

THE ICT UNIVERSITY DOCTOR OF PHILOSOPHY RULES 2015

O38 Ordinance relating to the Award of the Degree of Doctor of Philosophy (Ph.D.)

Preamble

The Doctor of Philosophy (Ph.D.) is the highest academic degree and it signifies that the holder has carried out a substantial piece of original research work which has made a distinctive contribution to the advancement of the existing knowledge of the subject, and thus the holder is admitted to the community of scholars in the discipline. Further, it also signifies that the piece of research has been carried out by the holder under the supervision of a recognized academic supervisor, in an appropriate research environment, for a prescribed period of time.

The Ph.D. training is an advanced training in research aimed at developing a candidate to have profound respect for truth and have integrity, to formulate viable research problems and initiate research, to use contemporary knowledge and methodologies to initiate and solve research problems, to evaluate and critically review the existing literature in the given area, to understand the relevant norms and perspectives in the discipline, effectively disseminate the results of research, to cooperate with and respect peers and their contributions, to know the ethical norms in research, to handle data using appropriate technologies, and to understand the value of the research in the societal, national, and international contexts including IPR issues and commercialization.

The degree is conferred primarily in recognition of breadth of scholarship, depth of research, and capability to investigate problems independently and efficiently. In addition the candidate must have acquired good communication skills towards clear and forceful self-expression in both oral and written English. This should be reflected in the presentation of the work in the thesis and presenting the same in an open defense.

This ordinance has been made in exercise of the powers conferred on the Board of Management to institute degrees in the Universities and also in view to enhance the standard of research and maintain high standards of the Ph.D. programme.

This Ordinance has the following references

- (i) All relevant Ordinances, Regulations, and Rules of the Institute
- (ii) UGC Regulations 2009 of Minimum Standards and Procedures for Award of PhD

These Ordinance, Regulations and Rules may collectively be called as “The ICT University Doctor of Philosophy Rules 2013”

Definitions:

In the Ordinance and Regulations relating to the Degree of Ph.D. unless the context otherwise requires

- (i) “Authorities” means authorities like Board of Management, Academic Council, Post Graduate Programme Committee, and other authorities as defined in the Statutes of the Institute.
- (ii) The “Code of Ethics” and “Code of Conduct” refer to the “Code of Ethics” and “Code of Conduct” of the Institute as approved by the Board of Management.
- (iii) “Convocation” means a ceremonial assembly of the University, normally held for conferring Degrees and other Awards to the eligible candidates.
- (iv) “Government” means the Central Government or the Government of Maharashtra as the case may be.
- (v) “PGPC” means Post-Graduate Programmes Committee of the Institute of Chemical Technology.
- (vi) “Ph.D.” means Doctor of Philosophy.
- (vii) “R.C.” or “Research Committee” means the Research Committee of the respective subject constituted as per the rules.
- (viii) “Residency period” means the prescribed period over which a Ph.D. candidate shall be required to be present in the University.
- (ix) “The Thesis” refers to the thesis submitted by a Ph.D. student for the degree of Doctor of Philosophy.
- (x) “UGC” means University Grants Commission, New Delhi.
- (xi) “The University” or “the Institute” or “ICT” means Institute of Chemical Technology, Matunga, Mumbai.
- (xii) “The Vice-Chancellor” or “V.C.” means the vice-Chancellor of the Institute of Chemical Technology.
- (xiii) The words denoting singular shall imply plural wherever relevant or vice versa.
- (xiv) The words used denoting masculine gender, shall also include the feminine gender except where specifically provided otherwise.

1. Ph.D. degree is not awarded as an *ad eundem* degree.

2. A candidate may be conferred the Ph.D. degree subject to the following conditions.
 - (a) the eligibility condition is satisfied;
 - (b) the candidate has fulfilled the requirements of the Ph.D. entrance test and the interview(Which ever applicable);
 - (c) the candidate has completed the prescribed course work successfully;
 - (d) the candidate has published at least one research paper in a refereed and cited research journal before submission of thesis;
 - (e) the candidate has kept all terms by paying the prescribed fees and is regular in attendance, as per the norms of the institute;
 - (f) the candidate has presented a colloquium before submission of synopsis;
 - (g) the candidate has submitted a thesis based on the research work carried out under the supervision of one or more recognised guides and the thesis has been recommended for the award of the PhD degree by all the referees;
 - (h) The candidate has successfully defended his thesis in the (Open defense).
3. Admission to the qualifying degree shall be a condition precedent to the award of the Ph.D. degree.
4. Doctor of Philosophy Programmes in the University are available in the disciplines and subjects as prescribed by the regulations. The disciplines shall be Science, Engineering, Pharmacy and Technology.

5. Admission to the Ph.D. programme

- (a) Admission to all the Ph.D. programmes shall be done against advertisement, unless otherwise specified.
- (b) Eligibility criteria for admission to the PhD programmes shall be as per the respective regulations.
- (c) The admission procedures for admitting the eligible candidates for the Ph.D. programmes shall be as per the regulations, through a **selection procedure** involving **Ph.D. Eligibility Test** followed by **Interview**. At the time of interview a Ph.D. candidate is expected to discuss his research interest/area.

- (d) The candidates selected through the Departmental selection procedure shall be given provisional admission after following the prescribed procedure.
- (e) No candidate shall normally be permitted to register for a Ph.D. programme in a Faculty/discipline/subject different from the one in which he has obtained his Bachelor's and Master's degree, i.e. as against the eligibility criteria given in the respective regulations, except as provided in Sub-clause 5(f).
- (f) When a candidate desires to register for PhD degree in a faculty/discipline different from the one in which he has obtained his Bachelor's or Master's degree, and does not fulfil the respective subject criteria of eligibility, shall be permitted to do so through the procedure laid down by the regulation.
- (g) A candidate admitted to a Ph.D. programme through a prescribed procedure shall be deemed to be registered for the Ph.D. programme on the date of admission.

6. Annual readmission

- (a) All research students in residence and whose registration is still in force are required to continue their registration in person each year on stipulated date by taking readmission as per the rules.
- (b) The readmission is subject to satisfactory progress on the research topic and recommendation to that effect from the Research Progress Review Committee (RPRC).
- (c) The readmission in absentia shall be granted by Dean AP on a written request and supported by the guide and forwarded through the Head of Department.

7. Research Progress Review Committee (RPRC)

- (a) Within 3 months from the date of admission of a student for Ph.D. degree the Departmental Council shall constitute a RPRC for the student.
- (b) The constitution of the RPRC shall be: (i) The respective research guide. (ii) One senior faculty member of the respective Department (iii) One external expert in the field. The Chairman shall be the member at (ii).
- (c) The RPRC shall meet at least once in a year, before the readmission of the student, to monitor the progress of the student and recommend for readmission. Provided that for a student completing at least 6 months as on the first day of the academic year the first

review shall be before the readmission in the respective academic year, while for a student completing less than 6 months as on the first day of the academic year the first review shall be before taking readmission in the subsequent academic year.

- (d) A copy of the report shall be given to the respective guide who will forward the same to the office with the readmission form.
- (e) A copy of the report of the RPRC shall be submitted to the respective HOD who will forward the report to the respective RC. The RC shall prepare a summary of all the reviews and recommend suitable action on case to case basis. The recommendations will be forwarded to the respective guides for necessary actions.
- (f) In case the research work is found to be unsatisfactory and the RPRC recommends cancellation of the registration of the student, a copy of the report shall be submitted to the respective HOD, who will seek the recommendations of the respective RC and then submit the report to the Dean, AP, for necessary action. The Dean, A.P. shall submit the report to the PGPC with his/her remarks. The decision of the PGPC shall be approved by the V.C. and whose decision shall be final.

8. Types of Ph.D. students

There shall be the following three categories of Ph.D. students

- (i) regular full-time scholars
- (ii) research scholars supported under the QIP/FIP
- (iii) research scholars who are faculty members of the university/*college/institute/industries*
- (iv) other categories as defined time to time

9. Recognition to guide Ph.D. students

- (a) The faculty members of the University shall be granted recognition to guide the candidates for Ph.D. degrees in different subjects as per the respective Regulation.
- (b) A Ph.D. guide shall be permitted to admit a maximum of 15 Ph.D. students, admitted for one or more subjects and under different schemes; provided that a student who has submitted his synopsis of the thesis shall not be considered under this limit; provided further that the students whose registrations have been transferred by the V.C. under any special circumstances shall also not be considered under this limit.

