



INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
(Deemed to be University under the *de novo* Category)

REGULATIONS
(Applicable from 2018 batch)

for
**PhD Program in the Schools of Applied & Interdisciplinary Sciences, Biological Sciences,
Chemical Sciences, Materials Sciences, Mathematical & Computational Sciences, and Physical
Sciences**

General: The regulations herein shall apply to the PhD Program in the Schools of Applied & Interdisciplinary Sciences, Biological Sciences, Chemical Sciences, Materials Sciences, Mathematical & Computational Sciences, and Physical Sciences at the Indian Association for the Cultivation of Science (IACS). These regulations will come into effect from the Academic Year 2018-19. The Academic Council makes this Regulation in exercise of the power conferred upon it by the Governing Council of IACS.

Definitions of Terms used:

- *Institute* means Indian Association for the Cultivation of Science (IACS).
- *Academic Council* means the Academic Council of IACS.
- *Program* means PhD Program under different schools of IACS.
- *UGC Guideline* means 'University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, 2016'.
- *Academic Year:* Two consecutive (one odd + one even) semesters constitute one academic year. The odd (autumn) semester may be scheduled from August to December and even (spring) semester from January to May. The Academic Council shall frame an academic calendar for the purpose.
- *Courses* indicate the subjects prescribed in each semester of the Program.
- *Course Instructor* is A Faculty Member of IACS or any person engaged by IACS following the UGC guideline for teaching a Course.

- *Research Supervisor*: All permanent Faculty Member of IACS shall be able to supervise PhD students.
- *L and T* mean contact hours for lectures and tutorial per week, respectively. “*P*” means contact hours for practical/laboratory per week.
- *Credit* of a course is determined on the basis of quantum of contents (syllabus) prescribed for a course and the number of hours of instruction required per week decide on the *Credit* of a course.
- *Degree* means PhD (Science) degree.
- *Core Committee* means the core committee of a School.
- *RAC* means Research Advisory Committee designated for every PhD student.

1. Admission:

1.1 Admission/Enrollment of every regular full-time PhD students in the PhD program of IACS University would require fulfillment of the criteria laid down in University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, 2016. Only the students who qualify UGC-NET (including JRF)/UGC-CSIR NET (including JRF)/GATE/JEST/equivalent national level examination will be considered eligible to seek admission in the PhD program of IACS. As a Higher Educational Institution (HEI, section 1.2 of UGC guideline) IACS holds the autonomy to decide on the terms and conditions for Ph.D. Entrance Test (section 5.1 of UGC guideline). Accordingly, selection of the regular full-time students will be done on the basis of their academic record, their performance in UGC-NET (including JRF)/UGC-CSIR NET (including JRF)/GATE/JEST/equivalent national level examination, and finally, their performance in the written test and/or interview (section 5.4 of UGC guideline). Relaxation of the selection criteria for the candidates belonging to SC/ST/OBC (non-creamy layer)/Differently-Abled and other categories will be levied according to the norms of UGC and Government of India. The Ph.D. program is intended only for full-time Ph.D. students.

1.2. Intake in the PhD program will be done twice in a year. The selection process should be completed during the period 15-th April – 15-th June for the Odd (Autumn) Semester and during the period 15th November -15-th December for the Even (Spring) Semester.

1.3 The selection of the PhD candidates will be the responsibility of the respective Schools. Respective schools can enjoy certain autonomy in designing their entrance test criteria, keeping in view the guidelines/norms in this regard issued by the UGC.

1.4. The enrollment and admission of the selected students will be done by the Academic Office after being forwarded by the respective office of the School Chair. The final list of students admitted for a School shall be forwarded to the Chair by the Academic Office at least two weeks before the start of a semester. Change of School shall not be generally encouraged once a student is given admission to a PhD program under a School. However, for special cases, a maximum of one time application for change of School may be considered purely on academic basis subject to the recommendation of the Dean (Academic Administration) and approval of the Academic Council.

