in PDF on CD/DVD to the Controller of Examination, Gujarat Technological University through Research Supervisor, as part of green initiative

Submission for Record (Final Submission) If the *Thesis* is recommended for final submission, the research scholar will have to submit hard bound copies as per the following to the Controller of Examination, Gujarat Technological University through Supervisor after incorporation of corrections recommended by the examiners.

Documents to be submitted at the time of Public Viva Voce Examination are as follows:

- Two CD/DVDs shall be submitted as follows:
 - 1) one CD/ DVD including Metadata Sheet & Splitted Thesis (kindly refer to http://shodhganga.inflibnet.ac.in for the format)
 - 2) one CD/ DVD including Full Thesis & Synopsis
- Final Hard Bound copies as per below format
 - 1) University Library
 - 2) Copies to the Supervisor(s) / Co-supervisor(s).
 - 3) Copy to the Institute where the candidate has performed research work.
- PhD Viva Voce Report
- Undertaking for Final Submission of Thesis (as per format given in the Guidelines available on the website)

Presentation Sequence

Fly page (2 Blank Pages)

Cover and Title Page

Copyright (overleaf Title page)

Declaration Page

Certificate(s)

Course-work Completion Certificate

Originality Report Certificate

Non Exclusive License Certificate

Thesis Approval Form

Abstract

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Head office: GTU Campus, Nr. Visat Three Road, Visat-Gandhinagar Road, Chandkheda, Ahmedabad - 382 424. Gujarat, India.

Phone .:- +91 079-23267521/570

e-mail: info@gtu.ac.in Website: www.gtu.ac.in GTU-Ph.D. Regulations, 2023

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Acknowledgement and / or Dedication Page (Optional)

Table of Contents

List of abbreviations (Optional)

List of Symbols

List of Figures

List of Tables

List of Appendices

Thesis Body (Chapters)

List of References/Bibliography

List of Publications

Fly Pages (2 Blank Pages)

Cover and Title Pages:

The general format of a sample title/cover page has been given at the end of this document. Ingeneral, the cover/title page shall contain the following details:

- Full thesis title in (18 points) size font properly centered and positioned at the top portion.
- Full name of the Research Scholar in 16 point font size properly centered at the middle of the page. In case of title page and cover page, this shall be followed by the name(s) of the supervisor(s) in a separate line. In case if there is an appointed Co-Supervisor/ Joint-Supervisor then his/her name may be published. It may be noted that only one name of either the Co-Supervisor/ Joint Supervisor can be published on the Cover & Title Page.
- A 30 mm diameter GTU emblem followed by the full name of the University and the year of submission, each in a separate line properly centered with 18 point font size and located at the bottom of the page shall be placed.
- The cover shall have printing on its side the name of the Research Scholar, thesis title and year of submission in this order. If required, short name, thesis title etc. and reduced font size may be used for this purpose.
- All lettering in the cover page shall be embossed in Golden colour.
- A monochrome (black text on white paper) print out is to be used for the title page.

On the back side of the title page the copy right statement should be placed at the center of the page.

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Declaration: Signed declaration sheet is required to be included in the thesis.

Certificate(s): Signed certificates is required to be included in the thesis

Thesis Approval Form: As per the given format

Abstract: The abstract should be a concise description of the problem(s) addressed, method of solving, findings, and conclusions all in one place. As such, it shall highlight the important features of the thesis. It should be able to help the readers to quickly ascertain the purpose of the thesis. An abstract is a self-contained, short, and powerful statement that describes the entire work. It must be self-contained without any references.

Acknowledgement and / or Dedication (Optional): This part(s) of the thesis has no specific format. If the Research Scholar desires to acknowledge his / her thesis, he / she may include the same.

Table of Contents: This section of the thesis shall list all materials that follow it. It shall enlist titles of the chapters, sections, and subsections including reference and appendices (if any) using decimal notations (as in text), with corresponding page numbers against them flushed to the right.

List of abbreviations (Optional): If a large number of abbreviations are used in the thesis, which may be unfamiliar to a reader, a list of abbreviations may be useful.

List of Symbols, Figures & Tables, etc.: Symbols, Figures & Table etc. shall be listed separately. List of symbols typically shall contain two columns – symbol and brief description / definition. Similarly, the list of Figures / Tables shall also contain two columns – Figure / Table no. and its caption.

List of Appendices: Appendices may include the formulas, diagrams, protocols or any similar data that are not contained in the thesis body. The number can be given as A-1, A-2.... and listed as such in the list of Appendices.

