



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर  
Indian Institute of Technology Bhubaneswar

No.F: 14-10 / 2009 – Acad /Senate Const.

कार्यालय आदेश सं./ Office Order No. 57 / 2014 dated 11.06.2014

The undersigned is directed to convey that the Senate in its 22<sup>nd</sup> Meeting held on 16<sup>th</sup> May, 2014 (vide Agenda item No. 22.B.A.2) has approved introduction of a Qualifying Examination for the Research Scholars from the Academic Session 2014-15.

A copy of the '*Guidelines on Qualifying Examination (Q-Exam) for Ph. D. Students*' is enclosed.

(बी.के.राय/ B K Ray)

कुलसचिव और सचिव, अभिषद्  
Registrar & Secretary Senate

To

समिति के सभी सदस्यगण/All members of the committee

प्रतिलिपि/ Copy to

1. अध्यक्ष, अभिषद्/ Chairman, Senate
2. अभिषद् के सभी सदस्यगण/All Members of the Senate
3. निदेशक के साचिव/ PS to Director
4. उपनिदेशक के साचिव / PS to Dy. Director
5. कुलसचिव के साचिव / PS to Registrar
6. विशेष कार्याधिकारी (शैक्षणिक) / OSD( Academics)
7. कार्यालय आदेश फ़ाइल / Office order file

*Annexure-2*

**Guidelines on Qualifying Examination**  
**(Q-Exam) for Ph. D. Students**

**IIT Bhubaneswar**  
**2014**

## **1. Introduction:**

The entry into the Institute's Ph. D programme is currently based on the academic records of the candidate and a short examination to test his/her knowledge in the discipline in a general way followed by a brief interview. It, in no way, tests the research aptitude and innovative quality, which are the essential qualities to pursue research. A qualifying examination that could be introduced at the end of the prescribed course work of the student, before the Registration Seminar, stands to be an essential step in evaluating the other important aspects of a successful Ph. D student as described in the Section 2 of this document. Section 3 contains a brief list of the advantages to the various stakeholders of the Institute. A suggested method of conducting such a qualifying examination is described in Section 4.

## **2. Rationale:**

The qualifying examination (Q-Exam) helps in establishing the suitability of the student for the Ph. D. programme. The examination is meant to assess the fundamentals of the student in the broad area of specialization as well as the research temperament of the student. It should be designed to assess sound fundamentals on the basic foundation subjects in the area of interest, deductive reasoning, analytical skills, inclination to pursue independent research, curiosity, scientific attitude, commitment and perseverance.

## **3. Advantages to Stake Holders:**

### *For Student:*

- The student will become stronger in fundamentals.

### *For Faculty Members:*

- Faculty member will get an unbiased and comprehensive opinion about the student's strengths and weaknesses.
- This will enable the faculty member in effectively supporting the student in the weak areas, thereby enhancing the quality of the Ph. D.
- Also, it will help in identifying those students who will become a liability to the Supervisor, School & the Institute, and appropriate action being taken before it becomes too late.

### *For Institute:*

- Identification of Ph. D. students who can do high quality work, thereby enhance the publication record and image of the Institute.

## **4. Process:**

1. The student can take the qualifying examination after completion of the course work assigned by the DSC (Doctoral Scrutiny Committee), as early as 6 months into the program till before the Ph. D. registration seminar.
2. The student may at most attempt to pass the Q-Exam twice, failing which he/she will need to leave the Ph. D. programme or will be given the option to pursue MS degree if it exists.
3. The student must be given notice of the examination at least one month prior to the date of the examination.
4. The School/Centre is to conduct Q-Exams at least once a semester. In the presence of large number of students for a particular specialization or due to lack of availability of subject matter experts, the School/Centre may conduct the examination more than once a semester with prior permission of the Dean (Academic Affairs).

5. The Q-Exam shall comprise of a written component, where at most two problems that test the student's comprehensive understanding on the basic foundation subjects in the broad research area of the student. The DSC should identify at least three (3) basic foundation subjects in the research area of the student and should communicate it to the Dean (Academic Affairs). The written component of the Q-Exam will be conducted by the School on these basic foundation subjects.
6. The School may decide to make this examination an open-book and/or open-reference type examination. The written examination should be of 3 hours duration. The written part of the Q-Exam will be evaluated by one or more members of the evaluation panel (*see below*).
7. The Q-Exam will have two other components; the presentation on his/her solution(s) to the problem(s) (at least 20 mins) as well as an oral examination on the fundamentals of the discipline and student's specified broad area of specialization. The oral examination must be of duration not less than 30 mins.
8. The presentation and oral session shall be conducted on the next day after the written examination.
9. The written examination component, the presentation and the oral session are to carry 60, 20 and 20 marks, respectively, for a total of 100 marks.
10. The qualifying mark for the Q-Exam shall be 65 marks.
11. The School/Centre is to constitute evaluation panels for the Q-Exam. Separate panels for each broad research area of the School/Centre must be setup.
12. The evaluation panel shall not include the supervisor(s) of the student, who is appearing for the Q-Exam. The supervisor(s) must not contribute to the conduction of the written part of the Q-Exam, but should be observer(s) in the presentation and oral interview part of the Q-Exam. The supervisor(s) must in no way encourage or assist the student while observing the presentation and oral component of the Q-Exam.
13. The panel must comprise of at least 2 faculty members of the School in the broad research area of the student, and one faculty member of an alternate specialization, apart from one faculty member from another School nominated by the Dean (Academic Affairs).
14. An additional external panel member as a subject matter expert, nominated by the Dean (Academic Affairs) is a recommended practice, but is optional. In case of non-availability of enough faculty members of the School in the broad research area, this nomination becomes mandatory.
15. For the Q-Exam's written components, the School's faculty members belonging to the broad research area are to give at least two times the number of problem(s) as the number of students appearing in that area.
16. The student is to be given the problem(s) at random. The student may be allowed to choose alternative problem(s) randomly only once in case he/she wishes.
17. The results of the Q-Exam must be communicated to the Academic Section within a week.
18. The student is eligible to go for the Registration Seminar<sup>1</sup> only after he/she is declared to have passed the Q-Exam successfully.

---

<sup>1</sup> The student has to submit a Review Paper on his/her research topic during the Registration Seminar.