Approved in the 13<sup>th</sup> meeting of the Council of Management held on 21<sup>st</sup> December, 2013.

# Ordinances

## ORDINANCE GEN

## 1. Introductory

- 1.1 The word Institute in the Ordinances means Homi Bhabha National Institute.
- 1.2 The abbreviation CI refers to any Constituent Institution of the HBNI.
- 1.3 The academic affairs of the Institute will primarily be conducted by its Academic Council. The constitution and functions of the Academic Council are as defined in the Memorandum of Association (MoA) and the Rules of the Institute.
- 1.4 The Academic Council shall ensure that every Academic Programme leading to the award of a degree/diploma as appropriate to the Programme, conforms to the Ordinances of the Institute.

# 2. Academic Programmes

- 2.1 The Academic Programmes of the Institute shall be:
  - i. Doctor of Philosophy (Ph.D.),
  - ii. Master of Technology (M.Tech.),
  - iii. Master of Philosophy (M.Phil.),
  - iv. Master of Science in Engineering by Research (M.Sc. (Engg)),
  - v. Master of Science (M.Sc.),
  - vi. Post graduate and super-specialty degrees in medicine,
  - vii. Post Graduate Diplomas in various Engineering and Science Disciplines,
  - viii. Post-M.Sc. Diploma in Radiation Protection, and
  - ix. Diplomas in various medical technologies.
- 2.2 Each proposal for introduction of a new Academic Programme at any CI shall be examined by the Academic Council on the recommendation of a Board of Studies and approved if found acceptable from the point of view of its desirability, viability and conformity with the broad objectives set forth in the MoA and the Rules of the Institute.
- 2.3 The curriculum of each Programme or a change therein shall require approval of the Academic Council.
- 2.4 Each CI shall appoint one or more Dean-Academic for interaction with Dean, HBNI. Only an individual who has been recognized by HBNI as a Professor can be nominated as Dean-Academic. If a CI has difficulty in appointing a professor as a dean and desires to appoint an Associate professor as a Dean, it may seek exemption from Director HBNI for doing so and cite reasons for its

decision. A Dean-Academic at a CI shall be referred to as Dean-Academic (name of the CI – discipline). The Directors of all the CIs shall communicate the names of the Deans-Academic at their Institution to the Dean, HBNI and also keep him/her informed whenever any change in a Dean-Academic is made. The Deans-Academic at the CIs will assist Dean, HBNI in getting approvals from statutory bodies for starting any new programme. If a CI decides to appoint more than one Dean-Academic, then one Dean-Academic shall be designated as coordinating Dean-Academic.

- 2.5 A student enrolled in one CI may attend a part of the course work or perform part of the research in another CI or at any other Institute or University with which HBNI has an agreement of cooperation. He/She can have a guide or a co-guide from another CI or an Institute or University with which HBNI has an agreement of cooperation.
- 2.6 Selection of candidates for various Academic Programmes at a CI shall be as per the selection process formulated by the CI. For the Academic Programmes administered directly by HBNI, the selection process could be formulated by HBNI and the words "selection process formulated by CI" in the following ordinances in that case shall be read as "selection process formulated by HBNI".

## 3. Academic Calendar

- 3.1 There will be an academic calendar for every CI of the Institution. The exact dates for important academic events shall be specified in the academic calendar.
- 3.2 The academic session for programmes' other than those for which statutory bodies prescribe specific guideline, will commence around the first working day of August every year. Ph.D. programme can be started from around the first working day of January as well. Each CI will have its own programme for the course work and will convey this to the Dean before the end of March every year. Dean-Academic at a CI will issue a consolidated list of courses available along with the calendar and send a copy to Central Office. Programmes requiring adherence to guidelines of statutory bodies will follow a calendar as prescribed by them.

## Post Graduate Diploma (PGDip) Programmes in various Science and Engineering Disciplines

## 1. Admission

- 1.1 Minimum qualification for admission to the Post Graduate Diploma (PGDip) shall be Bachelor's degree in Engineering/Technology (B.E./B.Tech.) or a Master's degree in Science (M.Sc.) or equivalent degree of a University recognized by the University Grants Commission with minimum 50% marks. However, whenever stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed.
- 1.2 The selection of candidates for admission to PGDip programme in a CI shall be through a selection process formulated by the CI.

## 2. Programme

- 2.1 This programme shall be of one academic year duration. In case any repeat of course work or reexamination is required, it must be completed in no more than two years from the date of admission in the programme.
- 2.2 The PGDip shall comprise course work and/or practicals and/or on the job work experience. The duration of each component of the programme shall be determined by the respective Board of Studies.
- 2.3 The syllabus for the PGDip courses shall be as approved by the Academic Council on the recommendation of the respective Board of Studies.

- 3.1 The Academic Council, on the recommendation of respective Board of Studies, shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Diploma.
- 3.2 The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI. The successful candidates will be awarded Post Graduate Diploma.

## Diploma in Medical Radio-Isotope Technology (DMRIT) and in Fusion Imaging Technology (DFIT) Programme

## 1. Admission

- 1.1 Minimum qualification for admission to the DMRIT and DFIT programmes shall be a Bachelor's degree in Science (B.Sc.) (in Physics, Chemistry, Life Sciences or nuclear medicine) or equivalent degree of a University recognized by the University Grants Commission with minimum 50% marks. However, whenever stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed.
- 1.2 The selection of candidates for admission to DMRIT or DFIT programmes in a CI shall be through a selection process formulated by the CI.

# 2. Programme

- 2.1 This programme shall be of one academic year duration consisting of two semesters. There will be examination at the end of every semester. Mandatory work posting may also be prescribed by a CI for the programme.
- 2.2 The DMRIT or DFIT shall comprise course work and/or practicals and/or on the job work experience. The duration of each component of the programme shall be determined by the Board of Studies in Health Sciences.
- 2.3 The syllabus for the courses shall be as approved by the Academic Council on the recommendation of the Board of Studies in Health Sciences.

- 3.1 The Academic Council, on the recommendation of relevant Board of Studies, shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Diploma.
- 3.2 The maximum period allowed for completing the course excluding mandatory work posting is two years.
- 3.3 The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI. The successful candidates will be awarded Post Graduate Diploma.

## Post M.Sc. Diploma in Radiation Protection (DipRP) Programme

#### 1. Admission

- 1.1 Minimum qualification for admission to the DipRP programme shall be a Master's degree in Science (M.Sc.) in Physics or equivalent degree of a University recognized by the University Grants Commission with minimum 60% marks. However, whenever stipulation by MHRD/UGC/Statutory Authority is higher than 60%, the stipulated % shall be followed.
- 1.2 The selection of candidates for admission to DipRP programme in a CI shall be through a selection process formulated by the CI.

