

DIAT  
Rules and Regulations  
for the Award of the  
Degree of Doctor of Philosophy  
(2016)

Defence Institute of Advanced Technology  
(Deemed to-be-University under section 3 of UGC act 1956)  
Girinagar, Pune -411 025

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## **FOREWORD**

The Defence Institute of Advanced Technology (DIAT), a deemed to be university u/s 3 of UGC act, which found its roots in 1952, has come a long way since then. It moved into its modern campus in 1965, became affiliated to the University of Pune in 1982 for the award of M.E degree to some of its programs, got the status of a deemed university in 1999 and started functioning as an autonomous grants-in-aid institute offering Post Graduate and Ph.D. programs. On April 1<sup>st</sup>, 2006 DIAT became a Deemed to-be-University under section 3 of UGC act 1956.

This is the only technical university under the Ministry of Defence and DRDO which is engaged in imparting training and research in the areas relevant to MoD/DRDO/Defence forces/PSUs and private industries involved in Make-In-India programme of the Prime Minister.

In an institute of higher learning, the Ph.D. program has always a special place. It nourishes the M.Tech. programme and is a reflection of the research activity going on in the institute. It is important to state clearly as, how the Ph.D. program will be conducted, expectations from the students and the faculty, provisions to facilitate the pursuit of PhD and safeguards to be observed are inbuilt to uphold and maintain the standards.

I am happy to see that the booklet on Ph D rules and regulations prepared assiduously by the DRC team fulfills the objective stated above. Although, these rules cover many common and not-so-common situations, the rules may evolve further with time.

January 2016

Dr. S. Pal  
Vice Chancellor DIAT

Prepared by the  
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## 1 Introduction

The Defence Institute of Advanced Technology (Deemed to be University under section 3 of the UGC act 1956) herein after referred to as DIAT (DU) offers research programs in various disciplines leading to the degree of Doctor of Philosophy. The rules and regulations governing eligibility, admission, registration and supervision, submission, evaluation and defence of thesis are given in this booklet. The degree of Doctor of Philosophy (herein after referred to as the Ph.D. degree) of the Institute shall be conferred on the candidates who fulfill the requirements as specified in these rules. The rules presented in this booklet shall be called the Ph.D. Rules and Regulations and shall come into force with effect from 04 January 2016 (i.e. the date of approval of the Academic Council). These supersedes all previous rules and regulations on the subject.

For Institute Ph.D. students, scholarship will be given as per Institute rules. The maximum Ph.D. Institute scholarship student per faculty will be limited to two at any given time. In addition, supervisors can have Ph.D. students from other categories as per Institute rules. In these rules unless the context requires otherwise:

- a) 'Institute', means Defence Institute of Advanced Technology, Deemed to be University
- b) 'Ph.D. degree', means the degree of Doctor of Philosophy
- c) 'Academic Council', means Academic Council of the Institute
- d) 'COE', means the Controller of Examinations of the Institute
- e) 'Rules', means the Ph.D. Rules and Regulations of the Institute
- f) 'DRC', means Doctoral Research Committee of the Institute
- g) 'DRMC', means Departmental Research Monitoring Committee
- h) 'VVC', means Viva-Voce Committee
- i) 'SC', means Scheduled Caste
- j) 'ST', means Scheduled Tribe
- k) 'OBC' means Other Backward Class
- l) 'PWD', means Persons with Disability (Divyansh)
- m) 'Ph.D. Scholar' means Registered Ph.D. students of the institute
- n) 'CGPA' means Cumulative Grade Point Average
- o) 'DGPA' means Degree Grade Point Average
- p) 'VC' means Vice Chancellor

## 2 Eligibility for Admission

2.1 A candidate, seeking admission to the Ph.D. program, shall be required to have passed the qualifying examination securing at least 55% marks or equivalent CGPA/DGPA. The qualifying degrees are:-

- (a) Master of Engineering/Master of Technology (or equivalent) for Ph.D. in Engineering/Science.
- (b) Master in Science (M.Sc. or equivalent) for Ph.D. in Science

- (c) MBA with specialization in Technology Management/ M. Tech in Technology Management.
- (d) B.E. / B.Tech with 10 years of research/industrial experience for Ph.D. In Engineering / Science (this category is only for sponsored candidates)

Note: DIAT reserves the right of enhancement of the minimum eligibility criteria.

2.2 The Institute shall implement the reservation policy in Ph.D. admission in accordance with relevant act of Parliament being in-force from the time.

NOTE: A PWD - (Divyansh) SC/ST/OBC candidate shall not get double benefit of being an SC/ST/OBC as also a PWD candidate.

### 3 List of Disciplines

Presently, Departments offer Ph.D. degree programmes in Engineering, Science, Management and Interdisciplinary areas as follows:-

Discipline	Sub Discipline
(a) Engineering	Aerospace Engineering Computer Science & Engineering Electronics and Communication Engineering Materials Engineering* Materials Science & Chemical Technology* Mechanical Engineering Technology Management
(b) Applied Sciences	Applied Chemistry Applied Mathematics Applied Physics Biosciences & Technology

(\* For candidates with eligibility as mentioned in clause 2.1.a will be given degree in respective faculties)

### 4 Classifications of the Candidates

There shall be four categories of candidates for admission to Ph.D programme as per description below:

- a. Full-time Ph.D. Scholar: A candidate who has been admitted to the Ph.D. program as per Clause 5.2a shall be referred to as a full-time Ph.D. Scholar.
- b. Internal Part-time Ph.D. Scholar: A candidate who has been admitted directly to the Ph.D. program based on the eligibility criteria mentioned in Clause 5.2b (i-v) shall be referred to as an internal part-time Ph.D. scholar.

- c. External Part-time Ph.D. Scholar: A candidate admitted to the Ph.D. program as per Clause 5.2b(vi) shall be referred to as an external part-time Ph.D. Scholar.
- d. Part-time Ph.D. scholar (Self sponsored): A limited number of candidates (keeping in consideration Clause 10.1e) maybe admitted under self sponsored scheme provided he/she fulfils the eligibility criteria as per clause 2 and clear written test and Interview for Ph.D. admission. The fees for such candidate will be decided by the Institute.

## **5 Admission Process**

### **5.1 Application for Admission**

Usually admission will be done in following two semesters of six months each in a year for the Ph.D. program:-

- (a) July Session - July to December
- (b) January Session - January to June [for sponsored only]

A candidate may be admitted to Ph.D. programme at the beginning of any semester, provided the result of the qualifying examination is declared before the commencement of the semester and he/she fulfills the eligibility criteria laid down in these Rules. A candidate shall submit duly filled-in application form to the Registrar/Jt. Registrar (Acad) on or before the last date announced. All applications of the candidates belonging to the categories of the Clauses 4(b) and (c) shall be routed through proper channel.

### **5.2 Mode of Admission**

A candidate who has passed the qualifying examination with the requisite percentage of marks as prescribed in Clause 2 of these Rules and who fulfills any one of the following requirements may be considered for admission to the Ph.D. program:-

- (a) Full Time Students:-
  - (i) A candidate who is qualified in a national level test such as, CSIR/UGC NET, Graduate Aptitude Test for Engineering (GATE), State Level Eligibility Test (SLET), accredited by UGC, Rajiv Gandhi National fellowship, NBHM etc. subject wise and category wise GATE/NET cut off will be decided by DIAT.
  - (ii) A candidate who is a recipient of National Doctoral Fellowship or other fellowships from government/semi-government organizations such as Council of Scientific and Industrial Research (CSIR), University Grants Commission (UGC), INAE, All India Council for Technical Education (AICTE), Department of Science and Technology (DST), Dept of Biotechnology (DBT), Defense Research and Development Organization (DRDO), Department of Atomic Energy (DAE) and similar organizations.

- (iii) A candidate who is already registered as a Full Time Ph.D. scholar in some other university and whose supervisor joins this Institute will be permitted to migrate, subject to NOC from his previous institute.
- (iv) A candidate who is sponsored as a full-time scholar by any other university/ institution/ college/ government department/ public sector undertaking/ R & D organization/ private industry, with at least four years of relevant experience and who is relieved on study leave for a period of not less than two years for pursuing Ph.D. program in a Department of the Institute.
- (v) A foreign national who is a recipient of fellowship by Indian Council for Cultural Relations (ICCR), Government of India and who is sponsored by his/her government. A self-financing foreign national after getting approval from the Ministry of External Affairs, MoD/DRDO and No Objection Certificate (NOC) from the Department of Education, Ministry of Human Resources Development, Government of India or admitted under an MoU between DIAT and concerned foreign University.
- (vi) A candidate who is selected under Quality Improvement Program (QIP) of AICTE, Faculty Development Program of a State Government, and so on. (Minimum of three years residency period)

Note: 1. The equivalence of the degree possessed by the foreign candidates belonging to the Clauses 5.2a(v), shall be determined by the Equivalence Committee of the Institute before their admission. They shall be admitted to the Ph.D. program only if the degree possessed by them entitles them for enrollment as Ph.D. scholars in the universities of their own countries.