1.5. Students coming from other Universities shall have to submit migration certificate.

1.6. The admitted candidates shall have to abide by all the applicable rules (including disciplinary) and regulations of IACS. **Each student will be allotted a student's identification number following the format "IACS-Course-Stream-Year of Admission-Three-digit Number". For example, a student joining the PhD program in Biological Sciences in 2018 may have the ID no "IACS-PhD-BIS-2018-001"**

1.7. Admitted students will be eligible to receive fellowship as per the rules of the funding agency and in accordance with the Regulations of the Academic Council of IACS.

1.8. All institute supported PhD students shall be required to serve as a Teaching Assistant for at least two semesters during the tenure of the program.

2. Structure of the Program

2.1. In each School, all applicants appearing for interview will be given the details of various research topics, areas, proposed by various faculty members for Ph.D. programs at the time of interview, so that they will have an opportunity to discuss those topic areas with the respective faculty members and thereafter, indicate their choice in order of preference.

2.2. There shall be a Research Advisory Committee, or an equivalent body for similar purpose as defined in the Statutes/Ordinances of the Institution concerned, for each Ph.D. student which should be constituted at the very beginning. The Research Supervisor of the scholar shall be the Convener of this Committee. The overall constitution of the committee will be as follows:

1. Thesis supervisor/co-supervisor.
2. A faculty member from the school

A faculty member from outside the school is to be decided by the thesis supervisor.

2.3. PhD program shall be for a minimum duration of three years, including course work and a maximum of six years. Extension beyond the above limit requires specific approval by the competent authority of IACS.

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

2.4. Each semester shall consist of 15 weeks of academic activity. The odd (Autumn) semester may be scheduled from August to December and even (Spring) semester from January to May. However, the research work of the PhD student will continue throughout the year. PhD students will however be eligible for leave in accordance with the rules of IACS.

2.5. After enrollment, completing requisite course work credits will be an essential criterion as laid down in section 7 of the UGC guideline. It is mandatory that every PhD student successfully completes the PhD coursework requirement of IACS University. However, the schools can consider special cases and make modifications in the course (not credit) criteria. A minimum of 12 credits is required for PhD students. Students are also permitted to register for more courses over and above 12 credits on the recommendation of the research supervisor/faculty advisor. The course work for the Ph.D program should be normally completed during the initial one or two semesters.

2.6. Transfer of credits is possible, upon assessment by a committee, for students who have already completed equivalent courses in an equivalent program elsewhere.

2.7. The curricula, number and credits of the courses will be designed by the respective School following the basic course structure subject to the approval of the Academic Council from time to time. Details of the courses offered including the course contents shall be made available to the students by the School. Each course/ paper shall have a character code indicating the subject/School, year of study, the semester and the course no. The course code shall follow a uniform pattern: "Subject code-Year of study-Semester (1 for odd/2 for even)-Subject number". The subject codes shall be:

Chemical Sciences (CHS), Physical Sciences (PHS), Biological Sciences (BIS), Material Sciences (MAS), Mathematical and Computational Sciences (MCS), and Applied & Interdisciplinary Sciences (AIS).

For example: a course of Mathematical & Computational Sciences offered to PhD second semester students, the course code might be: MCS-6201

2.8. **A Course Instructor** shall perform the following functions:

(i) Preparing and teaching a course alone or with other faculty members wherever necessary. Maximum two instructors may be allowed for a course.

(ii) Maintaining attendance and performance records of all the students registered for the Course(s) he/she offers.

(iii) Evaluating students' performance through continuous evaluation (internal evaluation).

(iv) Conducting End-semester examination.

v) Involving himself/herself in preparation and moderation of question papers, evaluation, scrutiny and finalization of results of the course(s) etc.

2.9. Every student has to register for the courses he intends to undergo in a semester by applying in the prescribed form duly signed by the candidate and the student advisor. For that purpose, a student may consult with the Research Advisory Committee (RAC). The Academic Office shall enroll the student for the relevant course after duly forwarded by the Chair within the stipulated time notified by the Dean (Academic Affair, PG) in consultation with Academic Coordinator.

2.10. Late Registration may be permitted on recommendation of the Chair of the School up to two weeks after the commencement of the semester. Withdrawal and change from an Elective or an Optional course may be permitted up to two weeks from the date of commencement of classes. Withdrawal and change from a course shall not be permitted for those who take late registration.