## 2. Programme

- 2.1 This programme shall be of one academic year duration.
- 2.2 The DipRP shall comprise course work and/or practicals and/or on the job work experience. The duration of each component of the programme shall be determined by the Board of Studies in health Sciences.
- 2.3 The syllabus for the DipRP courses shall be as approved by the Academic Council on the recommendation of the Board of Studies in Health Sciences. Considering inter-disciplinary nature of the programme,

- 3.1 The Academic Council, on the recommendation of relevant Board of Studies, shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Diploma.
- 3.2 The maximum period allowed for completing the course is two years.
- 3.3 The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI. The successful candidates will be awarded Post Graduate Diploma.

# Diploma in Radiation Medicine (D.R.M.)

#### 1. Admission

- 1.1 Minimum qualification for admission to the D.R.M. programme shall be M.B.B.S. or equivalent degree of a University recognized by the Medical Council of India with minimum 50% marks. However, whenever stipulation by Statutory Authority is higher than 50%, the stipulated % shall be followed. Specializations and number of seats shall be as approved by the Medical Council of India.
- 1.2 The selection of candidates for admission to the D.R.M. programme in a CI shall be through a selection process formulated by the CI in accordance with the applicable guidelines of the Central Government and the Government of the State where the Institute is located.

## 2. Programme

- 2.1 Normal duration of this programme shall be of two academic years.
- 2.2 The programme shall consist of theory, clinical disciplines, practical training including advanced diagnostic, therapeutic and laboratory techniques. The Curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Health Sciences.
- 2.3 Every student shall be assigned to a guide in accordance with the stipulations of the Medical Council of India. Annual appraisal (both theory and practicals) of the progress (Annual internal assessment) of a student shall be conducted with the assistance of external experts selected by Dean-Academic.

- 3.1 A student shall appear for theory and viva examinations at the ned of two years. If a student fails either in theory or in viva examinations, he/she has to reappear in both theory and viva examinations within the next session.
- 3.2 The maximum period allowed for completing the course is four years.
- 3.3 The Academic Council, on the recommendation of relevant Board of Studies, shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Diploma. The examination result of

all the candidates shall be communicated by the office of the Dean-Academic of the CI to the Dean HBNI for the award of the degree to the successful students.

## M.Sc. (Engg)

#### 1. Admission

- 1.1 The employees recruited through BARC Training Schools located at various places across the country or the Technical Training Programme of IPR within five years preceding the date of application of admission to the M.Sc.(Engg) programme shall be eligible for enrolment in the programme. In addition, the performance of the applicant in the abovementioned training programmes must be above a threshold specified by the Board of Studies in Engineering Sciences.
- 1.2 An employee not falling in the category 1.1 but who possesses (i) B.E./ B.Tech./ M.Sc. or equivalent degree of a recognized university or institute with minimum 50% of marks, (however, whenever the stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed), and (ii) has been screened through by a procedure devised by the CI and approved by the Board of Studies in Engineering Sciences, shall be considered for admission to the M.Sc.(Engg) programme.
- 1.3 The Director of a CI shall constitute standing committee/committees consisting of members recognized as its faculty by HBNI to interview the applicants falling in category 1.1 or 1.2 and, based on their interview performance, make recommendation about the admissibility of the candidate into the programme.
- 1.4 On admission, each student shall be on the rolls of the Board of Studies in Engineering Sciences. The standing committee, by taking into consideration aspects like the aptitude, work experience, courses already studied and the interest of the student, and in consultation with the student, shall identify a topic of research and a guide and, if necessary a co-guide. The guide and, where applicable, co-guide can be from a CI other than the CI where the candidate is enrolled or from an Institution or University with which HBNI has agreement of cooperation.

## 2. Programme

2.1 The programme shall consist of (i) course work as prescribed by the M.Sc.(Engg) Committee (see Clause 3 below), and (ii) research work carried under the supervision of a guide and, where applicable, a co-guide.

- 2.2 Normal duration of the M.Sc.(Engg) programme, including the course work and research, leading to a thesis, shall be two years and six months.
- 2.3 The duration of the course work shall be at least one semester and that of the research work, leading to a thesis, shall be one and a half academic years. For the students admitted under category 1.1, the extent of the course work, including exemption therefrom, will be determined by the M.Sc.(Engg) committee (see Clause 3 below). The exemption from course work may also be considered in case the student has attended courses without getting any degree or has adequate research experience. The admissibility of courses for consideration for exemption shall be decided by the M.Sc.(Engg) Committee (see Clause 3 below). The M.Sc.(Engg) Committee will certify successful completion of course and research work by the student. For valid reasons, the duration of the M.Sc.(Engg) programme can be extended by one year by the M.Sc.(Engg) committee (see Clause 3 below).

# 3. M.Sc.(Engg) Committee

- 3.1 To monitor the progress of a student, the Dean-Academic at the CI, in consultation with the Convener, Board of Studies in Engineering Sciences, shall constitute immediately after his/her admission into the programme, an M.Sc.(Engg) Committee for each student. The composition of each committee shall be as follows:
  - a. A Professor or an Associate Professor shall be the Chairman of the Committee,
  - b. The guide shall be the Convener and, where applicable, co-guide shall be a member,
  - c. One faculty member of the Institute specializing in a domain encompassing the topic of research,
  - d. One faculty member, preferably from any other CI or any other university/institute, in the same or an allied domain as the topic of research.
  - e. A Technology Adviser, if any, shall be a permanent invitee.

(To get guidance on issues related to technology, a student may have a guide and a Technology Adviser. A Technology Adviser will be an individual who has demonstrated abilities in technology development or engineering design in areas related with the research topic of the student.)

- 3.2 The student shall prepare, in consultation with his/her guide, a plan of research work within eight weeks of admission. The M.Sc.(Engg) Committee shall meet as soon as soon the student is prepared to make a presentation of his/her plan of research. In this meeting, the Committee shall approve the topic of research and prescribe the courses to be taken by the student. The Committee might suggest a change in the plan of work or a change in the topic itself. The M.Sc.(Engg) committee can also suggest a change in guide and, where applicable, co-guide.
- 3.3 During the course of his/her project work, the student shall give periodic seminars to the M.Sc.(Engg) committee on the progress of his/her work. The committee shall monitor the progress and advise the student as appropriate including permission for submission of the thesis.

- 4.1 Each student must defend his/her thesis at an oral examination as a requirement in partial fulfillment of the M.Sc(Engg) degree. The M.Sc. (Engg) Committee will function as Thesis Examining Committee and must receive the thesis at least seven working days before the scheduled oral examination. The Committee can ask for more than seven working days, if it deems reasonable or appropriate.
- 4.2 All members of the committee must be present at the examination. Remote video participation is also permitted. Any emergency substitution must be approved by Director of the CI or Dean HBNI. The examination will normally be conducted in the CI where the student is registered.
- 4.3 The examination will have two parts. The part 1 will be open to all students and interested faculty. During this part, the student will make a presentation for 50 minutes and will respond to questions from the audience. After part 1, the audience other than the members of the committee will be excused and during part 2, the members of the committee will ask questions and seek clarifications. After the committee has completed its work to its satisfaction, the student will be excused.
- 4.4 The Thesis Examining Committee will then hold discussion to decide about the thesis. It has the following options.
  - 4.4.1 To accept the thesis without any recommended changes and sign the Report of the Examining committee.
  - 4.4.2 To accept the thesis with recommendations for changes and, except for the Chair, sign the report of the Examining Committee. The Chair will check the thesis after the student resubmits it incorporating the

recommended changes. If satisfied, the Chair will sign the Report of the Examining Committee.