- (c) A research guide shall not be permitted to guide his immediate or close relative and to this effect he shall furnish a declaration in the prescribed format provided in the application form for admission.

10. Topic Approval

- (a) The student admitted to a Ph.D. programme shall submit a research proposal in the prescribed format as per the rule, through his guide and the respective HoD, within 6 months from the date of admission. Provided for any delay, a permission of the Dean (A.P.) has to be sought by applying through the guide and forwarded through the respective Head of Department, giving reasons for the delay.
- (b) The research proposal should consist of the topic of research and a broad outline of the work to be carried out **(MINIMUM 250 WORDS)**
- (c) The research proposal shall be submitted to the respective Research Committee for approval. The research committee will scrutinize the proposal with respect to the topic of research and the scope of research and approve it. If the proposal is not found suitable with respect to – (i) the guide's recognition, (ii) student's eligibility, (iii) purview of RC or (iv) any other anomaly, the proposal will be sent back to the respective student for necessary action.

11. Research work

- (a) A student registered for the Ph.D. programme is required to carry out research in the University for a period specified (period of residence), under the direct supervision of the research guide under whom he has registered.
- (b) The allocation of the supervisor to an admitted student shall be decided by the Department in a formal manner.
- (c) The research work must be undertaken in any department in the University; provided a part of the work may be carried out in any research institute other than the ICT or in Industrial R& D laboratory as per the norms.
- (d) A Ph.D. student will not be permitted to change the guide. Under any unforeseen circumstances, if a student desires to change the guide, or if the guide proposes to transfer a student registered with him, in either case without the consent of any one of the parties concerned, the student or the guide should apply to the Dean, A.P. for the same providing explanation to do so. The Dean, A.P. will place the application before

the PGPC, with his remarks. The PGPC will forward the application to the V.C. with its recommendations. The Vice-Chancellor may permit a change of guide with such conditions as he may deem fit, such as change of research topic, additional course work, etc. **Provided that** the transfer of a Ph.D. student from one guide to another guide can be effected with mutual willingness, given by both the present and proposed guides.

- (e) The minimum period of residence shall be 24 months from the date of admission.
- (f) The research work, research publications, patents, thesis and any other publication arising out of the research work done by a student in the University shall be subject to the Plagiarism rules of the Institute, Clause 10 of "Code of Ethics and Code of Conduct" for the Faculty Members, and any other rules and regulations of the University pertaining to these.
- (g) The student must maintain meticulously laboratory records, which should be provided at the time of open defense, if needed.

12. Colloquium

- (a) The candidate who has nearly completed his research work shall present a colloquium based on the work carried out, with consent from the guiding teacher/s.
- (b) The colloquium shall be presented at least 2 months before submitting the synopsis of the thesis.
- (c) The colloquium will be arranged by the Department concerned with a suitable notice and will be open to all.
- (d) The colloquium shall be in the presence of the respective Head of Department or his nominee, and the research guide.
- (e) The suggestions received during the colloquium should be suitably incorporated in the draft thesis under the advice of the guide(respective guide responsibility to incorporate suggestions received during the colloquium).
- (f) The candidate shall be permitted to submit the synopsis and the title of thesis only after giving a colloquium.

13. Synopsis

- (a) The student desiring to submit a thesis for the Ph.D. degree shall submit a requisite number of copies of synopsis of the thesis in the prescribed format, along with prescribed fee, before submission of the thesis.
- (b) The candidate shall submit the exact **Title of the Thesis** at the time of submission of the synopsis and the title must be in consonance with the approved topic. If there is any discrepancy in the title submitted, the respective RC may recommend resubmission of the synopsis.
- (c) The synopsis of the thesis should clearly highlight the work to be presented in the thesis.

14. Ph.D. Thesis

- (a) A Ph.D. student will be mainly evaluated on the basis of the Ph.D. thesis submitted by him/her and hence the thesis should be a carefully written and rigorously checked sustainable document, that would show – (i) that the candidate has a thorough grasp of the subject and the methodologies adopted; (ii) original approach taken and new observations made; (iii) appropriate interpretations of the findings; (iv) an ability to communicate research findings in a professional and contemporary manner.
- (b) The student must not have submitted the work contained in the thesis for the award of any other Degree or Diploma or any other academic award of this or other University or body; but a candidate shall not be precluded from incorporating work which he has already submitted for a Degree or Diploma or other academic award in this or in any other university or body in a thesis covering a wider field, provided that he shall indicate in a written statement accompanying the thesis any work which has been so incorporated. This must be certified by a statement by the candidate that shall be countersigned by the guiding teacher.
- (c) A Ph.D. thesis should embody the results of the candidate's own research and the candidate shall state whether the work is an original contribution to the field of research. The thesis must comply to the provisions of the Plagiarism policy of the Institute and contain appropriate acknowledgement of the work by others and this statement be reflected in a detailed bibliography and data sources.
- (d) The student shall submit the thesis only after 2 months from the date of submission of synopsis and within 6 months from the date of submission of synopsis. If the student

fails to submit the thesis within 6 months from the date of submission of synopsis, he/she shall apply to Dean (A.P.) for extension of period with due justification for the delay. The Dean, A.P., if satisfied with the justification, may grant an extension of 3 months for the submission of the thesis. Provided that if the student fails to submit the thesis even during this extended period he has to submit the fresh application, immediately before the expiry of the grace period, along with synopsis, for submission of thesis with full prescribed fee. Provided further that if the candidate fails to submit the thesis within 18 months from the date of submission of the synopsis his registration shall be automatically terminated.

(e) The student shall forward with his thesis 3 copies of any original contributions to the advancement of knowledge on the subject selected by him for his thesis or any cognate subject published by him independently or jointly with other persons which he relies in support of his candidature.

(f) A candidate wishing to submit his thesis can do so at any time after completion of two calendar years from the date of admission, but within four calendar years from the date of admission.

Provided that if a candidate fails to submit the thesis within the maximum period of four years from the date of admission, he must submit an application, supported by his guiding teacher stating valid reasons for the delay in submission of thesis. The V.C. may grant an extension of two years, one year at a time, to submit the thesis.

Provided further that if a candidate fails to submit the thesis within 6 calendar years from the date of registration he must submit an application, supported by his guiding teacher stating valid reasons for the delay in submission of thesis. The application shall be placed before the respective R.C. The R.C. shall submit the report with specific recommendation to the V.C. whose decision shall be final.

(g) Under no circumstances a candidate shall be allowed to submit his thesis after 8 calendar years from the date of admission and in such a case his registration shall automatically cease.

(h) A student shall submit **three copies** of the thesis with soft binding and the thesis shall be formatted as per the rules.

(i) After successful open defense the student shall submit the thesis in CD form and also submit one hard bound copy, with printing on both sides, prepared as per the norms. This copy shall contain a certificate of open defense signed by the members of the open defense committee and a certificate from the registrar stating that the student was a bonafide student of the institute and has completed all the requirements of the

Ph.D. degree as per the Ph.D. Ordinance of the Institute and the degree of Doctor of Philosophy has been awarded to him as per the Provisions of the said Ordinance.

- (j) The copyright of the thesis shall be with the University.
- (k) A student himself may submit his thesis for lower Masters degree if in the opinion of the guiding teacher or RPRC his work is not worth of submitting for Ph.D. degree but for the Master's degree, provided the candidate does not already hold the respective masters degree.