2.11. The medium of instruction and examination shall be English.

2.12 Ph.D. courses offered at the IACS University may be made accessible as credit courses to outside students with the approval of the academic coordinator after appropriate screening and upon payment of required tuition fees.

Course structure for the PhD Program (we may discuss this)

First Year

Semester I (July - December)/Odd Semester

<i>Course Number</i>	<i>Course Title</i>	<i>(L+T – P)</i>	<i>(Credit)</i>
	School Core/Elective	4 – 0	4
	Project with seminar/ Research Methodology*	0 – 4	2

Semester II (January - May)/Even Semester

<i>Course Number</i>	<i>Course Title</i>	<i>(L+T – P)</i>	<i>(Credit)</i>
	School Core/Elective	4 – 0	4
	Project with seminar/Research Methodology*	0 – 4	2

* Project with seminar/Research Methodology examination is expected to evaluate the basic knowledge and the preparedness of a student to enter active research.

3. Attendance

3.1. The course instructor shall be responsible for maintaining a record of attendance of students who have registered for the course.

3.2. All course instructors shall intimate the Chair of the School at least fifteen calendar days before the last instruction day in a semester, the particulars of all students who have less than 85% attendance.

3.3. A student who has less than 85% attendance shall not be permitted to sit for the End-semester examination in the course in which the shortfall exists. Provided that it shall be open to the Academic Council/ Competent Authority to grant exemption to a student who has attended a minimum of 75% classes but failed to obtain the prescribed 85% attendance for valid reasons on recommendation of the Chair of the School.

3.4. The Chair of a School shall announce the names of all students who shall not be eligible to take the End-semester examinations in the various courses and send a copy of the same to the Academic Coordinator. Registrations of such students for those courses shall be treated as cancelled and they shall have to repeat the course when it is offered next.

4. Examination

4.1. Examination and evaluation shall be done on a continuous basis, at least three times during each semester. For the purpose of uniformity, particularly for interschool transfer of credits, there shall be a uniform procedure of examination to be adopted by all Schools. The Examination of all courses shall have two parts: a) Internal Assessment b) End Semester Examinations.

4.2. There shall be at least two internal assessments and one End-semester examination in each course during every semester. The result of internal assessment shall be notified by the concerned course instructor(s) within seven days of the examination.

4.3. 50% of the total marks of each course shall be allotted for internal evaluations.

4.4. In internal assessments, one mid-semester examination may be conducted for each course, which shall carry 50% of the total weightage allotted for internal assessment. For the remaining 50% of total weightage for internal assessment, course instructors may employ two or more assessment tools such as, assignments, paper presentation, quiz etc. suitable to the courses. The students are to be informed in advance about the nature of assessment. Students shall have to attend the two internal examinations, failing which they will not be allowed to appear for the End-semester examination.

4.5. Ordinarily, a student cannot repeat internal assessment. However, the Course instructor may arrange for internal assessment beyond the regular schedule under special circumstances as deemed valid by the Course instructor. However, the internal assessment must be completed before the end- semester examinations.

4.6. There shall be one End semester examination carrying 50% weightage in each course covering the entire syllabus of the course. The End semester examination is normally a written/ laboratory-based examination/Project Work/Dissertation.

4.7. The end-semester examination schedule shall be notified by the Academic Coordinator in consultation with the Dean. The date and schedule shall be notified at least fifteen days in advance.

4.8. Course Instructor(s) for each of the theory courses will be the paper-setter and examiner. Questions papers must be submitted in sealed envelope/soft copy to the Academic Coordinator within the stipulated date. In the process, confidentiality must be maintained.

4.9. Moderation of question papers will be done by a committee constituted by Dean in consultation with Academic Coordinator.

4.10. At the end of a semester, each student shall fill-up a Course Evaluation Form for every course taught in that semester.

5. Evaluation

5.1. The Course instructor shall evaluate the answer scripts and submit the marks as well as grades to the Chairperson of the School.

5.2. Before submitting the results to the School, the students will be notified to check their evaluated answer script. Interested students may contact with the respective course instructor during a time window to be notified by the Chair of the School.