- 4.4.3 To recommend revisions to the thesis and not sign the Report of the Examining Committee until the student has made the changes and submitted the revised thesis for the Thesis Examining Committee's approval. The Thesis Examining Committee members sign the Report of the Examining Committee when they approve the revised thesis.
- 4.4.4 To recommend revisions and convene a second meeting of the Thesis Examining Committee to review the thesis and complete the student's examination.
- 4.4.5 To rule the thesis (including the examination) unsatisfactory. In that circumstance, the student fails.
- 4.5 Following the examination, the Chair must inform the student of the outcome of the examination. The Chair signs the Report of the Examining Committee indicating which of the above alternatives has been adopted.
- 4.6 The student passes if all members of the Thesis Examining Committee accept the thesis (including its examination) as satisfactory. One or more negative votes constitute a failure of the candidate to meet the requirement. In case of failure, the Thesis Examining Committee must specify in detail and in writing the nature of deficiencies in the thesis and/or the oral examination that led to the failure. A second examination may be permitted. If the student fails the second examination or if the second examination is not permitted, the student's admission to the programme is terminated.
- 4.7 Students may present themselves for the examination only twice and the report of the examining committee signed by all members must reach the office of Dean HBNI through Dean-Academic of the CI for the award of the degree.

# M.Tech. Programme

#### 1. Admission

- 1.1 Minimum qualification for admission to the M.Tech. shall be Bachelor's degree in Engineering/Technology (B.E./B.Tech.) or a Master's degree in Science (M.Sc.) of a University recognized by the University Grants Commission with minimum 50% marks. However, whenever the stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed.
- 1.2 Selection of candidates for admission to M.Tech. programme at a CI shall be (i) through a selection process formulated by the CI, (ii) students completing one year course work at the Training School and scoring minimum cutoff marks (Subject wise and Cumulative marks), as decided by the Academic Council for admission in respective programmes, anytime within preceding six months of his/her applying for admission to the programme. This period may be extended to a maximum of one year by the Director on the recommendation of the Director of a CI or head of a unit if warranted by exceptional circumstances.

## 2. Programme

- 2.1 This programme comprises course work followed by a project work, each of duration equivalent to one Academic Year. The maximum period allowed for completing the course work, including re-examination if any, is two years. The students admitted after completion of PGDip of HBNI shall be exempt from full or part of the course work; the extent of exemption shall be decided on the recommendation of the Board of Studies in Engineering Sciences based on the course content of the PGDip. programme attended by the applicant
- 2.2 The Director of the CI shall constitute standing committee/committees to assign project guide and, if necessary, a co-guide and topic of the project to the student. The Committees will consist of members recognized as faculty by HBNI. The project work, to culminate into a thesis, can be taken up only after successful completion of the course work. For valid reasons, the duration of the project work can be extended by the M.Tech committee (see Clause 3 below) normally by one calendar year.

## 3. M.Tech. Committee

- 3.1 To monitor the progress of the students, the Dean-Academic at the CI, in consultation with the Convener, Board of Studies in Engineering Sciences, shall constitute, within four weeks of completion of course work for students under category 1.1 and immediately on admission of a student under category 1.2, an M.Tech. Committee for each student. The composition of each committee shall be as follows:
  - a. A Professor or an Associate Professor shall be the Chairman of the Committee,
  - b. The guide shall be the convener and, where applicable, co-guide shall be a member,
  - c. One faculty member of the Institute specializing in a domain encompassing the topic of research,
  - d. One faculty member preferably from another CI or university/institute.
  - e. A Technology Adviser, if any, shall be a permanent invitee.

(To get guidance on issues related to technology, a student may have a guide and a Technology Adviser. A Technology Adviser will be an individual who has demonstrated abilities in technology development or engineering design in areas related with the research topic of the student.)

- 3.2 The student shall prepare, in consultation with his/her guide, a plan of research work within eight weeks of admission. The M.Tech. Committee shall meet as soon as soon the student is prepared to make a presentation of his/her plan of research. In this meeting, the Committee shall approve the topic of research and prescribe additional courses, if any, to be taken by the student. The Committee might suggest a change in the plan of work or a change in the topic itself. The M.Tech. Committee can also suggest a change in guide and, where applicable, co-guide.
- 3.3 During the course of his/her project work, the student will give periodic seminars to the M.Tech. Committee on the progress of his/her work. The committee shall monitor the progress and advise the candidate as appropriate including permission for submission of synopsis.

- 4.1 Each student must defend his/her thesis at an oral examination as a requirement in partial fulfillment of the M.Tech. degree. The M.Tech. Committee will function as Thesis Examining Committee and must receive the thesis at least seven working days before the scheduled oral examination. The Committee can ask for more than seven working days, if it deems reasonable or appropriate.
- 4.2 All members of the committee must be present at the examination. Remote video participation is also permitted. Any emergency substitution must be approved by Director of the CI or Dean HBNI. The examination will normally be conducted in the CI where the student is registered.
- 4.3 The examination will have two parts. The part 1 will be open to all students and interested faculty. During this part, the student will make a presentation for 50 minutes and will respond to questions from the audience. After part 1, the audience other than the members of the committee will be excused and during part 2, the members of the committee will ask questions and seek clarifications. After the committee has completed its work to its satisfaction, the student will be excused.
- 4.4 The Thesis Examining Committee will then hold discussion to decide about the thesis. It has the following options.
  - 4.4.1 To accept the thesis without any recommended changes and sign the Report of the Examining committee.
  - 4.4.2 To accept the thesis with recommendations for changes and, except for the Chair, sign the report of the Examining Committee. The Chair will check the thesis after the student resubmits it incorporating the recommended changes. If satisfied, the Chair will sign the Report of the Examining Committee.
  - 4.4.3 To recommend revisions to the thesis and not sign the Report of the Examining Committee until the student has made the changes and submitted the revised thesis for the Thesis Examining Committee's approval. The Thesis Examining Committee members sign the Report of the Examining Committee when they approve the revised thesis.
  - 4.4.4 To recommend revisions and convene a second meeting of the Thesis Examining Committee to review the thesis and complete the student's examination.
  - 4.4.5 To rule the thesis (including the examination) unsatisfactory. In that circumstance, the student fails.
- 4.5 Following the examination, the Chair must inform the student of the outcome of the examination. The Chair signs the Report of the Examining Committee indicating which of the above alternatives has been adopted.