Thesis Body: The thesis shall be organized in a number of chapters, starting with a general introduction leading to your work followed by literature review and ending with a general discussion and conclusion of your work. A thesis must be an integrated whole of the research work and each of the other chapter should be presented in a coherent and logical way. As such each of the other chapters shall have precise title reflecting content best. A chapter can be subdivided into sections,

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sub-sections, etc. and so on as to present the content discretely with due emphasis. The content/body of the final hard bound/ soft bound (spiral) copies of the thesis can be printed on both the side of pages with Page size, Margins, Text Font, Text Size, and Line Spacing as mentioned in the Thesis Format Section of the Guideline.

Layout of Chapter:

Introduction: Title of the first chapter shall be the Introduction. It shall start with a brief history of the reported work. It shall justify the pros and cons of the present problems posed, and set the aim and scope of his/her work which shall mitigate the present problems. It may end up with highlights of the significant contributions of the present work.

Literature Review: Second chapter shall be on Review of the Literature. However, its title can vary from author to author without losing its true spirit. It shall present a review of the state of the work till date which naturally leads to the present topic of investigation. While there is no end to present such a review, the extent and emphasis should be limited to the extent which is relevant to the nature of investigation only.

Report on the Present Research: The work, conclusion and contributions from the research are presented in this portion of the thesis in a number of chapters. The exact structure in these chapters will depend on the nature of research (theoretical or experimental) carried out. However, the following general guidelines shall be followed:

- When reporting theoretical work that is not original, you will usually need to include sufficient material to allow the reader to understand the arguments used and their physical bases. But do not reproduce pages of text that the reader can find in a standard text book; onlyrefer such works and concentrate on the physical arguments leading to your theory. Furthermore, do not include any theory that you are not going to relate to the work you have done.
- Clearly describe the experimental (if any) setup, procedure/technique adopted, methodologies developed and adopted.

Results and Discussions: Whether the work is experimental or theoretical, this is a vital part of the thesis. Depending upon the nature of investigations, a separate chapter (last but one) with title "Results and Discussions" may be presented for summarizing your results and highlighting their implications. Typically, a thesis on the findings on a single but broader aspect of a composite problem shall contain this chapter. For distributed findings, however, this can be presented as the subsections

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of the relevant chapters towards the end.

Conclusions, Major Contributions and Scope of Further Work: This will be the last chapter of the thesis. A brief summary of the entire work carried out shall form the first paragraph. Conclusions derived from the presented work and its results shall be clearly specified. Conclusion should relate only to your own work. Any generalized, known outcomes should not be mentioned.

Your thesis must highlight the practical implications of your work to the society, in the form of major contributions. Finally, all possible future avenues to continue where you have stopped may be mentioned under future work.

Reference Citation: All cited literature must appear in the list of references and numbered sequentially as they are referred in the text of the thesis in standard format of referencing APA Style. All particular works consulted but not specifically cited should be listed as Bibliography which shall appear after the References. Cited materials shall be listed chapter-wise and at the end of the concerned chapter. A citation repeated in more than one chapter shall be given same number.

Publications & Patents by the Candidate (if any): Articles, Patents (filed / granted), technical notes, book chapters etc. published by the candidate from his/her research work may be separately listed with same format used for listing the references at the end of the thesis. Such publications shall, however, not be cited in the thesis.

Thesis Format:

Paper Specification

Quality: Thesis shall be printed on both sides on 85 gsm white bond paper only.

Paper Size and Margins

- The paper shall be of A4 size.
- Top and bottom margins should be 25 mm, right margin should be 20 mm, and the left margin should be 35 mm for both textual and non-textual (figures, tables, etc.) pages. The header footer should be 10 mm each.
- Minimum space below a sub-section head (title) at the bottom of the page should have atleast 2 full lines; otherwise it should begin on the next page.

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Text Font, Text Size, and Line Spacing

Font: Throughout the thesis, only the standard Times New Roman fonts shall be used.

Initial Submission: The general text of the manuscript shall be 1.5 lines spacing with a font size of 12 points. However, tables, quotations, footnotes, captions, and referencing materials shall be single spacing with 10 point text size.

Final Submission: The general text of the manuscript shall be in 1.5 line spacing with font size sameas in the initial submission.

Pagination: Beginning with the first page of chapter 1 (Introduction) of the thesis, all pages shall be numbered consecutively using Arabic numerals in 12 point fonts. Page numbers of all the pages where a chapter begins shall appear at the center of the footer. Page numbers of all the pages, startingfrom the title page to the page before the chapter 1 starting page, shall be lower case Roman numerals (e.g. i, ii, iii etc.), placed at the center of footer. However, the page number on the title pageshall not be printed.