5.3. The School/Core Committee shall finalize the results of each examination/semester and send to the Office of the Academic Coordinator for preparation of Grade sheet and declaration of results.

5.4. Project report/ Dissertation shall be evaluated by the RAC.

5.5. Before declaring the results of end semester examinations, the Academic Coordinator shall request a meeting of the Academic Council to scrutinize the results of both internal assessment and end- semester examinations. The Council may seek clarification or call for answer scripts if it feels necessary from the course Instructor(s) concerned in the matters of over marking or under marking during examination(s).

5.6. The Academic Council shall approve the results of the School and recommend for declaration of results by the Dean in consultation with the Academic Coordinator.

6. Grading:

6.1. The relative grading system shall be applied in evaluating performance of the students.

6.2. A candidate shall have to secure at least **P** grade to pass a course taking in and end semester marks together.

6.3. The marks of in-semester examinations obtained shall be carried over for evaluating the grade of a course.

6.4. The following scale of grading system shall be applied to indicate the performances of students in terms of letter grade and grade points as given below:

Grade Point Definition:

Classification	Letter Grade	Range of Marks (out of 100)	Grade Point	Remarks
Outstanding	O	91-100	10	CGPA multiplied by 10 will be the corresponding percentage of marks.
Excellent	A+	81-90	9	
Very Good	A	71-80	8	
Good	B+	61-70	7	
Above Average	B	51-60	6	
Average	C	46-50	5	
Pass	P	40-45	4	

Fail	F	<40	0	
Absent/Incomplete	Ab	-	0	

A **Semester Grade Point Average (SGPA)** will be computed for each Semester and will be calculated as follows:

$$SGPA = \frac{\sum_{i=1}^n c_i g_i}{\sum_{i=1}^n c_i}$$

Where „n“ is the number of courses in a semester, „ c_i “ is the number of credits for a particular subjects, and „ g_i “ is the grade-points carried by the letter corresponding to the grade awarded to the student for the subject.

Beginning semester II, at the end of each semester S, a **Cumulative Grade Point Average (CGPA)** will be computed as follows:

$$CGPA = \frac{\sum_{i=1}^m c_i g_i}{\sum_{i=1}^m c_i}$$

Where „m“ is the total number of subjects from semester I onwards up to and including the semester S, „ c_i “ is the number of credits for a particular subject. „ g_i “ is the grade-point carried by the letter corresponding to the grade awarded to the student for the subject.

SGPA and CGPA will be rounded off to the second decimal place.

The SGPA and CGPA are calculated in consideration of only the credits cleared, i.e. Grade F credit is not included for the calculation.

SGPA would indicate the performance of the student in the semester to which it refers. CGPA would indicate the cumulative performance of the student from the semester I up to the end of the semester to which it refers.

6.5. If a student obtains F grade in a course, she/he can appear for a re-examination following the prescribed rules of IACS. There will also be provision for re-evaluation (review) of the answer scripts of theoretical papers following the rules of IACS.

6.6. A registered student is required to maintain a minimum Cumulative Grade Point Average (CGPA) of 6.5 during the stage of coursework.

8. Eligibility of a Research Supervisor: Eligibility criteria to be a Research Supervisor, Co-Supervisor, Number of Ph.D. students permissible per Supervisor, etc.

8.1 A regular Faculty Member of IACS can act as a supervisor. However, any independent project investigator may be allowed to act as PI/co-PI based on the approval by competent authority as per relevant academic parameters and prevailing norms. The external supervisors are not allowed. However, Co-Supervisor can be allowed in inter-disciplinary areas from other schools of IACS or from other related institutions with the approval of the Academic Council.

8.3. The allocation of Research Supervisor for a selected research student shall be decided by the School concerned depending on the available specialization among the Supervisors and research interests of the students as indicated by them at the time of interview/selection and the number of students already working with the concerned scientist. All selected students shall be assigned tentatively to research supervisor(s) at the time of selection. The Research Program and the specific area of research of a selected student shall be finalized by his/ her Supervisor (s) after mutual discussion.