15. Appointment of referees

- (a) The synopsis of the thesis shall be forwarded to the appropriate RC which shall recommend to the PGPC a panel of suitable External referees for evaluation of the thesis, the guide shall be the internal referee.
- (b) The R.C. shall recommend three external referees for each thesis and list them in order such that-
 - (i) The first two shall be the external referees to be invited to evaluate the thesis and the first referee shall be invited to conduct the open defense.
 - (ii) The third external referee shall be invited in case one of the first two referees does not accept the invitation to evaluate the thesis or rejects the thesis after evaluation.
 - (iii) At least one of the first two referees shall be from a state other than state of Maharashtra, provided further that at least one of them shall be from an Academic institution or Research Institute or University.
 - (iv) There shall be no bar on a foreign referee, wherever possible and if the RC feels necessary.
- (c) The appointment of referees will be preferably from a pre-existing pool of names generated for each subject with various specializations.
- (d) While forwarding the synopsis, the guide should forward a panel of experts who are with adequate research experience in the area.
- (e) The person to be appointed for the evaluation of a thesis as an external referee must be a doctorate in the same area or a cognate area of the thesis and should have a sufficiently long experience in research; minimum five years after Ph.D.
- (f) The following persons shall not be appointed as referees

- (i) blood relation of the candidate or of the guiding teacher concerned; blood relation means brother, sister, spouse, first maternal and paternal uncle, and first cousins;
 - (ii) past student of the same guiding teacher;
 - (iii) retired teacher from the ICT;
 - (iv) person having degree lower than Ph.D.
 - (v) any person from the institute other than ICT under whom the candidate has done work for more than 3 months during his/her Ph.D
 - (vi) member of the respective RC;
 - (vii) Current visiting teacher in the respective Department.
- (g) When a guide recommends a list of experts, he shall certify that no person from the list is from those listed in sub-clause 15(f) above and all of them fulfil the necessary requirements. Further, after the appointment of referees the guide should verify that the provisions of clause 15 are met and should indicate any anomaly in the list of external referees finally appointed.
- (h) The names of the referees shall be approved by the PGPC in its forthcoming meeting; provided that if such a meeting does not take place within 2 months from the date of the meeting of any RC, the Dean, A.P. shall have power to approve the names and subsequently inform the PGPC the same.

16. Evaluation of thesis

- (a) A copy of the abstract/summary/synopsis of thesis shall be sent to the external referees along with the letter of invitation with a request to communicate the acceptance of the invitation within 2 weeks. When a referee accepts the invitation the Registrar should forward the thesis within 15days of the receipt of the acceptance.
- (b) If no information is received from the external referee within 2 weeks from the date of communication, a reminder should be sent. If no response is obtained within 15 days from the date of the reminder, the appointment should stand cancelled and the third referee should be appointed in that place.
- (c) After receiving the acceptance from an external referee a copy of the thesis shall be sent to him, by registered/speed post, with a request to submit the report within 60 days.
- (d) The external referees should evaluate the thesis as per the guidelines and submit the report in the prescribed format.

- (e) If no report is received from an external referee within 60 days, a suitable reminder should be sent, followed by another reminder after 30 days.
- (f) In case where any of the external referees does not send the report of evaluation within 3 months from the date of dispatch of the thesis, and no communication is received in the matter, the V.C. may consider nomination of the third referee. The report received from the previous referee after this shall be treated as null and void.
- (g) The candidate may be provided with the copies of the reports of the referees.
- (h) The thesis which has been rejected may be resubmitted after thorough revision after 6 months from the date of rejection of thesis.
- (i) Under no circumstances a candidate shall be allowed to submit his thesis after 8 calendar years from the date of admission and in such a case his registration shall automatically cease.

17. Open Defense

- (a) The open defense of the candidate is conducted in order to evaluate the student with respect to his – (i) basic subject knowledge (ii) knowledge of the subject matter of the thesis (iii) clarity of self-expression and (iv) defense of his own work.
- (b) After the thesis has been recommended by the two external referees as per the regulation, the candidate shall be invited to defend his thesis in open defense.
- (c) The open defense shall be a open defense and shall be conducted as per the regulation.
- (d) During the open defense if the committee discovers some serious anomalies or use of unethical practices, the case will be dealt with as per clause 23.

18. Award of Ph.D. degree

- (a) Registrar shall confirm whether all the requirements for submission of thesis have been fulfilled before accepting the thesis.
- (b) After completing all the prescribed conditions, the student will be issued a provisional certificate certifying to the effect that the Degree has been awarded in accordance with the provision to the UGC (Minimum standards and procedures for Award of M.Phil/Ph.D. degree), Regulations 2009.

- (c) The Ph.D. degree shall be awarded on the recommendation of the Academic Council and with the approval of the Board of Management and this should be indicated on the degree certificate.
- (d) The Ph.D. degree certificate shall indicate the discipline – Science/Pharmacy/Technology/Engg – the subject of research, and the Department in which the work was carried out.

19. Relief from Ph.D. programme

A Ph.D. student may be granted relief from the Ph.D. programme under the following conditions

- (a) The student shall be granted relief when due to circumstances beyond the control of the student, such as severe illness, forces him to suspend the research work.
- (b) The student shall make a specific written request for granting the relief, giving valid reasons, to the Dean (A.P.) with strong position recommendation from the guide and the respective Head of Department.
- (c) The Dean (A.P.) shall forward the application to the V.C. with his remarks and the V.C. shall grant the requested relief after being convinced about the genuineness of the request.
- (d) Such a relief shall be granted for a maximum period of one year from the date of the application and only once in the entire tenure of the Ph.D. of the candidate.
- (e) During the relief period the registration of the student shall continue; however, for such a period the fee shall not be charged on prorated basis.
- (f) The relief shall be granted only when the student will be in a position and is ready to resume the work after the granted relief period.
- (g) In the case of a student availing relief under this clause, the period of relief shall be added to the prescribed minimum period of residence for submission of thesis.

20. Caretaker guide

- (a) When a research guide proceeds on leave for a period of more than 3 months, and if there is no co-guide, the guide should suggest a name of a caretaker guide for his student and after receiving the consent from the proposed caretaker guide, the respective Head of Department, shall forward the application to the Dean (A.P.) for approval.
- (b) The caretaker guide shall be from the same or different Department of the Institute.

- (c) The caretaker guide shall have the responsibilities of the main guide proceeding on leave with respect to supervising the research work of the research student.
- (d) For a caretaker supervisor the limit of research students prescribed shall not apply and the prescribed qualifications may also be relaxed with permission of the VC.
- (e) If a research guide proceeds on leave for a period of more than three months and fails to recommend the name of a caretaker guide for his student for whom there is no co-guide, the Head of Department shall report such a case to the Dean (A.P.) and shall take appropriate action in consultation with Dean (A.P.). Such a case shall be reported to the V.C.

21. Leave

- (a) In addition to the holidays declared by the University the research scholars are eligible to avail leave as per the rules of the fellowship availed by the student.
- (b) If the student is not in receipt of any fellowship or the stipend/fellowship he/she receives does not prescribe any leave rules, the Institute's rules for its employees shall be applicable in such a case.
- (c) The leaves shall be granted by the Head of Department on recommendation of the guide.

22. Cancellation of registration

- (a) The registration of a student for Ph.D. degree shall be cancelled under the following conditions
 - (i) The student remains absent for a continuous period of six months without giving any valid reason.
 - (ii) The student has not paid the fees and has not renewed admission over two consecutive years.
 - (iii) Two consecutive annual progress reports of the student are unsatisfactory and the R.C. recommends the cancellation.
 - (iv) The student fails to submit thesis within 18 months from the date of submission of 1st synopsis.
 - (v) The student has resigned.

- (vi) The student is found guilty in any misconduct or found to have adopted malpractice and the grievance redressal committee has recommended expulsion of the student from the Ph.D. programme.
 - (vii) The student is convicted in any criminal act or act of moral turpitude.
- (b) Under any of the above conditions. Except (v), the matter will be referred to the respective RC and the RC shall forward the report, with specific recommendation, to the V.C. whose decision shall be final.