- 4.6 The student passes if all members of the Thesis Examining Committee accept the thesis (including its examination) as satisfactory. One or more negative votes constitute a failure of the candidate to meet the requirement. In case of failure, the Thesis Examining Committee must specify in detail and in writing the nature of deficiencies in the thesis and/or the oral examination that led to the failure. A second examination may be permitted. If the student fails the second examination or if the second examination is not permitted, the student's admission to the programme is terminated.
- 4.7 Students may present themselves for the examination only twice and the report of the examining committee signed by all members must reach the office of Dean HBNI through Dean-Academic of the CI for the award of the degree.

## M.Phil. Programme

## 1. Admission

- 1.1 Minimum qualification for admission to the M.Phil. shall be Master's degree in Science (M.Sc.) of a University recognized by the University Grants Commission with minimum 50% marks. However, whenever the stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed.
- 1.2 Selection of candidates for admission to M.Phil. programme at a CI shall be (i) through a written screening test followed by a Selection Interview, (ii) students completing one year course work at the Training School and scoring minimum cutoff marks (Subject wise and Cumulative marks), as decided by the Academic Council for admission in respective programmes, anytime within preceding six months of his/her applying for admission to the programme. This period may be extended to a maximum of one year by the Director on the recommendation of the Director of a CI or head of a unit if warranted by exceptional circumstances.

# 2. Programme

- 2.1 This programme comprises course work followed by a project work, each of duration equivalent to one Academic Year. The maximum period allowed for completing the course, including re-examination if any, is two years. The students admitted after completion of PGDip of HBNI shall be exempt from full or part of the course work; the extent of exemption shall be decided on the recommendation of the concerned Board of Studies based on the course content of the PGDip. programme attended by the applicant.
- 2.2 The Director of the CI shall constitute standing committee/committees to assign project guide and, if necessary, a co-guide and topic of the project to the student. The Committees will consist of members recognized as faculty by HBNI. The project work, to culminate into a thesis, can be taken up only after successful completion of the course work. For valid reasons, the duration of the project work can be extended by the M.Phil committee (see Clause 3 below) beyond one calendar year.

## 3. M.Phil. Committee

- 3.1 To monitor the progress of the students, the Dean-Academic at the CI, in consultation with the Convener, concerned Board of Studies, shall constitute, within four weeks of completion of course work for students under category 1.1 and immediately on admission of a student under category 1.2, an M.Phil. Committee for each student. The composition of each committee shall be as follows:
  - a. A Professor or an Associate Professor shall be the Chairman of the Committee,
  - b. The guide shall be the Convener and, where applicable, co-guide shall be a member,
  - c. One faculty member of the Institute specializing in a domain encompassing the topic of research,
  - d. One faculty member, preferably from any other CI or any other university/ institute, from the same or an allied domain of specialization.
- 3.2 The student shall prepare, in consultation with his/her guide, a plan of research work within eight weeks of admission. The M.Phil. Committee shall meet as soon as soon the student is prepared to make a presentation of his/her plan of research. In this meeting, the Committee shall approve the topic of research and prescribe additional courses, if any, to be taken by the student. The Committee might suggest a change in the plan of work or a change in the topic itself. The M.Phil. committee can also suggest a change in guide and, where applicable, co-guide.
- 3.3 During the course of his/her project work, the student will give periodic seminars to the M.Phil. Committee on the progress of his/her work. The committee shall monitor the progress and advise the candidate as appropriate including permission for submission of synopsis.

# 4. Award of Degree

4.1 Each student must defend his/her thesis at an oral examination as a requirement in partial fulfillment of the M.Phil degree. The M.Phil. Committee will function as Thesis Examining Committee and must receive the thesis at least seven working days before the scheduled oral examination. The

Committee can ask for more than seven working days, if it deems reasonable or appropriate.

- 4.2 All members of the committee must be present at the examination. Remote video participation is also permitted. Any emergency substitution must be approved by Director of the CI or Dean HBNI. The examination will normally be conducted in the CI where the student is registered.
- 4.3 The examination will have two parts. The part 1 will be open to all students and interested faculty. During this part, the student will make a presentation for 50 minutes and will respond to questions from the audience. After part 1, the audience other than the members of the committee will be excused and during part 2, the members of the committee will ask questions and seek clarifications. After the committee has completed its work to its satisfaction, the student will be excused.
- 4.4 The Thesis Examining Committee will then hold discussion to decide about the thesis. It has the following options.
  - 4.4.1 To accept the thesis without any recommended changes and sign the Report of the Examining committee.
  - 4.4.2 To accept the thesis with recommendations for changes and, except for the Chair, sign the report of the Examining Committee. The Chair will check the thesis after the student resubmits it incorporating the recommended changes. If satisfied, the Chair will sign the Report of the Examining Committee.
  - 4.4.3 To recommend revisions to the thesis and not sign the Report of the Examining Committee until the student has made the changes and submitted the revised thesis for the Thesis Examining Committee's approval. The Thesis Examining Committee members sign the Report of the Examining Committee when they approve the revised thesis.
  - 4.4.4 To recommend revisions and convene a second meeting of the Thesis Examining Committee to review the thesis and complete the student's examination.
  - 4.4.5 To rule the thesis (including the examination) unsatisfactory. In that circumstance, the student fails.
- 4.5 Following the examination, the Chair must inform the student of the outcome of the examination. The Chair signs the Report of the Examining Committee indicating which of the above alternatives has been adopted.
- 4.6 The student passes if all members of the Thesis Examining Committee accept the thesis (including its examination) as satisfactory. One or more negative votes constitute a failure of the candidate to meet the requirement. In case of failure, the Thesis Examining Committee must specify in detail and in writing the nature of deficiencies in the thesis and/or the oral examination that led to

the failure. A second examination may be permitted. If the student fails the second examination or if the second examination is not permitted, the student's admission to the programme is terminated.

4.7 Students may present themselves for the examination only twice and the report of the examining committee signed by all members must reach the office of Dean HBNI through Dean-Academic of the CI for the award of the degree.

#### Ph.D. Programme

#### 1. Admission

- 1.1 Minimum qualification for admission to Ph.D. in Engineering Sciences shall be B.E./B.Tech. or equivalent from a recognized university or institute with minimum 50% of marks. However, whenever the stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed. The candidates having M.Sc. or equivalent degree and having aptitude for research in Engineering may also be considered for admission to Ph.D. programme in Engineering Sciences.
- 1.2 Minimum qualification for admission to Ph.D. in Science or Mathematics shall be M.Sc., M.V.Sc, M.Pharm., MBBS, or equivalent from a recognized university or institute with minimum 50% of marks. However, whenever the stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed. The candidates having B.E./B.Tech. or equivalent degree and having aptitude for research in Science or Mathematics may also be considered for admission to Ph.D. programme in Science or Mathematics.
- 1.3 Admission to the Ph.D. programme shall be by interview of the applicants who must have been short listed by a written screening examination approved by the Academic Council.
- 1.4 The CI to which the candidate is admitted for the Ph.D. programme, shall allot each candidate to a mentor or a guide and, if necessary, a co-guide. In case the candidate is assigned only a mentor, his/her guide shall be identified as soon as possible but not later than the end of his/her second year in the doctoral programme. The guide shall be identified by taking into consideration the academic interests of the concerned candidate and the research profile of the CI to which the candidate is admitted. The guide and, where applicable, co-guide could be from any Institute or University with which HBNI has an agreement of cooperation. To get guidance on issues related to technology, a student may have a guide and a Technology Adviser. A Technology Adviser will be an individual who has demonstrated abilities in technology development or engineering design in areas related with the research topic of the student. Only the guide has to have recognition as faculty from HBNI.
- 1.5 To encourage inter-disciplinary research, a candidate may have two guides. The guides could be from different CIs. However, the student will belong to a particular CI.