Header Format: The header shall contain the chapter title on the even numbered pages and section title on the odd numbered pages. The section title shall start from the following relevant page whereit appeared first.

Paragraph Format: The paragraph of each section and subsection shall start without any indentation. A vertical space of around 12 points should be left between the section title line and the first paragraph of each section and subsections. All the paragraphs in the thesis shall be in single column format with full justification. A paragraph should normally comprise more than one line. A single line paragraph shall not be placed at the top or bottom of a page.

Chapter(s): A chapter always begins on a fresh page. The capitalized word "CHAPTER" with a font size of 20 should begin with an additional top margin of 30 mm (total 50 mm) followed by chapter no. with center aligned. Next, place the chapter heading with 20 font size and leaving around 18 points vertical spaces and center justified. Leave around 36 points vertical space after chapter heading. In the chapter heading, capitalize the first letter all the words. Use boldface letters and numbers only.

Sections and Subsections: A chapter is usually needed to be divided into sections, subsections,

etc. So as to present concepts with different aspects separately. As mentioned above, a vertical Winners of: "Most Promising University of India 2020" ❖ "1strank Among All Universities in Gujarat 2020 by Uni Rank" ❖ "1st Rank in Gujarat State Institutional Ratings Framework (GSIRF) 2019" ❖ "National Leadership Excellence Award 2019 in Technical Education"❖ "India's Most Trusted State University 2019 " ❖ "Outstanding University in West India 2019"



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space of around 36 point should be left between the chapter heading and the title of the first section of every chapter. For all subsequent sections/subsections, leave a vertical space of around 24 points before the section/subsection headings. A vertical space of around 12 points should always be left between the first line and the title of every section/subsection. Sections and subsections shall be numbed chapter wise and consecutively. For example, say the first and second sections in chapter 5 shall be numbered as 5.1 and 5.2, respectively. Likewise, the third subsections of sections 1 and 2 in a chapter 4 shall be numbered as 4.1.3 and 4.2.3, respectively. Same style as in chapter heading but with font size of 14 and 12 for section and subsections, respectively, shall be followed for their titles, with a gap of around six characters between their numbers. Use boldface letters and numbers and the entire writable horizontal space to write their numbers and titles. Sub-subsection of a subsection should not be numbered. The title of such topic should all be boldface capitalized letter followed by a colon (:) the content of the same should start after the colon leaving a single character. Leave a space of around 12 points before a sub-subsection. Further division of topics is not recommended.

Tables, figures, and Equations:

- All tables and figures should be printed on the same papers used to print the text.
- As far as possible, tables and figures are presented in portrait style.
- All tables, figures, and equations must be numbered sequentially and chapter-wise using Arabic numerals. It must reflect the chapter number also, e.g. 2.1, 6.25 etc. Use boldface capital letters and numbers (separated by a single space) to number a figure and table, e.g., **FIGURE 2.1**, **TABLE 3.2**. While a caption (figure number) should be placed below the figure, a caption (table number) should be placed above the table. A figure/table should be separated from its number by 1.5 lines. Equations shall form a separate line, having 6 points paragraph separation above and below, with equation numbers within parenthesis and flushedto the right.
- When a figure or table is referred to in the body of the text, the first letter of the word needs to be capitalized with appropriate abbreviations as, for instance, Table 2.17 and Fig. 3.24.
- When an equation is referred to in the text and appears as the first word of the sentence, it needs to be capitalized without any abbreviation as, for instance, Equation (2.5). In all other cases of referring an equation, simply write the equation number in parenthesis as, for example, (2.5).

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- All figures and tables shall be appropriately captioned using sentence style format and immediately below the corresponding numbers with an additional space of 6 points in between. If more than one line is needed for the caption they should be separated with singleline spacing. A caption needs to be justified with the table/figure borders.
- Font sizes of legends, axis labels etc. of figures should be sufficiently large so that even after compression of the figure, they are legible enough (having same sizes as in the general text).
- Short (less than around half of the writable page area) figures and tables should be presentedimmediately following their first mention in the text and preferably on the upper portion (before the text) of the following page or bottom portion of the same page, but separated by single lines spacing from the text. If they are placed in between then they should be separated by single lines spacing from both above and below. On the other hand, large figures and tables should be presented on page(s) following their first mention in the text.
- Images, Photographs, etc. must be scanned in resolution at least 600 dpi

Binding: The examination copies of the thesis may be soft (spiral) or paperback cover (soft cover) bound. A paperback cover means a thick laminated covers (front and back). However, the finally corrected and accepted copies of thesis need to be submitted in hard bound only with the black colour.