- (b) For Part time Students (without scholarship)
  - (i) A permanent teacher of the Institute with at least four years of service and who is otherwise eligible.
  - (ii) A non-teaching permanent employee of the Institute with five years experience at DIAT, who is otherwise eligible.
  - (iii) JRF/SRF registered in DRDO Laboratories, who are sponsored by the respective Laboratories. For such candidates, a sponsorship letter is required from the Director of their respective Laboratory.
  - (iv) Project staff (JRF/SRF/PA) working under sponsored projects may be allowed to register for PhD, subject to fulfilling the criteria, prescribed in clause No. 2. If the R&D project funding is over then, the institute funding of stipend may be given subject to qualifying GATE/NET/SLET (scholarship) examination and an interview with DRC. Total funding duration from R&D Project and Institute Scholarship will not exceed five



years. Institute funding shall be as per Institute Rules with no HRA.

(v) A candidate who is sponsored as a part-time candidate by a government department/public sector undertaking/ R & D organization/ private industry and institutions (specified in Annexure - A.), with at least five years of relevant experience, who shall work for his/her Ph.D. in his/her parent organization fulfilling the residency period requirement prescribed in Clause 8.4 of these Rules. The candidate is required to submit a sponsorship and work experience certificate from the parent organization.

(vi) A Senior Scientist 'G' and above in responsible position can also be considered for 'Part time PhD' under Sponsored category.

### **5.3 Admission Procedure:-**

(a) The admission to the Ph.D. program shall be based on a written examination conducted by respective Department followed by a Personal Interview (PI).

A candidate will be required to secure at least 50% in written examination conducted by the department to qualify for the interview. The qualifying marks in respect of the SC/ST, OBC and PWD candidates shall be 45%.

Note: DIAT reserves the right of enhancement of the minimum eligibility criteria. At the time of interview Ph.D. candidates are expected to discuss their research interest/area.

(b) Registrar/Joint Registrar (Acad) shall issue offer of admission to the selected candidates, giving time to selected students for completion of admission formalities.

(c) On receipt of the offer of admission, each selected candidate shall pay the fees as per Institute rule and complete other official formalities pertaining to admission within the stipulated time.

(d) After payment of fees, the candidate shall propose the names of the preferred supervisor/co-supervisor, external supervisor/co-supervisor as the case may be, and the tentative/provisional topic of research to the Head of the Department. An external part-time candidate belonging to Clause 5.2b is required to submit the consent of the proposed external supervisor/co-supervisor along with the above application.

(e) Keeping the candidate's choice in view, the DRMC shall assign a supervisor and a co-supervisor, if required, with their consent (and external supervisor/co-supervisor in the case of an external part-time candidate), to supervise the research work, and allot a topic of research to the candidate which can be pursued in the Department (or in his/her parent institution, in the case of external part-time Ph.D. scholar).

(f) The Registrar/Joint Registrar (Acad) shall send a list of the admitted candidates along with the necessary details to the concerned HoD within a week from the date of

admission.

- (g) A full-time Ph.D. scholar shall not accept any paid assignment apart from the research scholarship during the period of his research.
- (h) A Ph.D. scholar shall not be permitted to join any other degree course.
- (i) Every student shall be required to Re-register by submitting the duly completed Re-registration form along-with proof of payment of Semester Fee (if applicable), by 31<sup>st</sup> Jan for January session & 31<sup>st</sup> July for July session, failing which late fee will be charged (₹ 1000/- for first one month and ₹ 2000/- for second month after two months, beyond which Ph.D. registration may be considered for cancellation) till the submission of the Ph.D. thesis. Along with registration, the candidate will submit a report on the earlier semester work and plan for the ensuing semester.

Note: Part time students under 5.2 (b) - (vi) can be admitted after an interview cum personal discussion with a special committee, headed & constituted by VC to select the topic, guide and evaluate the aptitude and competency for carry out research alongwith the existing responsibility.

## **6 Fees Payable**

Candidates sponsored by the Ministry of Defence shall not be charged any fee for course work, laboratory work or examinations. Fees payable up to submission of thesis by other candidates admitted to the Ph.D. program shall be as prescribed by the Institute from time to time.

## **7 Financial Assistance**

- a) A few selected Ph.D. candidates, who are admitted as full-time Ph.D. students as per Clause 5.2 a(i), will be provided financial assistance up to five years or till the submission of thesis, whichever is earlier as per Institute rules in force from time to time. The Ph.D. students (who are provided Institute fellowship) will be required to assist in research and teaching activities for a maximum of 10 hours per week in addition to their own duties.
- b) In addition to the Ph.D. scholarship, such candidates would be also entitled for contingency grant each year in accordance with the decisions of the Institute.

The contingency grant may be used for the following purpose [with due approval & justification to the competent authority]

- (i) Attending of seminars/symposia/conferences within the country
- (ii) Registration for conferences and seminars
- (iii) Acquisition of books and documents of relevance to the research topic in case these

are not available in the library of the university/college/institution

(iv) Chemicals/consumable items required for the research work

(v) Reprints/off prints of research papers published as an outcome of research  
(Through Library)

(vi) Charges for analysis work got done through RSIC, etc.

(vii) Expenses in connection with the preparation of final technical report (FTR) for the entire period

(viii) Payment towards part-time help, utilized under the scheme

(ix) USB memory device, Journal and expenditure for participating in conferences.

(x) Any other purposes specifically authorized by the institute.

(c) Contingency rules for other type of scholarship candidates will depend on the rules and regulations of the sponsoring agencies.

(d) The maximum duration for which the scholarship, contingency can be provided to Ph.D. student is five years from academic year 2016-17 or submission of Ph.D. Thesis, whichever is earlier.

[Note: Help in teaching & research up to 10.00 hrs per week is mandatory for all research scholars]

## **8 Time Period Requirements**

### **8.1 Minimum period for submission of Thesis:**

(a) The minimum period for submitting the thesis for full-time Ph.D. scholars admitted to the Ph.D. program except those admitted under Clause 5.2(a)(iii) shall be two years from the date of his/her admission.

(b) For the candidates admitted under Clause 5.2(a)(iii), the minimum period for the submission of the thesis shall be one year from the date of his/her joining this Institute. Total period for such candidates shall be atleast two years.

(c) The minimum period for submitting thesis for all part-time candidates shall be three years from the date of admission.

### **8.2 Maximum Period for the Submission of Thesis**

(a) If a candidate (Full-Time or Part-Time Ph.D. Student) fails to submit the thesis at the end of the stipulated five years period, the DRMC, may recommend an extension of up to a maximum period of two years (one year at a time) for submission of thesis. The concerned Ph.D. student must submit their application for extension through his/her supervisor and DRMC for approval of Vice Chancellor. After this the registration will be terminated.

(b) Under extraordinary circumstances, the Vice Chancellor on recommendation of DRMC and DRC may grant a further extension of one year for which the Ph.D.

scholar shall apply giving the reasons due to which he/she was not able to submit the thesis and his/her application is duly forwarded and recommended by the concerned DRMC with proper justification. No further extension shall be given under any circumstances & registration will be treated to be cancelled.

### **8.3 Course Work**

(a) A Ph.D. scholar, admitted to the Ph.D. program in any of the departments shall be required to pursue courses (with prescribed number of credits), appear in the examinations (in those courses) and pass with the prescribed passing criteria. The research scholar shall pursue the courses as advised by his/her Supervisor/Co-supervisor. The course work will be a part of the requirement for the award of the Ph.D. degree.

(b) A minimum of 14 credits (four theory courses of 03 credits each and/or one seminar/laboratory course of 02 credits) must be earned through course work in not more than two semesters by a Ph.D. student. The details of the courses, course credits, passing criteria and other related matters shall be in accordance with the relevant rules of Institute.

(c) Only one course shall be permitted as a self study subject except for the candidates who are in academic/teaching/research profession who shall be permitted to take maximum two courses as self study subjects (Proof to be attached and submitted to CoE). A course can be taken as a self study course if it is available in the Courses of Study book of DIAT. A course which is being offered in the same semester shall not be taken as self study course.

(d) A research scholar shall not take more than one Seminar/Lab as a part of course work. A course on Research Methodology which may include Quantitative Methods and Computer Applications is mandatory for all PhD students (as per para 13 of UGC regulations / 2009, attached here as Appendix B).

(e) Course work for senior scientists (Sc. 'G' and above of DRDO/ISRO/DAE/CSIR etc.) under exceptional circumstances and justifications may be carried out via online tools e.g. Skype/DRONA and Internet. No. of minimum credits have to be 14.

### **8.4 Residency Period**

(a) A Ph.D. Scholar shall be required to be present in the Institute for a prescribed period, which is known as the Residency Period.

(b) For the candidates of all categories except for the external part-time Ph.D. scholars, the residency period shall be the same as the period for the submission of the thesis.

(c ) For a part-time Ph.D. scholar {Clause 5.2 (b)}, the residency period shall be of at least six months duration, or the minimum period required for completing the course work wherever the course work is a part of the Ph.D. program. The residency period can be split in not more than two parts.

(d) For senior R&D Scientists (Scientist G & above and equivalent), residency period can be modified/relaxed based on the recommendation of DRC and approval by VC in exceptional cases, which shall not be in contravention with the provisions under course work.

#### **8.4 Working outside the Institute**

Vice Chancellor may, on the recommendation of DRC and DRMC, permit a full-time Ph. D. student to pursue a part of his/her research work at a place outside the Institute, without exceeding the maximum time limit for the submission of the thesis laid down in these Rules. In such cases the attendance record of the PhD student will be certified by the authorities of the concerned Institute.

#### **8.5 Change of Category**

In the event of a Full Time Research Scholar getting a permanent job outside of the Institute, he/she shall be permitted to change his from Full Time Research Scholar to the External Part-time Research Scholar provided that:

- a. He/she has completed the requirement of course work
- b. He/she has cleared successfully the Comprehensive Examination
- c. He/she submits a No Objection Certificate from his/her employer to the effect that the Research Scholar will be allowed to pursue his Ph.D. work and necessary support will be provided to him/her.