23. Action against malpractice or in case of any dispute

- (i) In case of a Ph.D. student found adopting or suspected to adopt unfair means, suitable action will be taken to uphold the sanctity and integrity of the highest degree and the credibility of the University.
Such a case may be reported by any person to the respective Head of Department, Dean (AP), Dean (RCRM), Registrar, COE or the V.C, who will report the matter to the Dean, A.P. for further action.
 - (ii) The Dean, A.P. will constitute a committee consisting of the following members which will take *suomoto* cognizance of such a case.
Dean, A.P. Chair (if not the guide/coguide)
Dean, (RCRM)
Dean, SAHRD
Head of the respective Department, if the head himself is a guide/coguide then any other Head of Department, who is a Professor
One Senior Professor from a Department other than the Department concerned
Respective research guide
 - (iii) The Dean, A.P. shall forward the recommendations of the committee with his remarks to the PGPC. The recommendations of the PGPC will be forwarded to the V.C. for necessary action and the decision of the V.C. shall be final.
- (b) (i) In case of a dispute between a student and his guide, the respective HOD will refer the matter to the Dean (AP), who will constitute a committee with the composition as given in (a) above, except the research guide at (vi) above..
- (ii) The report of the committee shall include specific recommendations. The report will be forwarded to the PGPC by the Dean (AP) with his remarks. The recommendations of the PGPC will be forwarded to the V.C. for necessary action and the decision of the V.C. shall be final.

- 24.** No student shall be permitted to submit a thesis or to appear for the open defense examination on more than TWO occasions.

25. In case of any matter not covered in this Ordinance, the V.C. should consult the Dean (A.P.), and the persons concerned and take appropriate decision, which shall be final.

R.20 Regulation relating to the recognition of guides for Ph.D. Degrees

1. The existing recognitions granted by the University of Mumbai to the faculty members as on 1st March 2014 for guiding research students at Master's and Doctoral degrees at the ICT shall continue.
2. Recognition shall be granted specialty-wise/subject-wise for specific area of specialization as decided by the respective R.C.
3. A Teacher recognized for a Ph.D. degree in a particular subject shall be automatically considered as a teacher recognized for the Master's degree by research in the same subject.
4. Every recognized teacher must be attached to a Department of the Institute. The recognition of a teacher, whose Institutional attachment ceases on account of retirement on superannuation or voluntary retirement or resignation or any other reason, shall cease automatically, unless renewed before the actual cessation of the attachment.
5. An Assistant Professor or Associate Professor or Professor having Ph.D. degree and appointed in the ICT on a permanent regular basis, including the one promoted to these posts under the Career Advancement Scheme, shall be deemed to have been recognized as a teacher of the Institute for guiding research for Master's and Ph.D. degrees in the subject corresponding to the post for which he has been appointed.
6. An Assistant Professor or Associate Professor without Ph.D. degree and appointed in the ICT on a permanent regular basis, including the one promoted to these posts under CAS, shall be deemed to have been recognized as a teacher of the Institute for guiding research for Master's degree in the subject corresponding to the post for which he has been appointed; provided that he is not pursuing Ph.D.; provided further that if he is pursuing Ph.D. his recognition shall stand suspended till he acquires Ph.D. degree.
7. Ordinarily a teacher shall not be granted recognition for Ph.D. degree in not more than three related subjects.

8. When a faculty member desires to acquire recognition for guiding Ph.D. work in a subject other than the subject for which he has been appointed, the following procedure shall be applied.
 - (i) An application in the prescribed form should be made to the respective Research Committee through the Head of the Department in which he/she is working.
 - (ii) The recognition may be granted provided the person has a Ph.D. degree in the subject and has done considerable research work of recognized merit in the new area, indicated by quality publications (at least three) which he has published with he as the principal author, after acquiring Ph.D., in peer reviewed journal with good impact factor.
 - (iii) Due consideration shall be given to the facilities for research in the subject available while granting recognition.
9. An Assistant Professor appointed in the ICT on a permanent regular basis with Bachelor's qualification is not recognized for guiding Master's or Doctoral degrees.
10. A person working outside the Institute shall not be recognized for guiding research at the Institute; however, such a person may be recognized as a co-guide as per the respective Ordinance.
11. A person who has already been recognized as a guide for Ph.D. by a recognized University/Institution and is subsequently appointed in or transferred to the ICT shall be permitted to guide students for Ph.D. Degree in the same subject; provided he makes an application to this effect with necessary documents to RC and the Vice-Chancellor is competent to grant such a recognition.
12. Adjunct teachers, Honorary Professors, Scientists, etc. appointed by the Institute shall be deemed to have been recognized as co-guides for guiding research for Doctoral degrees in the respective subjects. If such a teacher is desirous of acquiring recognition for guiding research for Ph.D. degree shall have to make an application in writing in the prescribed form and shall be submitted through the Head of the Department in which the teacher is working; provided the appointment is a tenure appointment (with minimum of three years remaining). The application will be considered by the respective Research Committee on the basis of its merit and norms applied to the faculty members of the Institute.
13. It shall be competent to the Academic Council to withdraw at any time the recognition of a research guide on account of persistence irregularity in the academic duties without any valid reason/s, which in the opinion of the Academic Council invite disciplinary action or if the guide is found to be involved in plagiarism, moral turpitude, fraudulent academic

accomplishments, by a committee constituted by the Dean (A.P.) and consisting of the respective Head of Department, and two senior professors from other Departments and Dean (A.P.), Dean (SA&HRD) as the Chairperson.

14. If a teacher has acquired an additional recognition to guide students for master's degree or Ph.D. degree in a subject other than his own subject, but fails to register a student for such a degree within 5 years from the date of this additional recognition, the additional recognition shall cease automatically and he can apply again.
15. The ICT faculty members may be permitted to guide research students working in recognized centres as per the norms.
16. The recognition of a person shall continue so long as he answers to the designation and institutional attachment on the basis of which he was granted recognition.
17. When a faculty member who has guided a candidate for at least 3 years retires, he will automatically continue to be a guide for such a candidate. However, a co-guide who is in service will be appointed by the V.C.
18. A faculty member who is to retire within 2 years may be permitted to be a guide to a new research scholar only with another faculty member who is recognized guide in same subject and who is not likely to retire within 5 years, as a co-guide, at the time of registration itself.
19. CSIR/UGC/AICTE emeritus fellow, scientist, who holds the office at this Institute for a period of 2 years or more, can become co-guides for the Ph.D. students along with a guide from ICT with at least 5 years service still left at the time of registration of the scholar.
20. Persons appointed in the ICT under INSPIRE, Faculty Recharge Scheme of the UGC any such other schemes with minimum 5 year tenure, and where the person so appointed is equivalent to a regular faculty member of the Institute and under which the person is expected to guide students for the Ph.D. degree, shall be automatically recognized to guide Ph.D. students in the subject in which he has done Ph. D. for which he has been appointed the Institute intimation to RC.

R.23 Regulation relating to the evaluation of thesis for Ph.D. degree

1. A Ph.D. thesis shall be evaluated by the three referees - two external referees appointed by the RC and the research guide of the candidate who is the internal referee.

2. The referees shall examine the thesis specifically with a view to judge whether the thesis is a piece of original research work characterized by discovery of new facts, a fresh approach towards interpretation of facts or theories, a distinct advancement in the subject; and give opinion about candidate's ability for critical examination and sound judgement.
3. The referees shall submit the report of evaluation in the prescribed format with the final recommendation, and a detailed report.
4. The guide/ internal referee should submit his report of evaluation at any time after submission of thesis before scheduling of the open defense.
5. The final recommendation shall be in the form of –
 - (i) I recommend the thesis for the award of degree of Doctor of Philosophy.
 - (ii) I recommend the thesis for the award of degree of Doctor of Philosophy after clarification of the points raised in the report, to the satisfaction of the referee panel conducting the open defense, at the time of open defense.
 - (iii) I recommend the thesis for the award of Doctor of Philosophy after making the minor corrections as given in the report and the same be verified and approved by the guide and the referee conducting the open defense.
 - (iv) I do not recommend the thesis for the award of Doctor of Philosophy in the present form as the thesis needs major modifications as suggested in my report. The thesis must be modified in light of these suggestions and refereed back to me for fresh evaluation.
 - (v) I am not recommending the thesis for the award of degree of Doctor of Philosophy (specific and concrete reasons should be given in the detailed report).
6. The open defense of the candidate will be conducted only after both the external referees and guiding teacher recommend the thesis for acceptance for the award of Ph.D. degree, with recommendation as in 5i-iv.
7. If one or both referees raise some queries, with recommendation as given in 5(ii), the candidate should give satisfactory explanations at the time of open defense, and make any minor change required in the thesis and with approval from the guide the thesis will be accepted.
8. If one or both the external referees recommend the thesis for acceptance, but suggest minor corrections, as in 5(iii), the open defense of the candidate shall be conducted and suitable changes in the thesis shall be made by the candidate and with approval from the guide and the external referee conducting the open defense, the thesis will be accepted.
9. In case of any ambiguous recommendation, the registrar shall approach the referee for clear recommendation. If such a recommendation is not received within 4 weeks or the opinion of any referee still is not conclusive, the matter shall be referred to the Dean (A.P.), who will constitute a committee consisting of the Chairman of the respective RC as

the Chairperson, two subject experts, and the research guide. The committee shall investigate the matter and submit its recommendation to the Dean, A.P. The report of the committee shall be placed before the PGPC for decision which shall be final.