Two separate additional white sheets shall be put at the beginning and end of the thesis (after and before the front and back cover pages, respectively).

Concluding Remarks: This guide lists only the salient requirements for preparing the thesis. Over and above, a thesis should be reader-friendly in its presentation. Several aspects need a more elaborations, which are not included here. Wherever confusion arises, Research Scholars should follow appropriate guidelines from a standard literature from his/her research area. However, a uniform style and format must be followed throughout the entire thesis.

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Instructions for filling online Ph.D. Application through SamartheGov Portal

- Candidates should submit only one application form with valid details. Do not submit dummy
 application details with same transaction number, as it will be treated "multiple applications"
 and all such applications will be rejected.
- 2. The applicant must ensure their eligibility for Ph.D. admission 2023-24 in respect of qualifications and other requisite criteria and only then apply.
- 3. Ph.D. Admissions are not offered /advertised in those branches/disciplines where NO seats/ supervisors are available.
- 4. Online application form can be filled from University's website https://gtuadm.samarth.edu.in/ after ensuring eligibility and other requisite criteria as published in the Prospectus available on website by the candidate.
- 5. Deposit the requisite Application fee of **INR 1500/-** for General and **INR 1250/-** for SC/ST/SEBC/Differently-Abled Category/ EWS Category through **BILLDESK**.
- 6. Application fee is not refundable in any case.
- 7. Candidates should fill the online application with the same name as that mention in Class X Certificate.
- 8. All Candidates eligible for the entrance test should bring a Photo ID card bearing the same name as that mentioned in the 10th Class certificate at the time of Entrance Examination.
- 9. In case where there is a change in the name (due to marriage etc.) the requisite 10th Class certificate should be self-attested and should be produced/submitted at the Entrance Examination Centre.
- 10. Candidates should carry a valid original ID proof (Aadhar, PAN, Driving Licence) for appearing for the examination.
- 11. Before applying Online, a candidate should ensure availability of following details: scanned copy of the passport size photo, signature, Category Certificate (SC/ST/SEBC/EWS issued as per the standard Government of Gujarat Format (if applicable), Income Certificate as per the standard Government of Gujarat Format (if applicable), Class X (Scan both marksheet and Certificate in a single file and then upload), Class XII (Scan both marksheet and Certificate in a single file and then upload), Graduation (Scan both marksheet and Certificate in a single file and then upload), respective Research Fellowship Certificate (if applicable).
- 12. Candidates appearing in the Final year/semester Masters /Post graduation Degree examination should upload the latest first year/third semester mark sheet.
- 13. All the uploaded document should be between 10 KB-500KB
- 14. A candidate, who has applied informally and sent his / her bio-data / academic vitae to the University earlier, must apply again following the due procedures.
- 15. Application or CV / Bio-data send through e-mail, post etc. for admission in Ph.D. programme will not be considered under any circumstances.
- 16. After successfully submitting the application online, candidate will be assigned a system generated Application/ Form Number which should be noted for all future reference.
- 17. The candidate should take a print out of the Application Form (on A4 size paper), which has be to duly self-attested. All self-attested requisite certificates and copy of Payment Receipt, etc. must be produced at the time of Admission only.
- 18. Application filled after last date will not be entertained and no further correspondence will be made in this regard.
- University will not be responsible for any delay at any stage. No correspondence / queries will be entertained regarding delays, conduct and result of interview and reasons for not being called.

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- 20. The University reserves the right not to admit any candidate in any discipline if none is found suitable / eligible by the Expert / Interview committee.
- 21. The University reserves the right to alter / insert any corrections / additions in the advertisement / website /prospectus etc. in the event of thing is observed.
- 22. The decision of the University in all matters will be final and binding. No correspondence / interim enquiry will be entertained from the candidates in connection with the process of selection / interview.
- 23. No accommodation / travel allowance etc. will be provided by the University to the Candidates.
- 24. Candidates are advised to refer the University's website regularly for any updates etc.
- 25. Candidates seeking exemption from Entrance Exam should also submit their application online. Failing to submitting/applying online for Ph.D. admission, will not be considered for further process of admission and such requests would be summarily rejected.
- 26. Candidates should note that their candidature is strictly provisional.
- 27. Candidates should strictly adhere to the procedure of submitting Online Application form, failing which; it will lead to summary rejection of application.
- 28. Mode of payment of fee is through BILL DESK only. Fee submitted through any other mode will not be accepted. Fee once paid will neither be adjusted for any subsequent examination nor refunded under any circumstances.
- 29. Application submitted in any other format will be summarily rejected and no correspondence, in this regard, will be entertained. Hence, the candidates are advised in their own interest to apply early enough to ensure timely submission of their applications on or before the closing date & time.
- 30. No correspondence will be entertained for any matter for which last date has expired.