Further he/she shall be governed by rules as applicable to External Part-time Research Scholar and to this end, will need to complete all necessary requirements as applicable to this category. The conversion of Part-time Research Scholar to Full-time Research Scholar (with/without scholarship) will be decided on case-to-case basis, on recommendation of the DRMC (through DRC) by the Vice Chancellor. Fees structure and other rules will be on the lines of a sponsored candidate with no scholarship given by DIAT or other agency.

### **9 Research Committees**

Subject to the general superintendence of the Academic Council, the following Committees shall deal with the matters connected with the Ph.D. program of the Institute in accordance

with these Rules:-

- (a) The Doctoral Research Committee of the Institute (DRC)
- (b) The Departmental Research Monitoring Committee (DRMC)

### **9.1 Doctoral Research Committee (DRC)**

(a) DRC shall be responsible for the overall policy making in respect of admissions, performance evaluation, submission of thesis, examination and other matters related to the conduct of doctoral research programmes of the institute.

The doctoral research programmes at the institute shall be governed by the rules and regulations for the award of degree of Ph.D of the Institute.

(b) The DRC shall be constituted by the Vice Chancellor with at least four faculty members as follows:-

- |       |  |                   |
|-------|--|-------------------|
| (i)   | Dean/Professor   | Chairperson       |
| (ii)  | Two Professors/Associate Professors  | Members           |
| (iii) | One eminent expert from reputed R&D Organisation/Institution/University outside DIAT | Member            |
| (iv)  | One Assistant Professor eligible to be a Supervisor                                  | Members           |
| (v)   | Assistant Professor eligible to be Supervisor  | Member Secretary  |
| (vi)  | Joint Registrar (Acad.)  | Permanent Invitee |

### **9.2 Departmental Research Monitoring Committee (DRMC):**

(a) The DRMC shall operate within the norms prescribed in these rules, directions of the DRC, and UGC Regulations issued from time to time on PhD programmes.

DRMC will allocate the Research Supervisor/s. DRMC will further ratify the research outline and specific course work identified for the Ph.D. student after suggesting modifications to the proposal.

After course work is completed, the DRMC shall conduct comprehensive examination of the student.

The DRMC will continuously monitor the progress at least once in six months (broadly in the months of June and December) and will advise on mid course correction required, if any.

DRMC will consider the requests of their P.D. students such as change of Supervisor/s, extension beyond the stipulated period and so on.

Any deviation/waiver will be given against prior approval of the VC.

(b) The DRMC shall consist of:-

- |     |                        |              |
|-----|------------------------|--------------|
| (i) | Head of the Department | -Chairperson |
|-----|------------------------|--------------|

(If HoD is the supervisor, then the senior-most faculty)

- (ii) All regular faculty members from the same department who are PhD holders - Members
- (iii) Supervisor and Co-Supervisor (if any) -Member(s)
- (iv) One faculty from allied Academic department -Member
- (vi) One of the members from (ii) above will be nominated as PhD Coordinator

## **10 Supervisors and Co-supervisors**

### **10.1 Norms for Recognition of Supervisor/Co-Supervisor**

- (a) The prospective Supervisor/Co-supervisor should have a Ph.D. degree.
- (b) Prospective Supervisor/Co-supervisor should have at least two years post Ph.D. research experience.
- (c) Prospective Supervisor/Co-supervisor should have minimum four published papers in journals of international repute or evidence of leading an established research team.
- (d) The DIAT fellowship student for each supervisor will be restricted to maximum of two at any given time.
- (e) A supervisor shall not have, at any given time, more than five Ph.D. scholars (that includes two Institute scholarship students). However the supervisor (Assistant Professor & Professor level) may have eight students, under exceptional circumstances to be approved by the VC as per UGC rules.
- (f) The supervision of DRDO and other R&D organization sponsored Ph.D. scholars would be primarily done by a DIAT-recognized guide from the parent organization. Internal supervisor shall be from the parent organization. This candidate may not be counted in the quota of the respective DIAT faculty. However the total strength will remain eight (for any category of supervisor).
- (g) A supervisor and student should have a mandatory record of interaction, minimum of three hours per week. It will be the duty of the supervisor to oversee this aspect.

### **10.2 Allotment of Supervisors and Co-Supervisors**

- (a) For each Ph.D. Scholar, a DIAT Faculty (eligible to be Ph.D. supervisor) will be identified as the Ph.D. supervisor (or Co-supervisor) based on research area identified by the student.

(b) Eligibility to be a supervisor:-

(i) A regular faculty of DIAT (after completion of probation period) with a Ph.D. Degree and at least two years post Ph.D. research experience shall be eligible to be a supervisor.

(ii) A DRDO scientist holding a Ph.D. degree shall be eligible to be appointed as the external supervisor [with a due approval by the Vice Chancellor vide a filled form by the Scientist (Annexure H)]

(iii) A non-DRDO scientists and faculty from other institutes with Ph.D. degree will be eligible, on a case to case basis, to be external co-supervisor of DIAT Ph.D. scholar on the specific recommendations of DRC and approval of Vice Chancellor.

(c) An external part-time research scholar shall normally have one supervisor from the Institute for (Internal) and another from the parent organization (External), where the candidate will be carrying out the research work. If there is a need, there can be an internal co-supervisor and an external co-supervisor, from the Institute and the sponsoring organization (where the Ph.D. scholar undertake research) respectively. The internal and external supervisors/co-supervisors shall consult each other in all matters pertaining to the progress of the work of the Ph.D. scholar. The supervisor from the sponsoring organization will be responsible for overseeing and ensuring the completion of candidate's Ph.D. in time.

(d) In the case of an External Part-time Ph.D. scholar, normally both supervisors (Internal or External) should have Ph.D. degree as per norms.

(e) In exceptional case, if a candidate is permitted to do a part of his/her research work at a place outside the Institute for a period of one year or more, the person who will be looking after the research work of the Ph.D. scholar at the outside organization, may be recognized and appointed as an external Supervisor subject to fulfilling eligibility conditions.

(f) If a DRDO scientist deputed to DIAT is a supervisor of the Ph.D. scholar gets transferred to another Laboratory/Establishment, he/she shall be allowed to continue as the external supervisor for the Ph.D. scholar working with him and in such cases an internal supervisor may be identified by the DRMC in consultation with the Ph.D. scholar and external supervisor.

(g) A faculty member who has remaining service of atleast five years can be appointed as a Supervisor (along with another co-supervisor) and can continue to be the supervisor.

(h) A faculty member who is due to retire within next 2 years can be appointed as a



supervisor and can continue to be supervisor even after his/her retirement provided the DRMC and DRC are convinced of his/her availability for continued guidance to the candidate or if he/she is re-employed or appointed as Emeritus, Visiting Professor / Scientist / Fellow on retirement.

- (i) Regular faculty on contract (with minimum period of five years) may be considered for supervision, after completion of one year period (along with a co-supervisor).

**Allotment of Supervisors and Co-Supervisors for DRDO Sponsored Ph.D Candidates:**

If a JRF/SRF from DRDO laboratory, registered for Ph.D at DIAT leaves their home institute, then:

- a) The candidate will be considered in the category of “self-sponsored”.
- b) DRDO Guide should give an undertaking that he/she will support the candidates as his/her Guide till the completion of Ph.D of the candidate.
- c) DIAT will not have a liability to pay the fellowship to that student.
- d) If the candidate joins any DSIR recognised Institute/Industry, he/she can opt an alternate guide from respective organisation/Institute. The alternate guide should give an undertaking that he/she will support the candidate as his/her Guide till the completion of Ph.D of the candidate.
- e) Failing to the points above, the Ph.D would be liable to get cancelled.

(I) New Supervisor:-

- (i) If the supervisor of a candidate proceeds on leave for a period of more than 12 months and if there is no co-supervisor then, the respective DRMC shall appoint a co-supervisor who will look after the interests of the Ph.D. scholar in absence of the Supervisor.
- (ii) If the supervisor of a Ph.D. scholar expires or is terminated from the Institute service, he/she shall cease to be the supervisor.
- (iii) If the supervisor of a Ph.D. scholar is under suspension, he/she shall cease to be the supervisor during the entire period of his/her suspension.
- (iv) If a Faculty, except for the one governed by the Clause 10.2 (i), retires from the Institute service, he/she shall cease to be the supervisor.
- (v) If a Faculty resigns from the Institute service, he/she shall cease to be the supervisor.
- (vi) In all the cases, where the existing supervisor of a Ph.D. scholar ceases to be the supervisor, the DRMC shall appoint the co-supervisor, if any, as the

supervisor of the candidate, provided the co-supervisor is from the same discipline and is otherwise eligible. If there is no co-supervisor for the concerned Ph.D. scholar or the co-supervisor is from a different discipline or if the co-supervisor is not eligible, then the DRMC shall appoint a new supervisor.

(vii) If a Ph.D. scholar applies for a change of supervisor, his/her application will be considered by the concerned DRMC and if found to have merit, a new supervisor shall be appointed in place of the existing one with concurrence of DRC and approval of the VC.

(viii) If a supervisor expresses inability to supervise the research work of a Ph.D. scholar who is registered with him/her, application from the supervisor stating his inability shall be considered by the concerned DRMC and if found to have merit, a new supervisor will be appointed for the Ph.D. scholar in place of the existing one after due concurrence of the DRC and approval of the VC.