10. If the external referee/s asks for major modifications in the thesis, as in 5(iv), the candidate shall be asked to revise the entire thesis, and submit the requisite number of revised copies within 6 months from the date of intimation of the result, failing which the thesis shall be rejected. The revised thesis shall be sent to the same referee/s for fresh evaluation.
11. If a thesis is recommended for the degree (as in 5(i), (ii), (iii)) by one of the external referees, while the other external referee does not recommend the thesis for the degree as in 5(v)), the third referee in the list of referees shall be appointed as the third external referee for the evaluation; provided that whenever the third referee is appointed under this provision, he will not be provided the reports of the other two referees and his independent opinion is sought.
12. When the third referee is appointed as per the Clause (11) above –
 - (a) If two of the three external referees do not recommend the thesis for acceptance for the Ph.D. degree, as in 5(v) above, the thesis shall be rejected.
 - (b) If two of the three external referees recommend the thesis for acceptance as in 5(i), (ii), or (iii), the open defense of the candidate shall be conducted.
 - (c) If two of the three external referees recommend the thesis for acceptance and suggest minor modifications the action should be taken as per clauses (6), (7) and (8).
13. When both the external referees do not recommend the thesis for acceptance for Ph.D. degree, as in 5(v), the thesis is rejected.
14. A thesis rejected under the provisions of clause 5(v) may be resubmitted, with the same title with complete revision and additional work if needed, within 12 months from the date of intimation of the rejection result, after payment of full prescribed fees, failing which the thesis shall be rejected and the registration of the candidate shall be cancelled. This thesis shall be considered as fresh thesis and RC should recommend new set of referees (Should be different from the previous referees)
Provided that the candidate should forward an application to the registrar within 1 month, through the guide, of his intention to resubmit the thesis as per this provision.
Provided further that if such a resubmitted thesis is again rejected, the thesis shall be permanently rejected and the registration of the candidate shall be cancelled and he ceases to be a student of the Institute.
15. After successfully completing the open defense the candidate shall submit to the University final copy of the thesis, after incorporating the changes and updating the data, if suggested by the referees, and the guide shall certify. The final approved thesis shall also be submitted on a CD in suitably protected form in addition to the hard copy.

R. 24 Regulation relating to the conduct of Open Defence

1. On receipt of the positive reports of both the external referees, and the research guide, recommending the acceptance of the thesis for the award of the Ph.D. degree, the office shall intimate the guide names of external referees and request to fix the date of the open defense of the candidate. Referees names shall not be intimated to guide till the reports of external referees are received.
2. Office should send reports of external referees to Guide and guide should intimate the student corrections/suggestions as received from office. Student will submit a point wise response to these suggestions of referees to the satisfaction of guide. Guide should verify and certify that the corrections and suggestions have been incorporated in the corrected thesis copy.
3. The guide, in consultation with the external referee who will be conducting the open defense, shall fix the date and communicate to the office. At least two weeks' notice should be given to the candidate of the schedule of the open defense.
4. A notice of the open defense with day, date, time and venue shall be placed on the notice board of the University at least one week before the date of open defence by the office.
5. The open defense of the candidate shall be open defense.
6. A committee consisting of the following shall conduct the open defense.
 - (i) Head of Department (or his nominee) will be the Chairperson.
 - (ii) The external referee who has been appointed to conduct open defense.
 - (iii) The guiding teacher
7. The open defense may be attended by any person within the institute and any other bonafide invitee. Attendance records of the participants will be kept on record by the office.
8. The other external referee may, if so desired, send in written questions to the referee conducting the open defense, to seek clarification on any point/s in the thesis.
9. The open defense of the candidate shall be conducted in the following manner.
 - (i) At the beginning the candidate will make a brief presentation of his work.

- (ii) Following the presentation the candidate shall be asked questions pertaining to the work and also to test the candidate's knowledge of the subject of thesis.
- (iii) The external referee and the guide will ask questions for which no permission of the chairperson is required.
- (iv) The Chairperson's permission is required for any questions from a person other than the external referee and the guide.
- (v) The committee may verify the laboratory records, samples, etc, if required.
- (vi) No person in the audience will have a right to comment on the acceptability or non-acceptability of the thesis for the award of the degree.
- (vii) Open defense by electronic media may be permitted after obtaining prior permission from Dean AP

10. At the time of open defense, the student should keep ready his laboratory records, analysis results, samples, etc.

11. The Chairperson, the external referee and the guide will make a report of the open defense and forward it to the Dean, A.P.

12. The recommendations shall be specific and final and one of the following.

We recommend the award of the degree of Doctor of Philosophy in the subject of to the candidate.

OR

The open defense of the candidate was not satisfactory and we recommend that the candidate should undertake a fresh open defense aftermonths

OR

We do not recommend the award of the degree of Doctor of philosophy in the subject ofto the candidate. (In the report grounds should be spelt out)

13. In case the committee recommends a fresh open defense such a open defense has to take place within 6 months from the date of the first open defense; provided further that, the decision that "*although the thesis was found worthy of acceptance the candidate's performance at the open defense was found unsatisfactory and he is required to appear again at a second open defense within months and that if he fails to satisfy the committee at the second open defense his thesis will not be recommended for the award of the Degree*", has to be communicated to the candidate by registered post (AD) within one month after the receipt of the report of the first open defense.

14. **The Second open defense:** The following procedure shall be followed for holding the second open defense.

- (i) The second open defense should as far as possible be held by the same external referee who had conducted the first open defense; provided if the referee is not available, the dean AP in consultation with the RC chairman shall appoint another referee (preferably the second referee) to conduct the open defense.
 - (ii) Within one month of the receipt of the communication the candidate must write to the University, through the guide, that he is prepared to appear before the referee for his second open defense.
 - (iii) The candidate shall submit his application through the guide and should pay the required fee towards the conduct of the open defense.
 - (iv) The second open defense shall also be attended in addition to the regular committee by
 - a. The Dean (A.P.)
 - b. Senior Professor from other Department,
 - (v) The second open defense shall be conducted in the same manner as the first open defense.
 - (vi) The thesis of the candidate must be retained by the office till the candidate's reappearance at the second open defense and declaration of his result.
 - (vii) The referee should hold the open defense normally within one month of the receipt of the communication in the matter.
15. If the committee does not recommend the thesis for the award of the degree on the basis of even the second open defense, the degree shall not be awarded and the registration of candidate shall be cancelled.

R. 25 Regulation relating to the Course Work for the Ph.D. students

1. The course work is treated as a pre-Ph.D. preparation and must be successfully completed before submission of the synopsis of the thesis.
2. The course work is mandatory for all the students who have taken admission for Ph.D. programmes in ICT.
3. The course work shall be equivalent to 18 credits
4. A candidate shall take three credit courses, each of minimum of 3 credits, and three audit courses, each of minimum of 3 credits. The course work should include a credit course on **Research Methodology** for all the students. Audit course on **laboratory Safety** at the institutional level is applicable.
5. The selection of the courses will be by mutual consultation between the candidate and the guide.

6. The candidate may take any course as credit course or audit course from the Master's courses offered in the University and the same or its equivalent in content has not been taken by him earlier at ICT or elsewhere, either as credit course or audit course.

In case of candidate undergoing interdisciplinary research, additional credit courses (Can be undergraduate courses) as suggested by equivalence committee are recommended.