#### 2. Programme

- 2.1 The Ph.D. programme at each CI shall consist of two components: (i) course work, and (ii) research work leading to a thesis.
- 2.2 The duration of the course work shall normally be not less than one academic year. Wherever necessary, a course or courses may be substituted by one or several term papers on subjects and/or allied subjects so as to ensure that the basic intent of the course work, viz., to make the student acquire broad-based knowledge is met.
- 2.3 In individual cases, having degree such as M.Phil., M.Tech., M.Sc.(Engg), the extent of the coursework or exemption there from shall be decided by the Monitoring/Doctoral Committee/Standing Committee-relevant discipline in the CI (see Clauses 3 and 4 below). The exemption from course work may also be considered in case the candidate has attended courses without getting any degree or has adequate research experience. The admissibility of courses for consideration for exemption shall be decided by the Monitoring/Doctoral Committee. The Monitoring/Doctoral Committee will certify successful completion of course and research work by the candidate.
- 2.4 Having completed the course work successfully, a candidate shall appear for an Oral General Comprehensive Examination to be conducted by the Monitoring/Doctoral Committee. If his/her performance is satisfactory, the Monitoring/Doctoral Committee shall permit the candidate to pursue/continue research towards thesis. Else, it may give specific suggestions and time period (maximum six months) to the candidate for preparation before reappearing for the oral general comprehensive examination. If a candidate fails to qualify in two attempts, his/her registration for Ph.D. shall be cancelled.

In that event, the Monitoring/Doctoral Committee shall prescribe additional requirements to be met by the student to enable him/her to earn a lower degree such as M.Phil./M.Sc.(Engg).

The CIs must ensure that a guide is identified as soon as the candidate qualifies the General Comprehensive Examination.

2.5 The normal period of course work and research from the date of admission to Ph.D. programme shall be 48 months for the candidates with Master's degree or equivalent in Engineering/Technology and 60 months for candidates with Master's degree or equivalent in Science or a Bachelor's degree or equivalent in Engineering/Technology from a recognized Institute or University. The period may be extended up to a maximum of one year by the Doctoral Committee.

Any further extension beyond one year will require approval of the concerned Board of Studies. Minimum period for submission of thesis shall be three years from the date of admission.

## 3. Monitoring Committee

- 3.1 Whenever a guide is not appointed in the beginning, the progress of each student during the course work shall be monitored by a Monitoring Committee to be constituted by the Dean-Academic at the CI within four weeks of joining of the candidate. The Monitoring Committee will function to supervise the progress of the student until such time as a Doctoral Committee (see clause 4 below) is constituted. The constitution of the Monitoring Committee shall be as follows:
  - a. A senior faculty member to be nominated by the CI shall be the Convener,
  - b. Up to two faculty members specializing in an area falling in the domain of the Board of Studies to which the student is enrolled,
  - c. Up to two members from the faculty involved in teaching the courses that the student is attending.
- 3.2 The Committee will mentor the student and evaluate his/her performance until such time as a Doctoral Committee is constituted.

## 4. Doctoral Committee

- 4.1 To monitor the progress of the students, the Dean-Academic at the CI, in consultation with the Convener, concerned Board of Studies, shall constitute a Doctoral Committee for each student as soon as a guide is assigned. The composition of each committee shall be as follows:
  - a. A Professor or an Associate Professor shall be the Chairman of the Committee,
  - b. The guide shall be the Convener and, where applicable, the co-guide shall be a member.
  - c. One faculty member of the Institute specializing in a domain encompassing the topic of research,
  - d. One faculty member from the same or an allied domain of specialization,

e. A Technology Adviser, if any, shall be a permanent invitee.

(To get guidance on issues related to technology, a student may have a guide and a Technology Adviser. A Technology Adviser will be an individual who has demonstrated abilities in technology development or engineering design in areas related with the research topic of the student.)

It would be desirable to have one of the members in category c or d from another CI or any other university/ institute.

- 4.2 The student shall prepare, in consultation with his/her guide, a plan of research work. The Doctoral Committee shall meet as soon as soon the student is prepared to make a presentation of his/her plan of research. In this meeting, the Committee shall approve the topic of research and, in cases where a guide is assigned before the General Comprehensive Examination, prescribe additional courses, if any, to be taken by the student. The Committee might suggest a change in the plan of work or a change in the topic itself. The Doctoral committee can also suggest a change in guide and, where applicable, co-guide and Technology Adviser.
- 4.3 During the course of his/her thesis work, the student will give periodic seminars to the Doctoral Committee on the progress of his/her work. The committee shall monitor the progress and advise the candidate as appropriate including permission for submission of synopsis.

- 5.1 If satisfied with the synopsis, the Doctoral Committee shall permit the candidate to submit the thesis. The thesis examiners will be appointed as per the procedure detailed below:
  - 1. The Dean-Academic of a CI will forward the synopsis and a list of six examiners, as recommended by the Doctoral Committee to the Convener, Board of Studies (BOS) in the relevant discipline.
  - 2. The Convener, BOS-relevant discipline, in consultation with the BOS members will shortlist four examiners, who may or may not be from the

list recommended by the Doctoral Committee. The Convener then will forward both the list of examiners one by the Doctoral Committee and the other by the BOS, to Dean, HBNI.

- 3. The Dean, HBNI after the approval of Director, HBNI will communicate the approved list of examiners to Dean-Academic as well as to the Convener, BOS.
- 4. In case of clarifications, if any, the Dean, HBNI will get back to Convener, BOS. After the clarification, procedure at Sr. No. 3 will be repeated.
- 5.2 The student shall submit to the Dean-Academic `soft` as well as the requisite number (to be specified by the Chairman, Doctoral Committee) of `hard` copies of the thesis within three months of approval of the synopsis by the Doctoral Committee. This time limit may be relaxed by the Dean-Academic in deserving cases. The Dean-Academic shall take the responsibility of forwarding the thesis to first two examiners in the list approved by the Director and monitor subsequent correspondence with them. The Dean-Academic shall also ensure that each examiner's report concludes with specific recommendations that the thesis be (i) accepted, (ii) accepted after revisions, or (iii) rejected.
- 5.3 The examiners are expected to submit their report within eight weeks of the date of receipt of the thesis.
- 5.4 In case of undue delay in receiving the thesis report, the Dean-Academic may approach the person next on the list of examiners to act as an examiner.
- 5.5 In case the thesis is rejected by both the examiners, the registration of the student shall be cancelled.
- 5.6 In case one or both the examiners suggest revisions, the suggested revisions shall be communicated to the candidate and, after having been duly revised, the thesis shall be re-sent to the examiners if so recommended by him/her. Else, the Doctoral Committee will decide about acceptability of the revisions.
- 5.7 In case the thesis is rejected by both the examiners even after revisions are made, the registration of the student shall be cancelled.
- 5.8 If report of only one of the examiners is negative, then the Doctoral Committee can either ignore that report or go for a third opinion.
- 5.9 If the third examiner also declares that the thesis is not acceptable for award of the degree, the student shall be asked to revise it within a time period stipulated

by the Doctoral Committee. The Doctoral Committee shall then take a decision about further processing of the revised thesis.