### **10.3 Quota of Ph.D. Scholars:-**

(a) The maximum number of Ph.D. scholar, including part time, that can be supervised by a faculty member (who is otherwise eligible as Ph.D. supervisor) at any time will be as per clause 10.1 (d-f).

(b) The teachers of the Institute shall also be permitted to guide Ph.D. scholars admitted in other universities in the country within prescribed quota with concurrence of the DRC and prior permission of the VC.

## **11 Comprehensive Examination**

(a) On the successful completion of the prescribed course work and not exceeding three semesters after joining the Ph.D. programme, the student will have to appear for a comprehensive examination conducted by the DRMC to evaluate his/her background knowledge in the broad area of specialization. DRMC should involve one external expert for this evaluation.

(b) The comprehensive examination will have following two components:-

(i) A Seminar to be presented by the candidate on the topic of research followed by

(ii) A viva-voce examination

(c) The comprehensive Examination will cover the topics in the respective discipline and allied areas.

(d) The DRMC will make a report, evaluating candidate's basic understanding and ability to pursue the line of approach for the proposed Ph.D. programme and award overall grade to the candidate based on the performance in the Comprehensive Examination with following grading(s) for the Candidate:-

(i) Overall average marks more than 80% is graded as Outstanding;

(ii) 70% or above but less than 80% as Very Good;

- (iii) 60% or above but less than 70% as Good;
  - (iv) 40% or above but less than 60% is graded as Average;
  - (v) Less than 40% as Poor.
- (e) A Ph.D. student must secure 60% or more in the comprehensive examination to be declared to have passed.
- (f) If the Ph.D. student first attempt in the comprehensive examination is not successful, one more examination will be conducted after a reasonable time, but not exceeding six months after failing in the first attempt, to be decided by the DRMC with the concurrence of DRC and approval of the VC.
- (g) After the successful completion of the comprehensive examination, the Ph.D. candidate's candidacy for the Ph.D. programme is confirmed, the candidate from then on becomes a confirmed Ph.D. scholar.
- (h) The Ph.D. enrolment will stand cancelled/terminated if the student does not pass the comprehensive examination within two attempts.

## **12 Steps of Evaluation of PhD Students**

### **12.1 Progress Reviews**

- (a) After successful completion of the Comprehensive Examination, the Ph.D. student shall submit a written report, of work done, to the Head of the Department (with a copy to Chairperson DRC, Dean and VC) through the respective Research Supervisor(s), once in every six months (broadly in the months of June and December). The HoD shall forward it to DRC through DRMC along with any observations and comments.
- (b) The Supervisor shall arrange a seminar presentation by the Ph.D. student on his/her half yearly work, before the DRMC. The Seminar will be open to all the faculty members and Ph.D. students of DIAT.
- (c) Following the seminar, the candidate will be graded as follows:-
- (i) OUTSTANDING
  - (ii) VERY GOOD
  - (iii) GOOD
  - (iv) Satisfactory
  - (v) Unsatisfactory
- (d) The Chairman, DRMC will forward the Evaluation Report in the prescribed format to DRC.
- (e) If the performance of Ph.D. student is below Good in the six monthly progress reviews, then he/she shall be required to re-appear for review.
- (f) If the progress of a Ph.D. candidate is rated as unsatisfactory in two reviews during the period of Ph.D. programme, the Ph.D. registration of the candidate will be terminated by the VC on the recommendation of DRMC and DRC.

### **12.2 Thesis Submission**

#### **12.2a Pre-synopsis Seminar**

- i) On completion of the research work for the Ph.D., the supervisor shall organize a pre-

synopsis seminar wherein the Ph.D. scholar shall present his/her work. The DRMC shall assess the work and if not satisfied with the quality of the work, the Ph.D. scholar shall be advised to do further work and deliver a fresh seminar after a definite period specified by the DRMC.

ii) The exact title of the thesis shall be as approved by the DRMC after the pre-synopsis seminar.

iii) If the DRMC is satisfied with the pre-synopsis seminar of the Ph.D. scholar, the chairman of the DRMC shall forward the application of the Ph.D. scholar for submission of the thesis along with a certificate about the completion of the pre-synopsis seminar (Annexure -D) and the exact title of the thesis to the CoE via Joint Registrar (Acad) with due approval of Vice-chancellor.

#### 12.2b Submission of the Thesis

The procedure for submission of the thesis shall be as follows:

i) The Ph.D. scholar is required to submit the thesis within six months from the date of his/her pre-synopsis seminar (without exceeding the maximum time limit for the submission of the thesis as laid down in Clause 8.2), failing which he/she shall be required to deliver a fresh pre-synopsis seminar.

ii) The Ph.D. scholar shall submit the thesis in loose bound form to the COE, duly forwarded by the Head of the Department. The main cover page of the Thesis will only have the Title of the Thesis, Name of the candidate, Year of completion and Name of the Institute.

While submitting the thesis, the Ph.D. scholar shall submit the following:

- a) Four loose bound hard copies and one soft copy (in a CD) of the synopsis of the thesis written in not more than ten pages describing the salient features of his/her investigation.
- b) Four hard copies and one soft copy (in a CD) of the thesis as per the format given in Annexure-B.
- c) A declaration by the candidate as per the format given in Annexure - C.
- d) Course work/ comprehensive exam/ pre-synopsis seminar completion certificate by the Head of the Department as per the format given in Annexure - D.
- e) A course work completion certificate from the COE.
- f) A copyright transfer certificate as per the format given in Annexure- E.

g) Plagiarism certificate

iii) The Ph.D. scholar may submit the copies of the synopsis one month before the submission of the thesis in order to expedite the process of evaluation.

iv) The Ph.D. scholar shall be required to have published in reputed journals, at least two research papers or accepted paper in peer review journals based on his/her research work before submitting the thesis. The publication details of the same shall be attached.

v) The Ph.D. scholar shall also submit one copy each of the thesis and the abstract to the supervisor, co-supervisor, external supervisor and external co-supervisor, as the case may be.

vi) No part of the thesis shall have been submitted for the award of any other degree or diploma of any university.

vii) The thesis shall contain a copyright certificate at the beginning of the thesis on a separate page. A sample copyright format is given below: Copyright Defence Institute of Advanced Technology, Deemed University, India, - (Year). All rights reserved

viii) A thesis once submitted cannot be re-submitted unless when the examiner recommends for the revision of the thesis.

## **13 Examination**

### **13.1 Panel of Examiners:-**

(a) The supervisor(s) of the Ph.D. candidate should recommend a panel of internationally renowned researchers as external examiners for thesis evaluation. The names should be sent to CoE (through respective HoD), in a closed CONFIDENTIAL cover within ten days of the successful completion of Pre-synopsis Evaluation.

(b) The panel shall consist of not more than eight (five from India and three from abroad) experts in the area of the Ph.D. thesis. The panel shall not include the names of the supervisor and co-supervisor, co-authors, or any other faculty/scientists, associated with research, either working in DIAT (DU) or elsewhere.

(c) Complete and current addresses of all the examiners with their e-mail addresses, telephone and FAX numbers shall be provided by the DRMC.

(d) From the panel of external examiners, the VC will choose three names (two from India and one from abroad) as examiners. VC can appoint any other examiner outside the suggested panel.

(e) After receiving acceptance from the examiners, CoE will mail the thesis to the examiners for their evaluation. As far as possible, Panel of examiners will be governed by following guidelines:-

- (i) One expert in the area of the Ph.D. thesis from abroad.
- (ii) Two experts in the area of the Ph.D. thesis from India from reputed Institutes/Universities/ R&D Organizations.
- (iii) Any deviation could be with approval of the VC.

(f) The COE shall get in touch with each examiner via the fastest communication channel (e.g. E-mail, FAX etc), with a copy of the abstract to secure acceptance of the examinership. If however, no information is received from an examiner within three weeks, his/her appointment shall be cancelled and a new examiner shall be appointed from the existing panel of examiners.

### **13.2 Thesis Evaluation**

- (a) The examiner is expected to send the report on the thesis within two months (6-8 weeks) from the date of receipt of the thesis. In case of undue delay in receiving the evaluation report, the CoE, with the approval of the VC, shall appoint another examiner from the standby panel, for evaluating the thesis.
- (b) If an examiner(s) suggests resubmission of the thesis after revision, the Ph. D. student will be allowed to resubmit the thesis within the time stipulated by DRMC.

### **13.3 Examiner's Report**

- (a) The examiner shall be required to give his/her opinion about candidate's ability for critical examination and sound judgment.
- (b) The examiners shall examine the thesis specifically with a view to judge whether the thesis is a piece of research work characterized by:-
  - (i) Discovery of new facts, or
  - (ii) A fresh approach towards interpretation of facts or theories, or
  - (iii) A distinct advancement in the subject, or
  - (iv) Device development/system development.
- (c) The examiners shall submit a report in a prescribed form and shall make one of the recommendations mentioned in Annexure – F.
- (d) If all the examiners recommend acceptance of the thesis for the award of the Ph.D. degree, the thesis shall be accepted.
- (e) If two of the examiners recommend rejection of the thesis for the award of the Ph.D. degree, the thesis shall be rejected.
- (f) If the examiner(s) raise some queries/seek clarifications, the Ph.D.

scholar shall be required to give satisfactory answers to the queries at the time of Viva-Voce.