7. Course work may be carried out in a sister Department in the University or an Institute outside the University which is duly recognised for this purpose and due credit will be given for such courses.
8. The list of subjects offered for credit and audit courses will be supplied by each department and will be available to the students while exercising the option.
9. **Credit course:** The candidate must attend all lectures as per the attendance rule, undergo continuous evaluation, take the mid-semester examination, and the end-semester examination. The evaluation of the candidate will be as per the provisions of the R.9 of the Institute.
10. **Audit course:** The candidate must attend all lectures as per the attendance rule. The candidate need not appear at any evaluation process. The attendance of the candidate will be certified by the teacher conducting the course.
11. In addition to available audit courses within university or other Institutions/university, e-courses are permitted with prior permission from Dean AP. Attendance need to be certified by the respective guide.

Rules regarding the format and writing of Ph.D. thesis

1. A thesis should be organized as a single chapter or as a series of relatively independent chapters with appropriate summary chapter at the beginning.
2. Thesis must be prepared in a suitable format be easily legible for examiners.
3. Referees may ask the candidate to make minor amendments to a thesis, which should be done before submitting the hard bound copy to the office after the open defense.
4. Rewriting and changes may be necessary if the specifications are not met. Result of the examination shall not be issued until the office receives the final copy of the thesis in the

required format and certified by the guide that all required changes have been made and approved by the Dean A.P.

5. Any formatting information that is not explicitly presented in these rules is up to the judgement of the candidate and the guide and reasonable solutions will be accepted.
6. The candidate must make every effort to correct errors before submission of thesis.
7. Use A4-size paper with 1.25" left margin, 1" top and bottom margin, 1" right margin on each page.
8. The letter font should Times New Roman with font size of 12.
9. Line spacing should be 1.5 (one and a half). Indented quotations or footnotes where single spacing may be used.
10. **Initial submission:** Three **soft-bound copies**(spiro bound). The copy will have a soft cover. The printing should be on only one side of the paper.
11. **Final submission:** After successful completion of the open defense, one **hard-bound copy** of the thesis along with a soft copy in a CD form shall be submitted. The copy must be covered in black cloth (e.g. water resistant material), with golden embossing. It must be lettered in gold up the spine indicating Degree, Year, and Surname with Initials of the candidate 16 to 18 point (0.25 inch). The hard-bound thesis must have the pages shown in (not punched). The final copy will incorporate all the suggestions and modifications (if any) suggested by the internal and externals examiners. This copy should be printed on both sides of the A-4 size paper. The **Electronic copy** of the thesis must be submitted in a single PDF file on CD FONT SIZE 10.
12. **Title of Thesis:** The title of the THESIS must be the one approved earlier by the RC at the stage of synopsis. It should not contain acronyms in brackets.
13. **Abstract:** An abstract of the thesis may be required for publishing in any relevant database. The abstract should provide a succinct and informative condensation of the work presented in the thesis, not exceeding 350 words. Graphs, charts, tables or illustrations should not be included.
14. **Declaration of originality:** This declaration by the candidate indicating that the work is original and the candidate's own work must be in the format prescribed.
15. Thesis shall not be dedicated.

16. The copyright should be with University and the year of copyright shall be the same as the year that the candidate will be receiving the actual degree date of submission
17. **Cover page and Title page:** These must be as per the format prescribed and given in the annexure. If there is a co-guide to the candidate his/her name must be printed. In case the guide/co-guide is not an employee of the ICT, the guide's affiliation should be mentioned.

ANNEXURES

Annexure 1

GUIDELINES RELATING TO THE WRITING OF Ph.D. THESIS

1. The body of the Thesis contains the work done by the student. It should tentatively have the following sections: Introduction, Objectives and Scope, Literature survey, Work done on each objective, Results and Discussion, Conclusions, Recommendations for Further Work, and References.
2. Sections will be numbered 1, 2, 3, etc., while subsections will be numbered 1.1, 1.2, 2.1, 2.2, etc.
3. Attach appendices, if required, and include those in the table of contents.
4. **Tables:** Tables should be numbered as Table 1.1, 1.2, 1.3 (in chapter 1), Table 2.1, 2.2, 2.3 (in chapter 2), etc. Table heading should appear above the Tables. A parameter given in a column should have its unit of measurement given in the same column. The text must have references to the Tables.
5. **Figures:** The figures should be preferably drawn by the candidate; except when they are very complicated or photographs. In a graph the independent variable is plotted on the horizontal axis, whereas the dependent variables are plotted on the vertical axis. The units of measurement must appear alongside the names of the variables. Figures should be

numbered as Fig. 1.1, 1.2, 1.3 (in chapter 1), Fig. 2.1, 2.2, 2.3 (in chapter 2), etc. Figure captions should appear below the Figures. Figures must be referenced in the text.

6. Pagination: All pages except the title page must be numbered. Use small Roman numerals (i, ii, iii ...) for all preliminary pages. Use Arabic numerals beginning with the introduction or chapter I of the main text of the thesis, and continue with every sheet that follows, except the black sheets; whether it be text, figures, explanation for figures or photos, tables, maps, appendices, etc., numbering pages to the end.

7. Materials such as references, appendices, may be included at the end of each chapter, making each chapter a complete and self-contained paper.

8. Bibliography: Bibliography may be given at the end of the thesis or chapter-wise at the end of each chapter. The candidate has to use the style current in the candidate's discipline, and the style must be employed consistently throughout the thesis. For helpful guides to the systems of documentation established in various fields, the students should consult one or more of the following materials

- (i) The ACS style guide: A manual for authors and editors, J/S. Dodd, editor, Washington D.C., American Chemical Society, 2nd Ed., 1997.
- (ii) Chicago manual of style, 14th Ed, Chicago, IL, University of Chicago Press, 1993.
- (iii) Dissertation Abstracts International.
- (iv) Publishing your dissertation: How to prepare your manuscript for publication, <http://www.umi.com>.
- (v) Elements of style, William Struck Jr, Allyn and Bacon, 2000.

9. Use of Verb Tenses: Use Past tense or present tense for the literature review and the description of the procedure if the discussion is of the past events. Use past tense to describe the results. Use the present tense to discuss the results and to present the conclusions.

10. Mathematical Symbols: *Italicise* the symbols used in mathematical expressions. Each equation should appear immediately after it is referred in the text. To make it look distinct, it should be separated from the text (both preceding and following it) by larger line spacing and an indentation should be given. An example follows:

$$y = \frac{x_1}{x_2} \dots (1) \quad \text{or} \quad y = \frac{x_1}{x_2} \dots (1)$$

11. Units: As far as possible SI units should be used. Symbols do not have an appended period/full stop (.) unless they appear at the end of a sentence. Symbols are written in upright Roman type (m for metres, l for litres), to differentiate from the italic type

used for mathematical variables (*m* for mass, *l* for length). Symbols for units are written in [lower case](#), except for symbols derived from the name of a person. The symbols of units are not pluralised (5.0 kg and not 5.0 kgs). A space separates the number and the symbol (2.2 kg). Exceptions are the symbols for plane angular degrees, minutes and seconds (°, ', and "), which are placed immediately after the number with no intervening space. Symbols for derived units formed from multiple units by multiplication are joined with a space or [centre dot](#) (·) (e.g. "N m" or "N·m"). Symbols formed by division of two units are joined with a [solidus](#) (/), or given as a negative [exponent](#). For example, the "metre per second" can be written "m/s", "m s⁻¹", "m·s⁻¹" or $\frac{\text{m}}{\text{s}}$. A solidus should not be used if the result is ambiguous, i.e. "kg·m⁻¹·s⁻²" is preferred to "kg/m·s²". Many units in everyday and scientific use are not derived from the seven SI base units (metre, kilogram, second, ampere, kelvin, mole, and candela). In some cases, these deviations are allowed. Some examples include: minute (min), hour (h), day (d). The "year" is specifically not included in SI units, but its use is accepted. [Electric energy](#) is often billed in [kilowatt-hours](#) instead of megajoules. Atomic scale units used in physics and chemistry are: [ångström](#), [electronvolt](#), [atomic mass unit](#), and [barn](#). [Blood pressure](#) is measured in mmHg instead of Pa

Annexure 2: Format of the cover page

Title of the Thesis

Thesis submitted to the

INSTITUTE OF CHEMICAL TECHNOLOGY, MUMBAI

for the award of the degree of

DOCTOR OF PHILOSOPHY (TECHNOLOGY/SCIENCE/PHARMACY)

In the

SUBJECT

by

NAME OF STUDENT

under the supervision of

NAME OF GUIDE/S



**Department of Chemical Engineering
Institute of Chemical Technology, Mumbai**

(University under Section 3 of UGC Act 1956;
Elite Status and Centre of Excellence, Government of Maharashtra)

Maharashtra, India

Month and Year

Annexure 3: Format of the title page

Title of the thesis

Thesis submitted to the

Institute of Chemical Technology, Mumbai

for the award of the degree of

DOCTOR OF PHILOSOPHY

In the

.... Subject

by

Candidate's name

under the supervision of

.... Guides's name (with co-guide if any).....