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

8.5. Change of Research Supervisor

a) Change of Supervisor(s) under exceptional circumstances shall be permitted on recommendation of the RAC in consultation with the Core Committee of the School where the student had been working before, after obtaining the consent of (i) the student (ii) the present Supervisor(s) and (iii) the proposed Supervisor(s).

b) If the research Program and/ or area of the work requires modification due to this change, the students entire course Program requirement shall be examined by the RAC in consultation with the Dean /Director. If there is a change in the research Program and/or area of the work, the registration date may be revised, if found necessary.

8.6. Arrangement of Temporary Research Supervisor when the Main Supervisor is on leave:

a) Whenever a Supervisor leaves the Institute permanently or temporarily for a period greater than or equal to one year, the school core committee in consultation with Chair/Dean shall provide new supervisor(s) for the students being supervised by her/him before her/his departure.

b) Whenever a Supervisor leaves the Institute temporarily for a period less than one year, the core committee in consultation with the Chair shall make an alternate arrangement for the guidance of his/her students.

d) Any such arrangements made shall be forwarded to Dean for prior approval.

9. Evaluation of Progress

Regular reviews and monitoring of student's progress will be carried out by the RAC.

In addition to a yearly presentation to the RAC, a yearly report of the RAC should be submitted by the student to the Dean (Academic) through the School Chair. It is mandatory for the student to send these details to the academic section every year.

The annual RAC report should clearly indicate the progress, particularly the following:

- (i) Thesis proposal status
- (ii) Progress made during the period of the report (iii) Problems/difficulties, if any, including anticipated delays

The above committee (RAC) will evaluate the suitability of the student for doctoral candidacy and will also act as a committee to review progress of research work and make a recommendation for higher value of studentship (where applicable).

10. Other requirements for the Ph.D program

10.1. Comprehensive examination

10.1.1 All registered Ph.D students should take the comprehensive examination after successful completion of the course work and within 2 years from the date of enrollment.

10.1.2 The comprehensive examination is a basic requirement before a student can proceed for registration. Upon passing this exam, the student can be registered and is considered a doctoral candidate. This will constitute the first review. To conduct the comprehensive examination, a board consisting of:

- i) Chairman of the School*
- ii) RAC (Members)
- iii) External Member
- iv) Research supervisor/s

* where the chairman is the research supervisor, he/she will identify another faculty member of the unit. This committee will be constituted by the Dean/Director.

10.1.3 The comprehensive examination will be based on the research initiated by the student within

his/her first 3 semesters, but will not be confined only on the research topic. Judging the development of basic required ideas will also be a criterion.

10.1.4 Students will not be permitted to take the comprehensive examination unless the tuition and other fees as prescribed are paid.

10.1.5 If the student fails in the first attempt, he or she may be allowed to appear once again within two months from the date of the first examination. If the student does not pass in this comprehensive examination either, the student will not be able to proceed for registration. In either case, a detailed report regarding the comprehensive examination should be sent to the academic section.

10.2. PhD Registration

Upon successful completion of course requirements and comprehensive examination within 2 years from the date of joining of PhD, the candidate needs to complete his/her registration for PhD. The JRF to SRF upgradation of the student will be effective from the date of registration or 2 years from date of joining, whichever is later.

In case, the student cannot successfully clear the comprehensive examination or other requirements within 2 years, he/she may complete the requirements within the next one year (i. e, within 3 years of date of joining). In such a case, the registration can be done from the date of successful completion of comprehensive examination and other requirements. JRF to SRF upgradation will be as per rules of the funding agency.

If the student is unable to complete these requirements within 3 years of the date of joining, his/her candidature will be cancelled.

Validity of registration – The validity of registration for a PhD candidate is a total of 6 years from the date of joining at IACS. Under exceptional circumstances, the research advisory committee may recommend extension of the validity of registration for 1+1 year. However, the total duration of validity cannot exceed eight (8)-years from date of joining at IACS in the PhD program. After this duration, the registration will be considered null and void.

10.3 Submission of Synopsis and thesis

10.3.1 To expedite the evaluation of the thesis, a synopsis of the thesis not exceeding two pages is to be submitted by the applicant a maximum of eight weeks in advance of the date of actual submission of the thesis. This facilitates the finalization of the panel of thesis examiners in advance. If there is any delay beyond eight weeks of synopsis submission of the thesis, the School Chair will be requested to advise the academic section immediately.