(g) If one or all the examiners recommend revision of the thesis, the Ph.D. scholar shall resubmit the thesis after revision. If a specific examiner asks for the revised thesis to be referred back to him/her, it shall be sent to him/her. Otherwise the revised thesis shall be assessed by the DRMC for satisfactory compliance of the desired revision.

(h) If the revised thesis is to be referred back to an examiner, the examiner shall submit his report on a prescribed form as given in Annexure - G. The examiner shall recommend the revised thesis to be either accepted or rejected. Then depending on the recommendation of the other examiners, an appropriate action shall be taken.

### **13.4 Viva Voce Examination**

#### **13.4a Examiner's Report**

- a. The examiners shall submit a report in a prescribed form as given in Annexure - F and shall make one of the recommendations mentioned in Annexure - F
- b. If all the examiners recommend acceptance of the thesis for the award of the Ph.D. degree, the thesis shall be accepted.
- c. If two of the examiners recommend rejection of the thesis for the award of the Ph.D. degree, the thesis shall be rejected
- d. If the examiner(s) raise some queries/seek clarifications, the Ph.D. scholar shall be required to give satisfactory answers to the queries at the time of Viva-Voce.
- e. If one or all the examiners recommend revision of the thesis, the Ph.D. scholar shall resubmit the thesis after revision. If a specific examiner asks for the revised thesis to be referred back to him/her, it shall be sent to him/her. Otherwise the revised thesis shall be assessed by the DRMC for satisfactory compliance of the desired revision.
- f. If the revised thesis is to be referred back to an examiner, the examiner shall submit his report on a prescribed form as given in Annexure - G. The examiner shall recommend the revised thesis to be either accepted or rejected. Then depending on the recommendation of the other examiners, an appropriate action shall be taken as per Clauses 13.4a (b), (c), (d), (e) or (g).
- g. If one examiner recommends rejection of the thesis and the others recommend acceptance, then a fourth examiner shall be appointed as per Clause 13.1(e) from the panel of already approved examiners. In such cases, Clause 13.4a (h) shall apply.
- h. The fourth examiner, if appointed, preferably should be an Indian or a foreign expert, depending on whether the thesis was rejected by an Indian or a foreign examiner in the first instance. Once the fourth examiner is appointed, any previous recommendations of the examiner, in whose place the fourth examiner has been appointed, shall become null and void for all purposes.

In case the fourth examiner recommends acceptance or revision of the thesis or asks for

clarifications, then depending on the recommendation of the other examiner (who has not rejected the thesis) an action appropriate to the case mentioned in Clauses 13.4a (b), (d), or (e) shall be taken. In case the fourth examiner recommends rejection of the thesis, his/her recommendation shall be final and the thesis shall be rejected.

### **13.4b Ambiguous Recommendation**

In the case of any ambiguous recommendations by any examiner, the COE shall approach the examiner concerned for a clear recommendation. If a clear recommendation is not forthcoming the matter shall be referred to the DRC for appropriate recommendations to VC.

### **13.4c Viva-Voce**

After the reports from the examiners are received, the COE shall inform the supervisor and co-supervisor (if any) for appropriate action.

- a. If the thesis has been accepted for the award of the degree, the Ph.D. scholar shall be required to defend his/her thesis in a Viva-Voce, before a duly constituted committee hereinafter referred to as Viva-Voce Committee (VVC). The date, time and venue of the Viva-Voce with other necessary details shall be adequately notified so as to enable other faculty members and students to attend it.
- b. The supervisor and the co-supervisor (if any), shall arrange for the Viva Voce of the candidate which shall be openly defended as early as possible and normally within two months from the date of communication to them from the COE for conducting the Viva-Voce.
- c. The VVC shall consist of:

i) Dean / Professor of another Department	Chairman
ii) Head of the dept in which the student is registered	Co-Chairman
iii) Indian examiner who has evaluated the thesis	Member
iv) Supervisor and co-supervisor (if any)	Member/s
v) A faculty member from an allied department	Member
- d. In the case of external part time Ph.D. scholar, the external supervisor and co supervisor, if any, may be invited for the Viva-Voce as examiner(s).
- e. In case of the student registered under the Head of the Department, the next senior-most faculty of the respective Department will work as the Co-Chairman of the VVC.
- f. In the case of non-availability of the Indian Examiner for conducting the Viva-Voce, the Vice Chancellor may appoint another examiner after due consultation with the chairman DRMC of the concerned department.
- g. In the case of inability of the supervisor or co-supervisor to conduct the Viva-Voce due to any reason, the nominee of the DRMC shall arrange to conduct the Viva-Voce. In



such cases, the Ph.D. work shall be deemed to have been carried out under the guidance of the original supervisor/co-supervisor only.

- h. The VVC shall be provided with the reports of all the examiners before the Viva-Voce by CoE.
- i. After the Viva-Voce, the VVC shall discuss and submit a reasonably comprehensive report on the performance of the Ph.D. scholar at the Viva-Voce, including the discussions over various points raised. The VVC shall recommend one of the following:
  - (i) that the degree be awarded,
  - (ii) that the candidate be re-examined in a second Viva-Voce, (iii) that the degree be not awarded and the thesis be rejected
- j. If the VVC recommends that the degree be awarded, the Ph.D. scholar shall submit two black hard-bound copies (with golden embossing) of the thesis incorporating corrections, if any, (along with 2 corresponding soft copy versions of the thesis in CDs), one for keeping in the library of the Institute and the other for the departmental library. The spare loose bound copies of the thesis may be returned to the Ph.D. scholar.
- k. If the VVC recommends for a second viva-voce, it shall be conducted normally after a period of three months but within six months from the date of the first Viva-Voce.
- l. Honorarium as per the rules of the Institute shall be paid to the Examiners for Evaluation of Thesis as well as for participating in the Viva-Voce by the office of CoE.
- m. The travel and logistic arrangements for the external examiners shall be made by CoE.

#### 14 Award of the Degree

- a. The reports of all the examiners and the VVC shall be placed by CoE before the DRC for consideration. In the case of unanimous recommendations to award the Ph.D. degree, the DRC shall approve the award of the Ph.D. degree. In all other cases the DRC shall take its specific decision based on the reports of the examiners as well as the VVC.
- b. After the approval of thesis by the Vice Chancellor, for the award of the degree, the provisional certificate certifying to the effect that the degree has been awarded in accordance with the provisions to the regulations of the UGC, shall be issued to the Ph.D. scholar by the office of Registrar, provided the Ph.D. scholar produces 'No Dues Certificate' in the prescribed form. The Ph.D. scholar shall apply in the prescribed form by paying prescribed fee for the provisional certificate. The date of award of the Ph.D. degree shall be the same as the date of Viva-Voce examination.
- c. The Ph.D. degree certificate shall mention the Institute's name, Student's name, the title of the thesis, and the date of viva-voce. This will be issued after the Academic Council approves the degree and/or during the annual Convocation.
- d. After the approval of the thesis for the award of the degree, the abstract shall be

published in the Abstracts of Accepted Theses for the Ph.D. Degree of the Defence Institute of Advanced Technology.

- e. Once a thesis has been approved for the award of the Ph.D. degree, the Ph.D. scholar shall, in case of publication of the thesis in full or in part, state on the title page that it was a thesis approved for the award of the Ph.D. degree of the Defence Institute of Advanced Technology or based upon that thesis.
- f. Following successful completion of the evaluation process and announcements of the award of PhD, DIAT shall submit a soft copy of the Ph.D. thesis to the UGC within a period of 30 days for hosting the same in INFLBNET.

## **15 Leave and Attendance**

(a) A Ph.D. scholar shall be eligible to avail a leave of 30 days in an academic year. He/she shall not be entitled for any inter-semester breaks, winter and summer vacations. However, he/she is entitled for an additional leave upto 10 days on medical grounds in an academic year. Further, male/female candidates shall be eligible for paternity/maternity leaves / semester break as per the Institute rules, once during their entire tenure as research scholars. The leave shall be granted by the Head of the Department on the recommendation of the Supervisor/co-supervisor.

## **16 Plagiarism**

Plagiarism policy as per appendix B and/or in vogue from time to time at DIAT (DU) will be followed.

## **17 Cancellation of Admission**

The admission of a Ph.D. Ph.D. Scholar shall be cancelled on recommendation of DRC and DRMC and approval of Vice Chancellor in any one of the following eventualities:-

- (a) If the Ph.D. Scholar is absent for a continuous period of four weeks without prior information/sanction of leave.
- (b) If the Ph.D. Scholar fails to renew his/her registration in any semester subject to the provisions contained in these Rules.
- (c) If two consecutive progress reports of the Ph.D. Scholar are not submitted and presented or they are unsatisfactory.
- (d) If the Ph.D. Scholar's Ph.D. plan proposal/research plan proposal seminar is/are not approved even after the submission of revised proposal/revised seminar.
- (e) If the Ph.D. Scholar fails to submit the thesis within the maximum stipulated

time as provided in these Rules.

(f) If the Ph.D. Scholar resigns from the Ph.D. program and the resignation is duly recommended by the Supervisor.

(g) If the Ph.D. Scholar is found involved in an act of misconduct and/or indiscipline and his/her termination has been recommended by the competent authority.

## **18 Conduct and Discipline Rules**

Following rules shall be applicable to all students in the matters of conduct and discipline:

1. Students shall show due respect to the teachers of the Institute, the Wardens of the Hostel and the Administrative Officers of the Institute; proper courtesy and consideration should be extended to the employees of the Institute and of the Hostels. They shall also pay due attention and courtesy to visitors.