Department of

Institute of Chemical Technology, Mumbai

(University under Section 3 of UGC Act 1956;

Elite Status and Centre of Excellence, Government of Maharashtra)

Maharashtra, India

Month and Year

Annexure 4: Format of the certificate of open defense

INSTITUTE OF CHEMICAL TECHNOLOGY, MUMBAI

Recommendation of the open defense committee

Certified that the open defense of (name of student) was held on (day) (date), at the Institute of Chemical Technology, as per the respective Ordinance and Regulation. The candidate has successfully defended his thesis titled “.....” submitted to the Institute of Chemical Technology, Mumbai. We recommend the thesis for the award of the degree “Doctor of Philosophy (Technology/Science/Pharmacy) in (subject).....”

Signature of referee
Guide

Signature of Chairperson Signature of

Date:

(Note: This certificate is to be enclosed in the bound thesis after the open defense. Signature of co-guide, if any, should also be taken)

Annexure 5: Format of declaration by the candidate

DECLARATION BY THE CADIDATE AS PER ORDINANCE.....

I hereby declare, as per Ordinance relating to the Degree of Doctor of Philosophy, that
—

- (1) The thesis entitled submitted by me for the degree of Doctor of Philosophy (Technology/Science/Pharmacy) is the record of the research work carried out by me during the period from _____ to _____ under the guidance of my research guide _____ .
- (2) The work is original and whenever I have used materials (data, theoretical analyses, figures, text, etc.) from other sources, I have given due credit to them by citing them in the text of the thesis. Further, I have taken permission from the copyright owners of the sources, whenever necessary.
- (3) The work embodied in the thesis has not been submitted to this or any other University or Institute for the award of any degree, diploma, or certificate.
- (4) I have followed the guidelines of the Institute in preparing the thesis. I have conformed to the norms and guidelines given in the Ethical Code of Conduct of the Institute, including the policy of plagiarism.
- (5) I hereby grant to the university and its agents the non-exclusive license to archive and make accessible, my thesis, in whole in all forms of media, now or hereafter known.

Date:

Signature of the Candidate

The declaration made as above is true to the best of my knowledge

Date:

Signature of guide

(Signature of co-guide, if any)

Annexure 6: Format of the certificate of the guide

CERTIFICATE OF RESEARCH GUIDE

This is to certify that the thesis titled “ *(title)*.....” submitted by *(name of student)*..... to the Institute of Chemical Technology, Mumbai, for the degree of “Doctor of Philosophy (Technology/Science/Pharmacy) in *(subject)*..... is a bona fide record of the research work carried out by him in the Department of, Institute of Chemical Technology, Mumbai, under my supervision. . *(name of student)* has worked under my guidance on this topic from till

The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree, diploma, or certificate. The thesis, in my opinion, is worthy of consideration for the award of the degree “Doctor of Philosophy (Technology/Science/Pharmacy) in *(subject)* in accordance with the Rules and Regulations of this University.

Date:

Signature of Guide

(Signature of co-guide, if any)

(The above certificate should be modified suitable if there is a co-guide)

Annexure 7

Notice of open defense

A notice is hereby given that the open defense of for Ph.D. (Tech/Science/Pharm) degree in has been arranged as per the following schedule:

Signature
Head
Department of
Date:

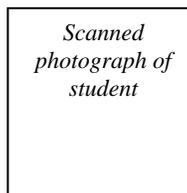
Student's name	Ms. / Mr.
Degree	
Day, Date, Time	
Venue	
Thesis Title	
Research Supervisor(s)	
Registration No. with date	

Brief Abstract:

Annexure 8: Colloquium Notice

INSTITUTE OF CHEMICAL TECHNOLOGY
(Deemed to be University under Section 3 of the UGC Act 1956)
Matunga, Mumbai-400 019

Colloquium Notice



Notice is hereby given that the Colloquium for Ph.D. Thesis has been arranged as per the following details:

Name of Student	Ms. / Mr.
Degree	
Day, Date, Time	
Venue	
Thesis Title	
Research Supervisor(s)	
Registration No. with date	
Colloquium No.	

All the faculty members and research students are invited to attend.

Signature of Research Supervisor

Departmental Colloquium In-charge

Colloquium In-charge
Institute of Chemical Technology

Brief Abstract:

Annexure 9: Format of synopsis

First page of synopsis

A synopsis of the thesis entitled

.....
.....(title of thesis).....

to be submitted to the

Institute of Chemical Technology

for the degree of

Doctor of Philosophy (Technology/Science/Pharmacy)

In

.....(subject).....

By

.....(name of student).....

(Reg. No..... Date.....)

Department of

Institute of Chemical Technology
(University under Section 3 of UGC Act 1956)
Matunga, Mumbai – 400 019

1. Introduction (with background work and rationale for the present work)
2. Present work (either as one part or chapter-wise)
3. Materials and methods
4. References

Annexure 10

PROGRESS REPORT OF THE Ph.D. STUDENT

[To be submitted by the student at the conclusion of academic year]

(The progress report shall be submitted by the candidate to the guide accompanied by a report of the work carried out during the period of this report duly signed by the candidate and countersigned by the guide and co-guide, if any. The Supervisor shall fill his part, sign it and get it countersigned by the Head of Department.)

1. Name of student:
2. Subject of research:
3. Area of work and tentative title of Thesis:
4. Department in which work was carried out:
5. Number and date of registration:
6. Fellowship/Designation:
7. Period of report:
8. Name of Guide (and co-guide, if any):
9. Designation of Guide:
10. Department to which guide belongs:
11. Research papers published: (enclose copies)
12. Research papers presented in Seminars and conferences:
13. Whether the prescribed course work is completed:
14. Whether tuition fee has been paid till date:

Date: Signature of the Candidate

Remarks of the guide

1. Attendance of student: Satisfactory / Not Satisfactory

2. Progress : Satisfactory / Not Satisfactory

3. Expected time of completion:

4. Additional remarks of the Guide, if any:

Date :

Signature of Guide

Place: Signature of the HOD

Annexure 11

PROFORMA FOR EVALUATION OF THE PH.D. THESIS

1. Name of Candidate :
2. Title of the Thesis :
3. Discipline and Subject :
4. Name and Address of the Examiner :
5. Recommendations of the Examiner(Please strike out whichever are not applicable) :

I recommend the thesis for the award of degree of Doctor of Philosophy.

I recommend the thesis for the award of degree of Doctor of Philosophy after clarification of the points raised in the report, at the time of open defense, to the satisfaction of the referee conducting the open defense.

I recommend the thesis for the award of Doctor of Philosophy after making the minor corrections as given in the report and the same be verified and approved by the guide and the referee conducting the open defense.

I do not recommend the thesis for the award of Doctor of Philosophy in the present form as the thesis needs major modifications as suggested in my report. The thesis must be modified in light of these suggestions and refereed back to me for fresh evaluation.

I am not recommending the thesis for the award of degree of Doctor of Philosophy (specific and concrete reasons should be given in the detailed report).