10.3.2 The applicant for the PhD degree should give an Open Thesis Colloquium on the thesis work before submitting the synopsis. The synopsis should be submitted within two weeks after giving the colloquium; any delay in submission of synopsis will lead to the annulment of the colloquium.

10.3.3 Institute guideline, as issued time to time, should be followed for submission of thesis.

10.3.4 The thesis submitted for the PhD degree should show a substantial contribution to the advancement of scientific and/or industrial knowledge, design or development. It will be evaluated

primarily on the quality and quantity of its contribution to new knowledge interpreted in the widest sense. The thesis should show evidence of critical judgment and good mastery of the background literature of the subject of research, as well as the candidate's capacity to relate his or her specialized research to the broader framework of the general discipline within which it falls.

11 Thesis Evaluation

11.1. Panel of Referees (External Examiners) for Evaluation of Ph.D. thesis

11.1.1 : The Supervisor(s) will recommend to the Dean/Director, a panel of External Examiners (Referees for thesis evaluation) and the names of the Chairperson (2 names) for the Ph.D. Viva-Voce. This list should be submitted along with the synopsis.

The examiners (Referees for thesis evaluation) who are currently evaluating another thesis from IACS should not normally be included in the panel. The thesis supervisor will give at least 6 names of external examiners (with at least 3 names from within India) for review of PhD Thesis. The academic office will request the external examiners to be reviewers for the thesis and after receiving acceptance, the thesis will be sent to examiners. The thesis will be sent to only 2 examiners out of the 6. Soft copy of the thesis will be sent to the examiners. Upon specific request, hard copy of the thesis will be sent to the examiner(s).

11.1.2 : Selection of Examiners for evaluation of Thesis:

A) From the panel of external examiners, the Director/Dean or her/his nominee will choose 2 names. Additional examiners will be contacted, if the need arises. Thesis supervisor will be the another examiner by default.

B) The referees independently should send the thesis evaluation report to the Dean who should be forwarding it to the supervisor. The evaluation includes:

- i) A critical survey and evaluation of the quality and quantity of the work as embodied in the thesis.
- ii) Questions, if any, to be asked or points to be clarified at the viva-voce examination, and
- iii) A definite recommendation as to whether the thesis is acceptable for the award of the degree of Doctor of Philosophy.

C) If a referee in his/her report is not in a position to make a definite recommendation for the award of the degree, he is requested to assist the IACS Academic Council in deciding whether the student is required to:

- i) Make substantial revisions involving rewriting of one or more chapters without, however, doing any further research work.
- ii) Completely rewrite the thesis, if the thesis, though not acceptable in the present form, reveals sufficient quality and quantity of work to warrant the student being given an opportunity for further research work and/or reinterpretation of results.

11.2. Referees Evaluation Reports on PhD Thesis

i) If all 3 the referees recommend acceptance of the thesis as it is (i.e "a"), or with clarifications of minor points at the time of the viva-voce (i.e "b"), the defense can be held directly.

ii) If one or multiple referees recommend minor modifications in the thesis (i.e "c"), the defense can be held after the candidate makes necessary changes in the thesis, which needs to be presented during the viva voce.

iii) If one or multiple the referees recommend major revisions in the thesis (i.e. "d"), the revised thesis should be resubmitted within 6 months after incorporating the revisions to the satisfaction of the

supervisors and internal examiner. This will then be sent for further review.

iv) If one referee recommends rejection (i.e. “e”), an opinion of a third examiner will be sought.

v) If two referees recommend rejection of the thesis, the thesis in the current form is rejected. In such a case, a new thesis may be submitted only once for review, after 1 year and no later than 2 years from the date of intimation by Academic Council, after presenting a pre-synopsis seminar.

Note: The copies of the referee reports will be made available to the supervisor/co-supervisor, who will intimate to the student.

In case of (i) above, the copies of reports will be sent to supervisor(s) and internal examiner simultaneously along with the intimation of defence approval.