- 5.10 In case the thesis is accepted for award of the degree, the Doctoral Committee shall act as the viva voce board and conduct the viva voce examination of the student as soon as possible after giving two weeks notice to the student. One of the Thesis Evaluators, as decided by Director, HBNI, shall be a member of the Viva Voce Board. If the Board is satisfied with the performance of the student, it shall sign its report recommending the award of the degree to the student. If the viva voce Board is not satisfied with the performance of the student, it shall fix another date which shall not be earlier than a month after and not later than six months from the date of the first viva. If the performance of the student is unsatisfactory even in the second viva, the matter shall be referred to the Board of Studies for a decision. The viva voce Board, if satisfied with the performance of the award of the degree to the student the performance of the student shall sign its report recommending the award of the degree to the student of the Board of Studies for a decision. The viva voce Board, if satisfied with the performance of the student the performance of the student shall sign its report recommending the award of the degree to the student, the matter shall be referred to the Board of Studies for a decision. The viva voce Board, if satisfied with the performance of the student shall sign its report recommending the award of the degree to the student,
- 5.11 Students may present themselves for oral examination only twice and the report of the viva voce Board signed by all members must reach the office of Dean HBNI through Dean-Academic of the CI for the award of the degree.

# Ph.D. Programme (Integrated Scheme)

## 1. Admission

- 1.1 The minimum qualification for admission to Ph.D. (Integrated Scheme) in Science or Mathematics shall be Bachelor's degree in science/ mathematics/ /statistics /computer science/information technology/Engineering or an equivalent degree of a University recognized by the University Grants Commission with minimum 50% of marks. However, whenever the stipulation by MHRD/UGC/Statutory Authority is higher than 50%, the stipulated % shall be followed.
- 1.2 Admission to the Ph.D. (Integrated Scheme) shall be by interview of the applicants who may be short listed by a screening examination approved by the Academic Council.

# 2. Programme

- 2.1 Ph.D. (Integrated Scheme) at each CI shall consist of two components: (i) course work, and (ii) research work leading to thesis. In addition, specific project work requirements may be imposed by individual CIs.
- 2.2 The contents of the course work shall be in accordance with the syllabi approved by the Board of Studies. The duration of the course work shall be equivalent to two academic years. Wherever necessary, a course or courses may be substituted by one or several term papers on subjects and/or allied subjects or a minor thesis.
- 2.3 The candidates shall take examinations based on the course work. Those who score marks or grades above a minimum specified by the concerned Board of Studies shall be declared as having completed the course work successfully. The candidates are expected to earn the required grades within the period stipulated for the course work. The decision on whether a candidate should be allowed a second attempt, in the event of failing to secure the necessary grades at the first try, shall be taken by the Monitoring Committee (see Clause 3 below), with the concerned Board of Studies kept informed of all such decisions.
- 2.4 All candidates successful in the course work of this programme shall be awarded M.Sc. degree.

- 2.5 Having completed the course work successfully, a student shall appear for an oral General Comprehensive Examination to be conducted by the Monitoring Committee. If his/her performance is satisfactory, the Monitoring Committee shall permit the candidate to enrol for Ph.D. Else, it may give specific suggestions and time period (maximum three months) to the candidate for preparation before reappearing for the oral general comprehensive examination. If a student fails to qualify in two attempts, he/she shall cease to be a part of the Ph.D. (Integrated Scheme). In that event, the Monitoring Committee may consider recommending him/her for a lower degree such as M.Phil. after he/she has completed the requirements that the committee may specify.
- 2.6 Normal period of completion of the programme shall be 48 months from the date of enrolment to Ph.D. The period may be extended up to a maximum of one year by the Doctoral Committee (see Clause 5 below). Any extension beyond one year will require approval of the concerned Board of Studies.

## 3. Monitoring Committee

- 3.1 Progress of each student during the course work shall be monitored by a Monitoring Committee to be constituted by the Dean-Academic at the CI within eight weeks of joining of the candidate. The Monitoring Committee will function to supervise the progress of the student until such time as a Doctoral Committee (see clause 5 below) is constituted. The constitution of the Monitoring Committee shall be as follows:
  - d. A senior faculty member to be nominated by the CI shall be the Chairman,
  - e. Up to two faculty members specializing in an area falling in the domain of the Board of Studies to which the student is enrolled,
  - f. Up to two members from the faculty involved in teaching the courses that the student is attending.
- 3.2 The Committee will serve to evaluate the performance of the candidate during the period of the course work suggesting remedial actions if necessary. It will meet at least bi-annually. It will assess the suitability of the candidate for continuing in the programme as per the procedure laid down in Clauses 2.5 and 2.6.

## 4. Continuation for Ph.D.

- 4.1 The candidates who pass successfully the General Comprehensive Examination and are declared by the respective Monitoring Committee as suitable for continuing in the programme shall be allowed to continue for the Ph.D. part of the programme.
- 4.2 On being allowed to continue for Ph.D., each candidate shall be assigned a mentor or a guide and, if necessary, a co-guide. In case the candidate is assigned only a mentor, his/her guide shall be identified as soon as possible but not later than the end of his/her first year of the Ph.D. part in the doctoral programme. The guide shall be identified by taking into consideration the academic interests of the concerned candidate and the research profile of the CI to which the candidate is admitted. The guide and, where applicable, co-guide could be from any CI or an Institute or University with which HBNI has an agreement of cooperation. The guide has to have recognition as faculty from HBNI.

## 5. Doctoral Committee

- 5.1 To monitor the progress of the students, the Dean-Academic at the CI, in consultation with the Convener, concerned Board of Studies, shall constitute, within four weeks of his/her qualifying the General Comprehensive Examination, a Doctoral Committee for each student. The composition of each committee shall be as follows:
  - a. A Professor or an Associate Professor shall be the Chairman of the Committee,
  - b. The guide will be the Convener and where applicable, the coguide of the student will be a member.
  - c. One faculty member of the Institute specializing in a domain encompassing the topic of research,
  - d. One faculty member from the same or an allied an allied domain.

It would be desirable to have one of the members in category c or d from another CI or any other university/ institute.