2. Students are required to develop a friendly camaraderie with fellow students. In particular, they are expected to show kindness and consideration to the new students admitted to the Institute every year. Law bans ragging of new comers in any form. Acts of ragging will be considered as gross indiscipline and will be severely dealt with.

3. The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures

- Ragging
- Involving Sexual harassment
- Lack of courtesy and decorum; indecent behaviour anywhere within or outside the campus
- Wilful damage or stealthy removal of any property/belongings of the Institute/ Hostel or of fellow students
- Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drug
- Involvement in misuse of internet/e-mail facilities or servers anywhere in the Hostel/Department/Library etc.
- Involvement in any act of misconduct or indiscipline
- involvement in any such activity, which is/amounts to detrimental towards reputation and interests of the Department/Institute
- None payment of re-registration fee/hostel bills or any other dues in time.
- Attendance in the research activities/lectures/workshop and seminar classes during the semester has been unsatisfactory.
- Adoption of unfair means in the examinations

- Mutilation or unauthorized possession of library books
- Noisy and unseemly behaviour, disturbing studies/research of fellow-students.

Commensurate with the gravity of the offence, the punishment may be reprimand, fine, and expulsion from the Hostel, debarment from an examination, rustication for a specified period or even outright expulsion from the Institute.

4. For an offence committed in:

- (a) the Hostel,
- (b) the Department or in a classroom, and
- (c) elsewhere,

The Chairman (PHMC)/Warden, the Head of the Department and the Deans, respectively, shall have the authority to reprimand or impose fine or take any other suitable measure.

5. All cases involving punishment other than reprimand shall be reported to the Vice Chancellor. All major acts of indiscipline, which may have serious implications on the general body of students, and/or which may warrant a uniform and more formalized nature of investigation, shall be decided by the Vice Chancellor.

**19. Procedure & Charges for Issuance of various Certificate:** - The students of Ph.D. programmes should apply for issuing of various certificates and submit to the Academic Section. Those who have lost the original degree certificate shall be required to submit application in the prescribed format along-with affidavit & FIR and prescribed fee. The fees for issue of Certificates /duplicate document shall be as under or as prescribed by the Institute from time to time:

- (a) Bonafide/ Character/ Research Experience Certificate: Rs. 50/- per copy
- (b) Original Transcript: Rs. 300/- for first 5 copies thereafter Rs. 50/- per additional copy.
- (c) Duplicate Degree Certificate: Rs. 1,000/-

## **20. Concluding Remarks**

Any doubt or dispute about the interpretation of these Rules shall be referred to the Vice Chancellor, whose decision shall be final and binding on all concerned. Any deviation from the rules will be approved by Vice Chancellor on case to case basis as per justification and recommendations of DRC.

## **Annexure A**

### **List of Recognized Research Centers**

A partial list:

- a. DRDO labs engaged in science and/or technology
- b. Other laboratories under the Govt. of India or central autonomous bodies, State Government as approved by an appropriate committee of Defence Institute of Advanced Technology
- c. Private institutions/Industries approved by the DRC on a case to case basis

**Format of the Ph.D. Thesis**

The following format may be normally adopted for the Ph.D. thesis:

1. Cover page
2. Inner cover page
3. Undertaking from the candidate
4. Self declaration certificate from the candidate and Certificate from the Supervisor/Co-supervisor/Head of the Department (Annexure -C)
5. Certificate for the completion of course work/comprehensive examination in cases where the course work is a part of Ph. D. program (Annexure - D)
6. Certificate for the successful completion of the pre-submission seminar (Annexure -D)
7. A copyright transfer certificate (Annexure - E)
8. Acknowledgments
9. Contents
10. List of symbols, figures and tables, if any
11. Preface of the thesis
12. Introduction
13. Literature review
14. Chapters covering the work of the candidate
15. Conclusion
16. References
17. Appendices
18. List of papers communicated/accepted/published/presented.

Further A personal profile not exceeding one page with photograph of the candidate, copies of the acknowledgment/acceptance letter in case the papers are communicated/ accepted and copies of manuscripts/reprints of the papers shall be enclosed with the thesis.

**Ph.D. Scholar's Declaration**

I,....., certify that the work embodied in this Ph. D. thesis is my own bonafide work carried out by me under the supervision of ..... and the co-supervision of ..... for a period of ..... from ..... to..... at the Defence Institute of Advanced Technology and .....( enter here, the name of the institute where the work has been carried out in part or in full ). The matter embodied in this Ph. D. thesis has not been submitted for the award of any other degree/diploma.

I declare that I have faithfully acknowledged, given credit to and referred to the research workers wherever their works have been cited in the text and the body of the thesis. I further certify that I have not willfully lifted up some other's work, paragraph, text, data, results, etc. reported in the journals, books, magazines, reports, dissertations, theses, etc. or material available at web-sites and included them in this Ph. D. thesis and cited as my own work.

Date .....

(Signature of the Ph.D. Scholar)

Place.....

(Name of the Ph.D. Scholar)

**Certificate from the Supervisor/Co-supervisor**

This is to certify that the work for thesis entitled “ \_\_\_\_\_ ” reported here has been carried out under our/mine supervision.

(External Co-supervisor’s signature  
Name & Designation)

(External Supervisor’s signature,  
Name & Designation)

(Co-supervisor’s signature.  
Name & Designation)

(Supervisor’s signature.  
Name & Designation)

(Signature of the Head of the Department with seal)



**Completion Certificates**

Course work/Comprehensive Examination/Pre-synopsis Seminar Completion Certificate

This is to certify that Sri/Km./Smt ..... a bonafide Ph.D. scholar of this Department, has successfully completed the course work/ comprehensive examination/ pre-synopsis seminar requirement which is a part of his/her Ph. D. program.

Date:

(Signature of the Head of the Department)

Place : Pune

**Copyright Transfer Certificate**

Title of the Thesis : .....  
Ph.D. Scholar's Name : .....

**Copyright Transfer**

The undersigned hereby assigns to the Defence Institute of Advanced Technology all rights under copyright that may exist in and for the above thesis submitted for the award of the Ph.D. degree.

Signature of the Ph.D. Scholar

Note: However the author may reproduce or authorize others to reproduce material extracted verbatim from the thesis or derivative of the thesis for author's personal use provided that the source and the Institute's copyright notice are indicated.

**Format of Examiner's Report**

Defence Institute of Advanced Technology Deemed University  
Recommendation on Ph. D. Thesis

Name of the Ph.D. Scholar:.....

Title of the Thesis : .....

Please give your specific recommendation by ticking (X) any one of the following. with signature underneath and enclose your detailed report on separate sheet(s) with your signature, name and address.

The thesis be accepted for the award of the Ph. D. degree [ ]

OR

The thesis is acceptable for the award of the Ph. D. degree [ ]  
subject to the clarification of certain points at the time of  
Viva- Voce. (Please enclose the points)

OR

The thesis is not acceptable in the present form but may [ ]  
be accepted subject to modification/clarification/revision.  
(Please enclose your suggestions for modification etc. de-  
sired) After modification the thesis need not be referred back  
to me.

OR

The thesis is not acceptable in the present form but may [ ]  
be accepted subject to modification/clarification/revision.  
(Please enclose your suggestions for modification etc. de-  
sired)After modification the thesis should be referred back  
to me for final assessment.

OR

The thesis be rejected. (Please enclose your comments). [ ]

Place

Signature of the Examiner.

Date

Name and Address of the Examiner

- Encl: (a) Detailed report on separate sheet(s),  
(b) List of points for clarification.  
(c) List of questions to be asked at the time of Viva or oral examinations.

**Format of Examiner's Report on Revised Thesis**

Defence Institute of Advanced Technology (Deemed University)  
Recommendation on Ph. D. Thesis

Name of the Ph.D. Scholar:.....

Title of the Thesis : .....

Please give your specific recommendation by ticking (X) any one of the following. with signature underneath and enclose your detailed report on separate sheet(s) with your signature, name and address.

The thesis be accepted for the award of the Ph. D. degree [ ]

OR

The thesis be rejected. (Please enclose your comments). [ ]

Place

Signature of the Examiner.

Date

Name and Address of the Examiner

Encl: (a) Detailed report on separate sheet(s).