In case of (ii) & (iii) above, the copies of both the reports to be sent to Supervisor/Co supervisor for ensuring that all the corrections including minor modifications in the thesis suggested by the external referees have been/will be incorporated. After receiving the response of the Supervisor/Cosupervisor, the reports of the referees and the responses of the Supervisor/Cosupervisor will be sent to an Internal Examiner (to be nominated by the Dean Academic and approved by the Director) to ensure that the corrections including minor modifications, revision suggested by the external referees have been/will be incorporated.

The Supervisor/Cosupervisor and the Internal examiner will submit their response within 7 working days from the date of receipt of the reports/supervisor's response for consideration and approval by the Director/Dean.

The Academic Council, however be the final authority in deciding whether the thesis be accepted for the award of the degree.

11.3. Oral Examination (Thesis Defense)

The entire process of evaluation of Ph.D. thesis will be completed within a period of maximum six months from the date of submission of the thesis. Students are required to take an oral examination on the thesis, after satisfactory reports are received from the examiners. An undertaking to this effect should be submitted along with the thesis. Students are permitted to leave IACS after submission of the thesis, but before taking the oral examination, are required to come for the oral examination at the IACS, when arranged, at their own expense if they are residing/working in India. If the student is not residing in India oral examination can be conducted in online mode. Failure to attend the oral examination in either mode within one year of receipt of reports from external examiners will lead to cancellation of the registration.

11.4. Approval of holding the defense and Board of Examiners for Defense

Director/Dean will approve holding of the viva voce examination (PhD defense) and Board of Examiners for defense.

a) A student whose thesis has been accepted for the award of the Ph.D. degree will defend his/her work at a viva-voce examination conducted by a Board of Examiners at the Institute.

b) An external examiner, from among the approved panel of examiners, is required in the Board of Examiners for the Ph.D. viva-voce examination. However, the external examiner could participate in the examination by means of video conferencing in case he/she is not able to be physically present. The Chairperson of the Ph.D. viva-voce examination panel will certify the acceptance of the Thesis and successful conduct of the Ph.D. viva-voce examination on behalf of the external examiner, when the external examiner participates through video conferencing.

c) The Board of Examiners will be appointed by the Director/Dean shall consists of:

i) A Professor of the Institute, outside the school, as Chairperson

- ii) The research supervisor and co-supervisor (if any)
- iii) One of the external referees, who has reviewed the thesis (failing which a referee from an approved panel).
- d) The Board of Examiners will submit its report in the prescribed form to the Dean (Academic).

11.5. Defense Report

- a) On satisfactory completion of the viva voce examination, the provisional degree may be conferred upon the student after approval by the Chair, Academic Council.
- b) If a thesis has been accepted but the student fails at the viva voce examination, he/she may be permitted by the Academic Council to reappear for viva-voce examination again at a later date. The recommendations of the Board of Examiners conducting the viva-voce examination will be considered in taking a decision in this respect.

11.6. Submission of Final copies of Thesis

- a) After successful completion of the Ph.D. viva-voce examination, the student will submit to the Academic Office the final bound hard copy (and a soft copy) of his/her approved thesis, along with the prescribed form, within 1-week, from the date of defense.
- b) Provisional degree certificate will be issued after receiving the hard copy of the thesis.

12 Award of degree

The Academic Council of IACS will award the PhD degree.

13 Break in studies

13.1. Students can be permitted to break their studies either for medical reasons, if certified by a registered medical practitioner, or for other valid reasons, for a maximum period of one year. This is possible only with the specific prior permission of the Director/Dean upon recommendation of the RAC.

13.2. For accepting job: This option is only available to students who are very close to submitting their thesis. The student should have completed their course work, comprehensive examination, all theoretical and experimental parts of the work and should have commenced the preparation of the thesis. The request has to be accompanied by a clear statement of the status of the research work duly signed by the thesis supervisor and RAC members. The thesis should be submitted within 6 months from the date of commencement of break/resignation from IACS, subject to validity of the PhD registration date. This condition can be relaxed in exceptional cases only with the specific prior permission of the Director/Dean upon recommendation of the research advisory committee.

13.3. Students who are permitted break in studies should pay tuition and other fees as are applicable to regular full-time students to maintain their studentship. No fellowship will be given during this period. In all such cases, validity of PhD registrations will be counted including the duration of break.