(Note: Please enclose your detailed report on the thesis. Please also enclose a list of questions, if any, to be asked at the open defense)

6. Any other remarks

Place :
Date : (Signature of the Examiner with Designation)
Address:

Annexure 12 Format of the provisional degree certificate

INSTITUTE OF CHEMICAL TECHNOLOGY

(University under Section 3 of the UGC Act 1956)

Matunga, Mumbai-400 019

This is to certify that (Name of the candidate) has been admitted to the degree of **Doctor of Philosophy** (Technology/Science/ Pharmacy), in the subject of , after completing all the requirements of the degree and having been recommended by the duly appointed examiners, to evaluate his thesis entitled , to be qualified to receive the degree. The degree will be conferred formally in the forthcoming convocation of the University.

Date:

Registrar

Place:

Annexure 13: Format of Contents

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	List of publications based on the present work	
	Publications	
	Synopsis	

Annexure 14

Citation style

Citation style should be as given below. However, the students may follow the best practice of the respective subject area.

BOOKS

Book with authors

Beall, H.; Trimbur, J. A. *Short Guide to Writing about Chemistry*, 2nd ed.; Longman: New York, 2001; pp 17-32.

Books with editors

Editors' names can appear in either the author (first example) or the editor position (second example).

Richey, H. G., Ed. *Grignard Reagents: New Developments*; John Wiley & Sons: Chichester, U.K., 2000.
Grignard Reagents: New Developments; Richey, H. G., Ed.; John Wiley & Sons: Chichester, U.K., 2000.

Chapter in an edited book

McBrien, M. Selecting the Correct pH Value for HPLC. In *HPLC Made to Measure: A Practical Handbook for Optimization*; Kromidas, S., Ed.; Wiley-VCH: Weinheim, Germany, 2006; pp 89-103.

Books in a series

Books published in a series may be cited either as a book (first example) or as a journal (second example).

Seeber, G.; Tiedemann, B. E. F.; Raymond, K. N. In *Supramolecular Chirality*; Crego-Calama, M., Reinhoudt, D. N., Eds.; Topics in Current Chemistry 265; Springer: Berlin, Germany, 2006; pp 147-183.

Organic Syntheses and *Inorganic Syntheses*

Cumulative volumes of *Organic Syntheses* are cited as books (first example); annual volumes of *Organic Syntheses* and *Inorganic Syntheses* are often cited as journals (second example).

Organic Syntheses; Wiley & Sons: New York, 2004; Collect. Vol. No. X, pp 437-441.

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Lindén, M.; Schunk, S.; Schüth, F. In *Mesoporous Molecular Sieves 1998*, Proceedings of the 1st International Symposium, Baltimore, MD, July 10-12, 1998; Bonneviot, L., Béland, F., Danumah, C., Giasson, S., Kaliaguine, S., Eds.; Elsevier: Amsterdam, 1998; pp 45-52 (Studies in Surface Science and Catalysis, v117).

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Pere, J. J. *Abstracts of Papers, Part 1*, 223rd National Meeting of the American Chemical Society, Orlando, FL, Apr 7-11, 2002; American Chemical Society: Washington, DC, 2002; CELL30.

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Costello, C. E. Development of "Biomolecule-Friendly" MS Methods. In *PITTCO 2006*, Orlando, FL, March 12-17, 2006 [CD-ROM]; Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy: Pittsburgh, PA, 2007; Session 10, Paper 1.

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Print

TRC Spectral Data—Ultraviolet; Texas A&M University: College Station, TX, Apr 30, 1966; No. 969 (4-Methyl-1-phenyl-3-tiapentane).

Datafromwebsites

National Institute of Advanced Industrial Science and Technology. *Spectral Database for Organic Compounds: SDB*; http://riodb01.ibase.aist.go.jp/sdbs/cgi-bin/cre_index.cgi?lang=eng, No. 2185 (1,2-ethanediol) (accessed March 19, 2007).

Commercialdatabases

Reaxys, version 1.0.5968; Elsevier Properties SA: Frankfurt, Germany, 2010; Reaxys RN 2154 (1,2-benzisoxazole).

SciFinder Scholar, version 2006; Chemical Abstracts Service: Columbus, OH, 2006; RN 50-78-2 (acetylsalicylic acid).

DISSERTATIONS AND THESIS

Print

King, K. J. Development of a Pressurized System for Oxidation Studies of Volatile Fluids. M.S. Thesis, The Pennsylvania State University, State College, PA, March 1983.

Electronic

Abrams, N. M. Efficiency Enhancement in Dye-sensitized Solar Cells through Light Manipulation. Ph.D. Dissertation [Online], The Pennsylvania State University, University Park, PA, December 2005. <http://etda.libraries.psu.edu/theses/approved/WorldWideIndex/ETD->

1061/index.html(accessed Apr2,2007)

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Print

Diagnostic Reagents. Ullmann's Encyclopedia of Industrial Chemistry, 5th ed; VCH: Weinheim, Germany, 1985; Vol. A8, pp455-491.

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Larabee, D. C.; Reynolds, T. Y.; Hochberg, R. B. *J. Med. Chem.*, **2001**, *44*, 1802-1814.

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Vandenabeele, P.; Edwards, H. G. M.; Moens, L. *Chem. Rev.* [Online] **2007**, *107*, 675-686. <http://pubs.acs.org/cgi-bin/article.cgi/chreay/2007/107/i03/html/cr068036i.html>(accessed Mar 19, 2007).

Early access articles

Padwa, A.; Bur, S. K. The Domino Way to Heterocycles. *Tetrahedron* [Online early access]. DOI: 10.1016/j.tet.2007.03.158. Published Online: Apr 3, 2007. http://www.sciencedirect.com/science?_ob=PublicationURL&_tokey=%23TO (accessed Apr 3, 2007) (accepted manuscript, has not undergone final copy editing, typesetting, or proof review).

Padwa, A.; Bur, S. K. The Domino Way to Heterocycles. *Tetrahedron* [Online early access]. DOI: 10.1016/j.tet.2007.03.158. Published Online: Apr 3, 2007. http://www.sciencedirect.com/science?_ob=PublicationURL&_tokey=%23TO (accessed Apr 3, 2007); accepted manuscript, has not undergone final copy editing, typesetting, or proof review.

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Ranguelov, B.; Stoyanov, S. Evaporation and Growth of Crystals—Propagation of Step Density Compression Way at Vicinal Surfaces. 2007, arXiv: physics/0703265. arXiv.org e-Print archive.

<http://www.arxiv.org/abs/physics/0703267>(accessed Apr 3,2007).

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Relevant section in *ACS Style Guide* on p 315. International Chemical Safety Cards can also fit in this format

Ethylene Glycol; MSDS No.E5125 [Online]; Mallenckrodt Baker:Phillipsburg, NJ, Feb 25,1999. <http://www.jtbaker.com/msds/e5125.htm>(accessed July 23,2001).

Ethylene Glycol; ICSC No.0270 (U.S. National Version) [Online]; National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention: Atlanta, GA, 2001. <http://www.cdc.gov/niosh/ipcsneng/neng0270.html>(accessed July 23,2001).

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Sarubbi, D.J.; Leone-Bay, A.; Paton, D.R. Oral Drug Delivery Compositions Comprising Modified Amino Acids and Bioactive Peptides. U.S. Patent 5,792,451, August 11, 1998; *SciFinder Scholar* 1998:542693.

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Sarubbi, D.J.; Leone-Bay, A.; Paton, D.R. Oral Drug Delivery Compositions Comprising Modified Amino Acids and Bioactive Peptides. U.S. Patent 5,792,451, August 11, 1998. United States Patent and Trademark Office Web site. <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOF>(accessed Mar 23, 2007); *SciFinder Scholar* 1998:542693.

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Sarubbi, D.J.; Leone-Bay, A.; Paton, D.R. Oral Drug Delivery Compositions Comprising Modified Amino Acids and Bioactive Peptides. U.S. Patent 5,792,451, August 11, 1998. <http://www.pat2pdf.org/patents/pat5792451.pdf>(accessed Apr 2, 2007); *SciFinder Scholar* 1998:542693.

SCIFINDER SCHOLAR AND OTHER INDEXES

An author may need to cite an abstract from a source rather than the original document. When citing indexes like *SciFinder Scholar* or *PubMed*, the citation to the original publication follows the format for that type of publication (journal articles, patents, books, etc.) and is followed by the citation to the abstract.

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