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ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

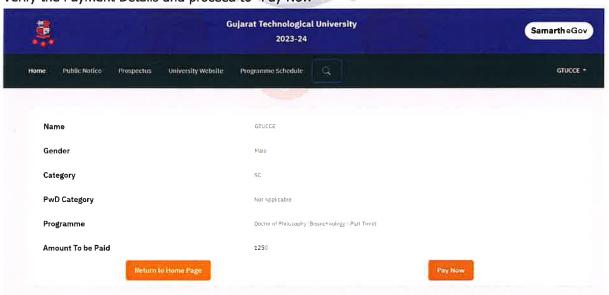
(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક :૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Step-wise Instructions for submitting the Online Application fee

1) Verify the Details by Clicking on the Checkboxes, then click on **"Payment Gateway BILLDESK"** to proceed for Payment. (Please check amount to be paid before making payment)

Programme	Doctor of Philosophy (Biorechnology - Part Time)	
Amount To be Paid	1250	
VERIFY THE DETAILS BY CLICKI	G ON THE CHECKBOXES	
☑ My Name is <u>GTL CCE</u> as per the Xth !	aiksheet/Cartificate	
My Date of Birth is <u>6. January 2010</u> :	s per the Xth Mackshei t/Certificate	
✓ My Category is SQ.		
☑ My Gender is <u>Male</u> :		
✓ My Mother name is Ushaben		
☑ Father's r Guardian's Name Hasmuk		
My arloress for correspondence is co	rect, which is <u>lantanagar, Ahmedahad, Ahmedahad, Gujarat_332424, I</u>	India
I have rechecked all the information	n the application form and upload fields	
	er related information about the admission.	
	ment made in the application are true, complete and correct to the best	
	urnished by me is found to be haise/incorrect/incomplete or it riam found	
	o be summarily rejected/cancelled "Additionally undertaking for studen	
	ereby undertake to produce the proof of having successfully qualified in	in the final qualifying examination with requisite percentag
of marks it failing, I shall forthwith vac-	te the seat, and shall have no claim for refund of fees already paid."	

2) Verify the Payment Details and proceed to "Pay Now"



Winners of: "Most Promising University of India 2020" ❖ "1strank Among All Universities in Gujarat 2020 by Uni Rank" ❖ "1st Rank in Gujarat State Institutional Ratings Framework (GSIRF) 2019" ❖ "National Leadership Excellence Award 2019 in Technical Education" ❖ "India's Most Trusted State University 2019 " ❖ "Outstanding University in West India 2019"

Head office: GTU Campus, Nr. Visat Three Road, Visat-Gandhinagar Road, Chandkheda, Ahmedabad - 382 424. Gujarat, India.

Phone .:- +91 079-23267521/570

e-mail: info@gtu.ac.in Website: www.gtu.ac.in GTU-Ph.D. Regulations, 2023

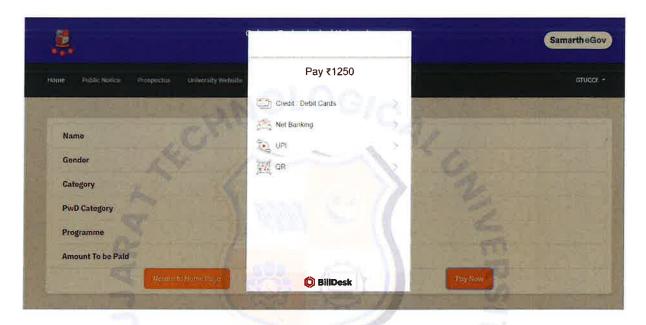


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3) Complete the Payment Process by selecting any one Payment mode through Bill Desk.



4) After successful payment, Insert payment details in the application form and submit the form. Take printout of the application. Keep the print with you for further reference.

Registrar

Winners of: "Most Promising University of India 2020" ❖ "1st rank Among All Universities in Gujarat 2020 by Uni Rank"
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