- 5.2 The student shall prepare, in consultation with his/her guide, a plan of research work. The Doctoral Committee shall meet as soon as soon the student is prepared to make a presentation of his/her plan of research. In this meeting, the Committee shall approve the topic of research and, in cases where a guide is assigned before General Comprehensive Examination, prescribe additional courses, if any, to be taken by the student. The Committee might suggest a change in the plan of work or a change in the topic itself. The Doctoral committee can also suggest a change in guide and, where applicable, co-guide.
- 5.3 During the course of his/her thesis work, the student will give periodic seminars to the Doctoral Committee on the progress of his/her work. The committee shall monitor the progress and advise the candidate as appropriate including permission for submission of synopsis.

- 6.1 If satisfied with the synopsis, the Doctoral Committee shall permit the candidate to submit the thesis. The thesis examiners will be appointed as per the procedure detailed below:
  - 1. The Dean-Academic of a CI will forward the synopsis and a list of six examiners, as recommended by the Doctoral Committee to the Convener, Board of Studies (BOS) in the relevant discipline.
  - 2. The Convener, BOS-relevant discipline, in consultation with the BOS members will shortlist four examiners, who may or may not be from the list recommended by the Doctoral Committee. The Convener then will forward both the list of examiners one by the Doctoral Committee and the other by the BOS, to Dean, HBNI.
  - 3. The Dean, HBNI after the approval of Director, HBNI will communicate the approved list of examiners to Dean-Academic as well as to the Convener, BOS.

- 4. In case of clarifications, if any, the Dean, HBNI will get back to Convener, BOS. After the clarification, procedure at Sr. No. 3 will be repeated.
- 6.2 The student shall submit to the Dean-Academic `soft` as well as the requisite number (to be specified by the Chairman, Doctoral Committee) of `hard` copies of the thesis within three months of approval of the synopsis by the Doctoral Committee. This time limit may be relaxed by the Dean-Academic in deserving cases. The Dean-Academic shall take the responsibility of forwarding the thesis to first two examiners in the list approved by the Director and monitor subsequent correspondence with them. The Dean-Academic shall also ensure that each examiner's report concludes with specific recommendations that the thesis be (i) accepted, (ii) accepted after revisions, or (iii) rejected.
- 6.3 The examiners are expected to submit their report within eight weeks of the date of receipt of the thesis.
- 6.4 In case of undue delay in receiving the thesis report, the Dean-Academic may approach the person next on the list of examiners to act as an examiner.
- 6.5 In case the thesis is rejected by both the examiners, the registration of the student shall be cancelled.
- 6.6 In case one or both the examiners suggest revisions, the suggested revisions shall be communicated to the student and, after having been duly revised, the thesis shall be re-sent to the examiners if so recommended by him/her. Else, the Doctoral Committee will decide about acceptability of the revisions.
- 6.7 In case the thesis is rejected by both the examiners even after revisions are made, the registration of the student shall be cancelled.
- 6.8 If report of only one of the examiners is negative, then the Doctoral Committee can either ignore that report or go for a third opinion.
- 6.9 If the third examiner also declares that the thesis is not acceptable for award of the degree, the student shall be asked to revise it within a time period stipulated by the Doctoral Committee. The Doctoral Committee shall then take a decision about further processing of the revised thesis.
- 6.10 In case the thesis is accepted for award of the degree, the Doctoral Committee shall act as the viva voce board and conduct the viva voce examination of the student as soon as possible after giving two weeks notice to the student. If the Board is satisfied with the performance of the student, it shall sign its report recommending the award of the degree to the student. One of the thesis evaluators, as decided by Director, HBNI, shall

be a member of the Viva Voce Board. If the viva voce Board is not satisfied with the performance of the student, it shall fix another date which shall not be earlier than a month after and not later than six months from the date of the first viva. If the performance of the student is unsatisfactory even in the second viva, the matter shall be referred to the Board of Studies for a decision. The viva voce Board, if satisfied with the performance of the student shall sign its report recommending the award of the degree to the student,

6.11 Students may present themselves for oral examination only twice and the report of the viva voce Board signed by all members must reach the office of Dean HBNI through Dean-Academic of the CI for the award of the degree.

# M.Sc. (Nursing)

## 1. Admission

- 1.1 Minimum qualification for admission to the M.Sc. (Nursing Oncology) programme shall be a bachelor's degree in nursing B.Sc (Nursing) or equivalent degree of a University recognized by the Indian Nursing Council with minimum 50% marks followed by two years experience. However, whenever stipulation by Statutory Authority is higher than 50%, the stipulated % shall be followed.
- 1.2 The selection of candidates for admission to M.Sc. (Nursing Oncology) programme in a CI shall be through a selection process formulated by the CI. Reservation for in-service candidates will be as per notification issued by the CI.

# 2. Programme

- 2.1 Normal duration of this programme shall be of two academic years.
- 2.2 The programme shall consist of (i) course work (theory and practicals) as prescribed by the Indian Nursing Council and (ii) research work carried under the supervision of a guide and wherever applicable a co-guide.
- 2.3 The thesis work shall be undertaken as per the guidelines of the Board of Studies in Health Sciences and the topic of study shall be approved by the Institutional Review Board (IRB) of the CI.

- 3.1 A student has to pass in all theory and practical examinations each year. If a student fails either in theory or in practical examination of a subject, he/she has to reappear in both theory and practical examinations. Maximum number of attempts for each subject is three including the first attempt.
- 3.2 A candidate failing in more than two subjects shall not be promoted to the second year. A student cannot appear in the second year examination, unless he/she has passed the first year examination. The maximum period allowed for completing the course is four years.

- 3.3 A student enrolled for M.Sc. (Nursing Oncology) shall submit her/his thesis to the office of Dean-Academic several weeks prior to the commencement of the written examination for the second year. Exact time table shall be as specified by the CI. Thesis evaluation committee appointed by Dean-Academic will evaluate the thesis and submit its report to the office of Dean-Academic prior to the beginning of the theory examination. A student can appear in the final examination only of her/his thesis has been adjudged as satisfactory.
- 3.4 The Academic Council on the recommendation of the relevant Board of Studies shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Degree. The examination result of all the candidates shall be communicated by the office of the Dean-Academic of the CI to the Dean HBNI for the award of the degree to the successful students.

## Doctor of Medicine (M.D.)

#### 1. Admission

- 1.1 Minimum qualification for admission to the M.D. programme in various specializations shall be M.B.B.S. or equivalent degree of a University recognized by the Medical Council of India with minimum 50% marks. However, whenever stipulation by Statutory Authority is higher than 50%, the stipulated % shall be followed. Specializations and number of seats shall be as approved by the Medical Council of India.
- 1.2 The selection of candidates for admission to M.D. programme in a CI shall be through a selection process formulated by the CI in accordance with the applicable guidelines of the Central Government and the Government of the State where the Institute is located.