**Annexure H :**  
**Eligibility Form for External Supervisorship for Ph.D. Degree at DIAT (DU)**

**Defence Institute of Advanced Technology (DU), Girinagar, Pune**  
**411 025**

**APPLICATION FORM FOR EXTERNAL SUPERVISORSHIP**  
**(For Ph.D. Programme)**

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1. Name \_\_\_\_\_

2. Address for Correspondence \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Pin code: \_\_\_\_\_

3. Detailed Permanent Address: \_\_\_\_\_  
(If different from 2) \_\_\_\_\_  
\_\_\_\_\_

Pin code: \_\_\_\_\_

4. Contact Detail      Mobile: \_\_\_\_\_  
                                 Office: \_\_\_\_\_  
                                 Residence: \_\_\_\_\_  
                                 Email-Id: \_\_\_\_\_

1. Date of Birth: \_\_\_\_\_

6. Academic Background:

<b>Examination Passed (Start from Graduation)</b> 1	<b>Subject /Subject with Specialization</b> 2	<b>Year of Passing</b> 3	<b>Percentage of Marks</b> 4	<b>Name of the Board/University awarding Degree/Diploma/Certificate</b> 5

7. Employment Record:

<b>Designation</b>	<b>From - To</b>	<b>Classes &amp; Subjects taught (U.G./P.G. level)</b>	<b>Name of the Institution</b>	<b>Permanent/ Temporary</b>

8. Total Teaching/Research Experience post Ph.D. :

9. Present position / Designation :

10. Specialization :

11. Give the details of Research undertaken/completed by you.

(Annexure can be attached in following format)

<b>Title of Project/Scheme</b>	<b>Funding Agency</b>	<b>Funds received</b>	<b>Date of starting</b>	<b>Date of ending</b>	<b>Worked as Chief Investigator/ Co-investgator etc.</b>

12. Give details of Research Guidance given for M.Phil. and Ph.D. (if any)

(Annexure can be attached in following format)

<b>Sr. No.</b>	<b>Name of student registered under your guidance</b>	<b>Registered for M.Phil./ Ph.D.</b>	<b>Name of the University</b>	<b>Year of Registration</b>	<b>Year of award of Degree</b>	<b>Title of Research</b>	<b>Remarks</b>

13. At present number of students, pursuing Ph.D./M.Phil. under your guidance: -----

14. List of Professional Associations to which you belong (Add extra sheets, if required).

Sr. No.	Name and address of Organisation	Category of Membership	Positions held	Period	
				From	To

15. List of published books. (Annexure can be attached in following format).

Sr. No.	Title of Book	Co-authors if any	Language	Publisher	Year of Publication

16. List of published articles/papers. (Annexure can be attached in following format).

A) Research Articles/ papers published in Journals

Sr. No.	Title of Articles/ Papers published	Co-authors if any	Language	Publisher	Year of Publication



B) Articles Published in Edited Books.

<b>Sr. No.</b>	<b>Editor</b>	<b>Title of Book</b>	<b>Title of the Chapter/Article</b>	<b>Year of Publication with</b>

17. List of Research Papers presented in the seminars/conferences

(Annexure can be attached in following format)

<b>Sr. No.</b>	<b>Title of Article/Papers</b>	<b>Co-authors, If any</b>	<b>Regional/ National/ International</b>	<b>Sponsoring Agency and Date</b>

18. Any other academic or research related information you would like to mention \_\_\_\_\_

(Annexure can be attached, if required)

## **DECLARATION**

I declare that all the information given in this application and its annexure is true to the best of my knowledge and belief.

Place :

Date :     /     /20

(Signature of applicant)

List of Enclosures (Total Nos.....)

- 1.
- 2.
- 3.

## Appendix A

UNIVERSITY GRANTS COMMISSION  
UGC (MINIMUM STANDARDS AND PROCEDURE FOR AWARDS OF M.PHIL/PH.D. DEGREE),  
REGULATION, 2009

New Delhi-110002, the 1st June 2009

F. 1-1/2002 (PS) Exemp.—In exercise of the powers conferred by clause (e) & (g) of sub-section (1) of Section 26 of University Grants Commission Act, 1956 (3 of 1956), the University Grants Commission hereby makes the following Regulations, namely :—

Short Title, Application and Commencement :

1. These regulations may be called University Grants Commission (Minimum Standards and Procedure for award of M.Phil./Ph.D. Degree), Regulations 2009.
2. They shall apply to every University established or incorporated by or under a Central Act, Provincial Act or a State Act, every Institution including a constituent or an affiliated College recognized by the Commission, in consultation with the University concerned under clause (1) of Section 2 of the University Grants Commission Act, 1956, and every Institution deemed to be a University under section 3 of the said Act.
3. They shall come into force with effect from the date of their publication in the Gazette of India.
4. All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall be eligible for conducting M.Phil. and Ph.D. Programmes.
5. Notwithstanding anything contained in these Regulations or any other Rule or regulation, for the time being in force, no University, Institution, Deemed to be University and College/Institution of National Importance shall conduct M.Phil and Ph.D Programmes through distance education mode.

ELIGIBILITY CRITERIA FOR M. PHIL./PH.D. SUPERVISOR

6. All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall lay down the criteria for the faculty to be recognized as Research Supervisor both for M.Phil and Ph.D. Programmes.
7. All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall lay down and decide on annual basis, a predetermined and manageable number of M.Phil and doctoral students depending on the number of the available eligible Faculty Supervisors. A Supervisor shall not have, at any given point of time, more than Eight Ph.D Scholars and Five M.Phil. Scholars.
8. The number of seats for M.Phil and Ph.D. shall be decided well in advance and notified in the University website or advertisement. All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall widely advertise the number of available seats for M.Phil/Ph.D studies and conduct admission on regular basis.

PROCEDURE FOR ADMISSION

9. (i) All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall admit M.Phil doctoral students through an Entrance Test conducted at the level of individual University, Institution, Deemed to be University, College/Institution of National Importance. The University may decide separate terms and conditions for those students who qualify UGC/CSIR (JRF) Examination/SLET/GATE/teacher fellowship holder or have passed M.Phil Programme for Ph.D. Entrance Test. Similar approach may be adopted in respect of Entrance Test for M.Phil Programme.
- (ii) It shall be followed by an interview to be organized by the School/Department/Institution/University as the case may be.
- (iii) At the time of interview, doctoral candidates are expected to discuss their research interest/area.
- (iv) Only the predetermined number of students may be admitted to M.Phil/Ph.D programme.

2-14961/09

- 10 The admission to the Ph.D Programme would be either directly or through M.Phil Programme.
11. While granting admission to students to M.Phil/Ph.D. Programmes, the Department/Institute/School will pay due attention to the National/State Reservation Policy.

#### ALLOCATION OF SUPERVISOR

12. The allocation of the supervisor for a selected student shall be decided by the Department in a formal manner depending on the number of student per faculty member, the available specialization among the faculty supervisors, and the research interest of the student as indicated during interview by the student. The allotment/allocation of supervisor shall not be left to the individual student or teacher.

#### COURSE WORK

13. After having been admitted, each M.Phil/Ph.D student shall be required by the Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance, as the case may be, to undertake course work for a minimum period of one semester. The course work shall be treated as pre M.Phil/Ph.D preparation and must include a course on research methodology which may include quantitative methods and Computer Applications. It may also involve reviewing of published research in the relevant field. The individual Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance, as the case may be, shall decide the minimum qualifying requirement for allowing a student to proceed further with the writing of the dissertation.

If found necessary, course work may be carried out by doctoral candidates in sister Departments/Institutes either within or outside the University for which due credit will be given to them.

#### EVALUATION AND ASSESSMENT METHODS

14. Upon satisfactory completion of course work and research methodology, which shall form part & parcel of M.Phil/Ph.D. Programme, the M.Phil/Ph.D Scholar shall undertake research work and produce a draft thesis within a reasonable time, as stipulated by the Institution concerned.
15. Prior to submission of the thesis, the student shall make a pre-M.Phil/Ph.D presentation in the Department that may be open to all faculty members and research students, for getting feedback and comments, which may be suitably incorporated into the draft thesis under the advice of the supervisor.
16. Ph.D candidates shall publish one research paper in a referred Journal before the submission of the thesis/monograph for adjudication, and produce evidence for the same in the form of acceptance letter or the reprint.
17. The thesis produced by the M.Phil/Ph.D student in the Institutions/Departments and submitted to the University, Institution, Deemed to be University, College/Institution of National Importance, as the case may be, shall be evaluated by at least two experts, out of which at least one shall be from outside the State. It shall be upto the University, Institution, Deemed to be University, College/Institution of National Importance concerned to have one examiner from outside the Country.
18. On receipt of satisfactory evaluation reports, M.Phil/Ph.D students shall undergo a viva voce examination which shall also be openly defended.

#### DEPOSITORY WITH UGC

19. Following the successful completion of the evaluation process and announcements of the award of M.Phil/Ph.D, the University shall submit a soft copy of the M.Phil/Ph.D thesis to the UGC within a period of thirty days, for hosting the same in INFLIBNET, accessible to all Institutions/Universities.
20. Alongwith the Degree, the Degree awarding University, Institution Deemed to be University, College/Institution of National Importance, as the case may be, shall issue a Provisional Certificate certifying to the effect that the Degree has been awarded in accordance with the provisions to these Regulations of the UGC.

R. K. CHAUHAN  
Secy., U.G.C.

## **Appendix B: Plagiarism Policy of DIAT (DU)**

### **Preamble:**

Ethical values of researchers and teachers are very important components of their activities. Profession of teaching is a noble profession which is based on high moral values. Copying others work for teaching or research is highly unethical which affect the individual as well as the institute and future generation Few times it has been observed that some of the academicians knowingly or inadvertently publish or present other`s work as their own. It is therefore required for DIAT to have a policy on plagiarism in place to prevent occurrence of such incidence.

### **Definition of Plagiarism:**

Plagiarism is broadly defined as claiming others work as own work. This may include copying or reproducing other`s work without the acknowledgement of the source or reproducing exact text with acknowledge.

Plagiarism involves copying of: phrases, clauses, sentences, paragraphs or longer extracts from published or unpublished work (including from the Internet) that exceeds the boundaries of the legitimate cooperation without acknowledgement of the source. Plagiarism could be intentional or non-intentional.

### **There are broadly two types of Plagiarism:**

#### **a) Negligent plagiarism:**

Negligent plagiarism means innocently or carelessly presenting another person`s work as one`s own without acknowledging the Source. It arises from one`s inadequate knowledge and competency in writing. It is also due to careless attitude resulting into non-compliance of standard verification procedures. In this type of plagiarism the degree of copying is not substantial.