## 2. Programme

- 2.1 Normal duration of this programme shall be of three academic years.
- 2.2 The programme shall consist of (i) theory, clinical disciplines, practical training including advanced diagnostic, therapeutic and laboratory techniques relevant to the subject of specialization, and (ii) research work carried under the supervision of a guide leading to a thesis. The Curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Health Sciences.
- 2.3 Annual appraisal (both theory and practicals) of the progress (Annual internal assessment) of a student shall be conducted with the assistance of external experts selected by Dean-Academic.
- 2.4 Every student shall be assigned to a guide in accordance with the stipulations of the Medical Council of India and shall prepare in consultation with his/ her guide a plan of research work within a year of admission. The topic of dissertation/ publishable research work will be approved by the Hospital Ethics Committee and submit the letter of approval received from the HEC to the office of Dean-Academic. The dissertation is to be submitted by the student prior to the final examination i.e. towards the end of three years.

- 3.1 A student enrolled for M.D. shall submit her/his thesis to the office of Dean-Academic several weeks prior to the commencement of the written examination for the third year. Exact time table shall be as specified by the CI. Thesis evaluation committee appointed by Dean-Academic will evaluate the thesis and submit its report to the office of Dean-Academic prior to the beginning of the theory examination. A student can appear in the final examination only of her/his thesis has been adjudged as satisfactory.
- 3.2 After satisfactorily completing the dissertation, a student shall appear for theory and viva examinations. If a student fails either in theory or in viva examinations, he/she has to reappear in both theory and viva examinations within the next session.
- 3.3 The maximum period allowed for completing the course is five years.
- 3.4 The Academic Council, on the recommendation of the relevant Board of Studies, shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Degree. The examination result of all the candidates shall be communicated by the office of the Dean-Academic of the CI to the Dean HBNI for the award of the degree to the successful students.

# Master of Chirurgiae (M.Ch.) and Doctor of Medicine (D.M.)

#### 1. Admission

- 1.1 Minimum qualification for admission to the M.Ch. and D.M.. programmes in various specializations shall be M.S. or M.D. in appropriate specialization as specified by the CI or equivalent degree of a University recognized by the Medical council of India with minimum 50% marks. However, whenever stipulation by Statutory Authority is higher than 50%, the stipulated % shall be followed. Specializations and number of seats shall be as approved by the Medical Council of India.
- 1.2 The selection of candidates for admission to M.D. programme in a CI shall be through a selection process formulated by the CI in accordance with the applicable guidelines of the Central Government and the Government of the State where the Institute is located. Reservation for in-service and sponsored candidates will be as per notification issued by the CI.

## 2. Programme

- 2.1 Normal duration of this programme shall be of three academic years.
- 2.2 The programme shall consist of (i) theory, clinical disciplines, practical training including advanced diagnostic, therapeutic and laboratory techniques relevant to the subject of specialization, and (ii) research work carried under the supervision of a guide leading to a thesis. The Curriculum shall be approved by the Academic Council on the recommendation of the Board of Studies in Health Sciences. M.Ch. students shall also participate in surgical procedures.
- 2.3 Annual appraisal (both theory and practicals) of the progress (Annual internal assessment) of a student shall be conducted with the assistance of external experts selected by Dean-Academic.
- 2.4 Every student shall be assigned to a guide in accordance with the stipulations of the Medical Council of India and shall prepare in consultation with his/ her guide a plan of research work within a year of admission. The topic of dissertation/ publishable research work will be approved by the Hospital Ethics Committee and submit the letter of approval received from the HEC to the office of Dean-Academic. The dissertation is to be submitted by the student prior to the final examination i.e. towards the end of three years.

- 3.1 A student enrolled for M.Ch. or D.M. shall submit her/his thesis to the office of Dean-Academic several weeks prior to the commencement of the written examination for the third year. Exact time table shall be as specified by the CI. Thesis evaluation committee appointed by Dean-Academic will evaluate the thesis and submit its report to the office of Dean-Academic prior to the beginning of the theory examination. A student can appear in the final examination only of her/his thesis has been adjudged as satisfactory.
- 3.2 After satisfactorily completing the dissertation, a student shall appear for theory and viva examinations. If a student fails either in theory or in viva examinations, he/she has to reappear in both theory and viva examinations within the next session.
- 3.3 The maximum period allowed for completing the course is five years.
- 3.4 The Academic Council, on the recommendation of the relevant Board of Studies, shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Degree. The examination result of all the candidates shall be communicated by the office of the Dean-Academic of the CI to the Dean HBNI for the award of the degree to the successful students.

## **ORDINANCE UG1**

## M.Sc. (5-year Integrated) Programme

#### 1. Admission

- 1.1 Minimum qualification for admission to the 5-year integrated M.Sc. programme shall be 10 + 2 years of schooling or equivalent from any recognized board in India. Admission shall be through a national level screening test conducted by the CI or any national level test recognized by the CI for this purpose. Minimum % of marks in 10 + 2 to appear in the screening test are 60% for general category and 55% for SC/ST/PD category in aggregate (or equivalent grade). The % may be revised by the CI if so stipulated by an applicable order of the Government. Subjects that a students should have studied at 10 + 2 level shall be specified by the CI.
- 1.2 Students who have passed 10 + 2 examination in the last two years or appearing in the year are eligible to apply. Age limit and reservation may be specified by the CI based on applicable orders of the Government.

## 2. Programme

- 2.1 This programme shall be of five academic year duration. A student can specialize in biology, chemistry, mathematics or physics. Wherever the programme is declared as residential, stay in the hostels provided by the CI shall be compulsory. CI shall decide details of curriculum and its implementation, mode of assessment, methodology of project selection, and graduation requirements and seek approval from Board of Under-Graduate Studies and Academic Council.
- 2.2 The curriculum for the first two semesters (first year) is common to all students and specialization begins form third semester.
- 2.3 After having chosen specialization in second year, students are required to go through a certain number courses in other disciplines.
- 2.4 Students are also required to go through some compulsory courses in humanities, social sciences, environmental and energy sciences.
- 2.5 The fourth and the fifth year shall be devoted to advanced courses in various disciplines.
- 2.6 In the fifth year students shall undertake guided research project. Individual schools may initiate the project in the fourth year itself. The outcome of the

research shall be a thesis and schools are free to decide on method for its evaluation. Projects relevant to the programme shall receive special emphasis.

2.7 Students are also encouraged to undertake summer projects and visit reputed laboratories and universities in India and abroad. Summer projects at and visits to DAE laboratories shall receive special emphasis.

- 3.1 The Academic Council, on the recommendation of the Board of Under-Graduate Studies, shall fix the minimum qualifying marks or grades and other criteria for declaring a student as successful for the award of the Diploma. Board of Under-Graduate studies shall also decide modalities for re-evaluation of answer papers and re-examination.
- 3.2 The maximum period allowed for completing the course is seven years.
- 3.3 The examination result of all the candidates shall be communicated to the Dean HBNI through Dean-Academic of the CI for the award of degree to the successful candidates.