#### **b) Dishonest plagiarism:**

Dishonest plagiarism means knowingly and deliberately presenting another person`s work as one`s own work without acknowledging the Source. It involves intentional copying of substantial proportions of the other`s work without written or unwritten permission and also without acknowledging the source.

### **Plagiarism Check:**

A software procured by COE shall be available to all faculty/Ph.D. scholars for checking Plagiarism. It is proposed to permit not more than acceptable level of 20% plagiarism in line with the University of Pune. The 20% acceptable limit may still not be acceptable if the pages of other sources are copied. The 20% acceptable limit will be excluding References/ Bibliography etc.

### **Guidelines for action:**

COE will establish through the software whether there is a plagiarism or not, if it is then what is the level. Only those thesis which qualify the above mentioned acceptable limit will be send to

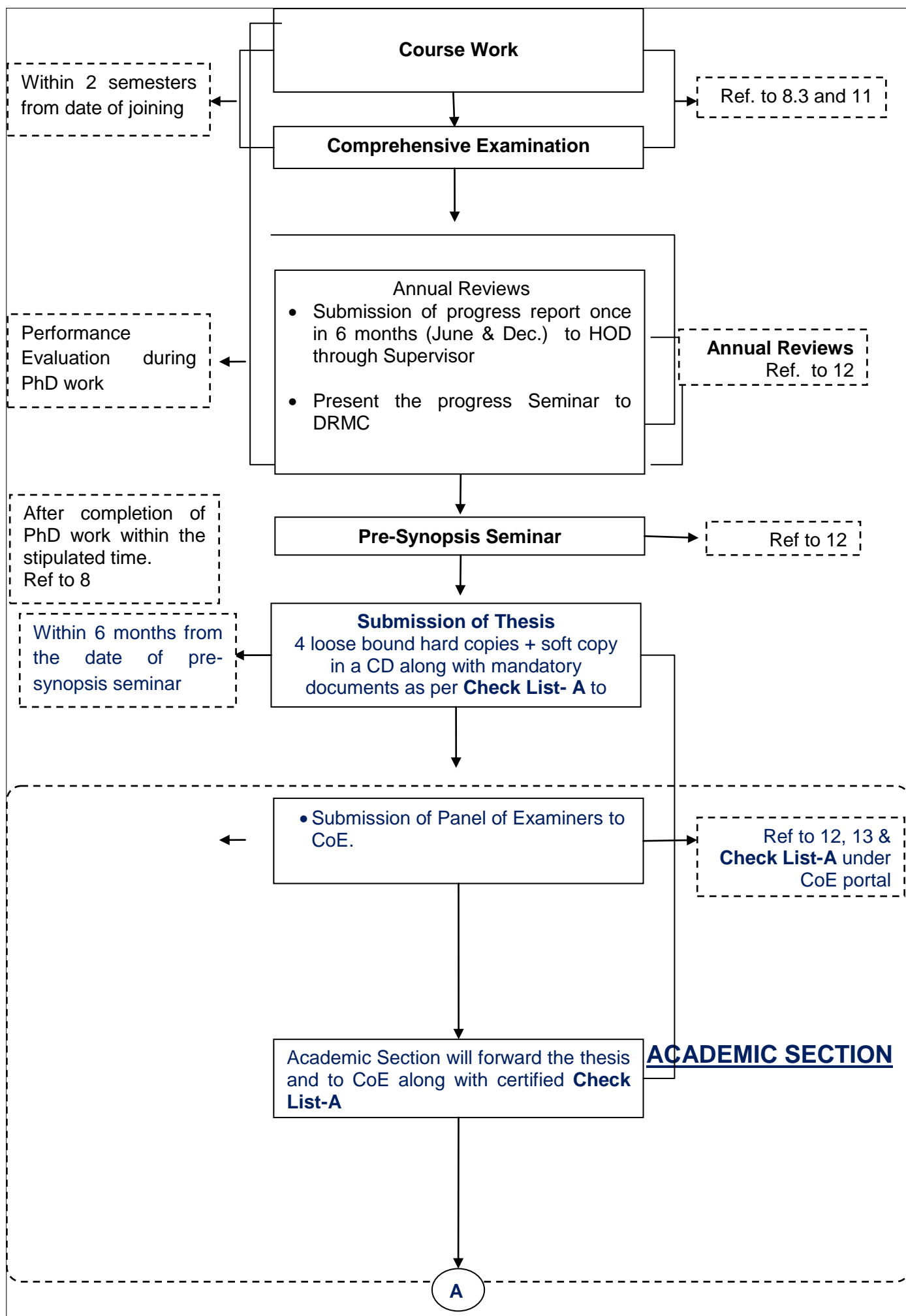
reviewers for thesis evaluation. Those thesis which fail to match the acceptable limit will be send back to the Ph.D. scholar for corrections and resubmission.

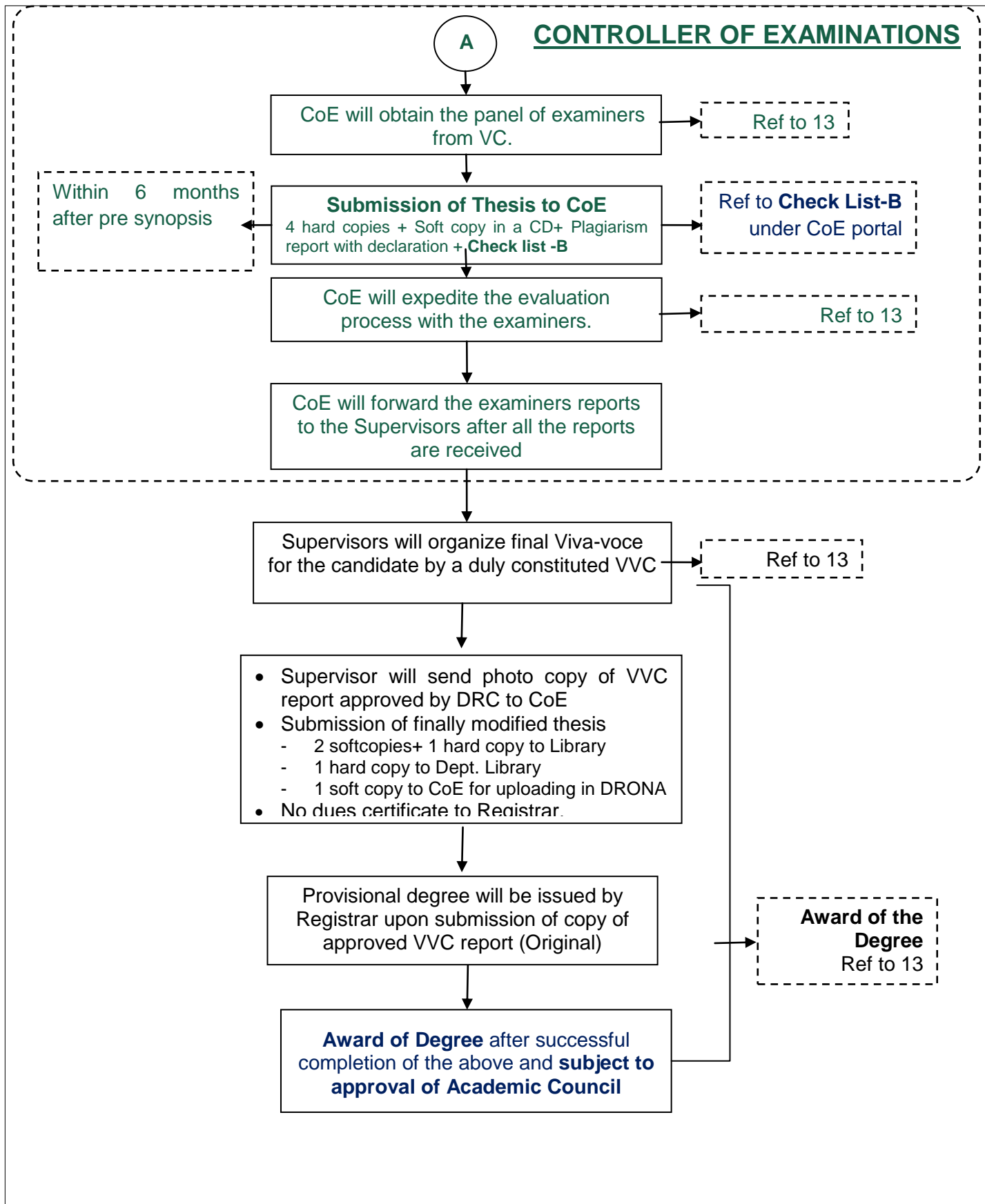
**Allegations of Plagiarism of thesis:**

1. Any complaint received regarding Plagiarism shall be sent to Institute Standing Committee on Plagiarism.
2. The committee may ask for adduce evidence in this regard and conduct an enquiry.
3. Based on the enquiry, the committee may recommend suitable action to be submitted to Vice Chancellor
4. Vice Chancellor in consultation with Academic Council may order enforcement of the actions suggested by the Standing Committee.

## Appendix C: Ph.D. Thesis step by step procedure

(Jist of contents 8 - 13 of Rules and Regulations for the Award of the Degree of Doctor of Philosophy, DIAT-2015)





**Note:**

1. Supervisors are advised to read the guidelines thoroughly and adhere to the same to avoid delays in the evaluation process.
2. Any deviation from the above needs the approval of the competent authority.