

MEENAKSHI

ACADEMY OF HIGHER EDUCATION & RESEARCH

DEEMED TO BE UNIVERSITY U/S 3 OF UGC ACT, 1956

*(Revised based on University Grants Commission -
Minimum Standards and Procedure for Award of Ph.D Degrees Regulations, 2016)*



Regulations For the Degree of Doctor of Philosophy (Ph.D)

Constituent Colleges

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REGULATIONS FOR DOCTOR OF PHILOSOPHY-2016

DEFINITIONS AND NOMENCLATURE

In the Regulations, unless the context otherwise requires,

- 1 “MAHER” means Meenakshi Academy of Higher Education and Research (Deemed to be University), Chennai 600 078.**
- 2 “Research Board” means the Board duly constituted by the Vice-Chancellor of the MAHER to oversee its research activities.**
- 3 “Programme” means Doctoral Programme leading to the award of Ph.D. in Medicine / Dentistry / Nursing / Allied Health Science / Science.**
- 4 “Guide Supervisor” means any Teaching Faculty Member of the MAHER who has been recognized by the MAHER to guide the research scholars.**
- 5 “Co-Guide / Co-Supervisor / Joint Supervisor” means a recognized Supervisor to guide the scholars in interdisciplinary research that requires more than one expert to take care of the administrative and research responsibilities of the scholar.**
- 6 “Research Advisory Committee” means a Committee constituted by the MAHER for each scholar to monitor the progress of his/her research work.**
- 7 “Scholar” means any candidate admitted by the MAHER either under Full-time or Part-time category for pursuing research for the award of Ph.D. degree by the MAHER.**
- 8 “Specialization” means the discipline of the Post Graduate Degree Programmes such as Medicine / Dentistry / Nursing / Allied Health Science.**

1. PREAMBLE

The Degree of Doctor of Philosophy (Ph.D.) is awarded to a candidate who, as per these regulations, has submitted a thesis on the basis of original and independent research in any particular discipline or involving more than one discipline (inter-disciplinary) that makes a contribution to the advancement of knowledge, which is approved by Board of Examiners as required.

GENERAL ELIGIBILITY

Candidates for admission to the Ph.D programme shall have a Master's degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.

A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/differently-abled and other categories of candidates as per the decision of the University Grants Commission from time to time, or for those who had obtained their Master's degree prior to 19th September, 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedure.

Candidates who have cleared the M.Phil. Course work with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) and successfully completing the M.Phil. Degree shall be eligible to proceed to do research work leading to the Ph.D Degree in the same Institution in an integrated programme.

A person whose M.Phil. dissertation has been evaluated and the viva voce is pending may be admitted to the Ph.D. programme of the same Institution.

Candidates possessing a Degree considered equivalent to M.Phil. Degree of an Indian Institution, from a Foreign Educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions, shall be eligible for admission to Ph.D. programme.

2. EDUCATIONAL QUALIFICATIONS

PROGRAMME	QUALIFICATION FOR ADMISSION
Ph.D in Medicine	<ul style="list-style-type: none"> • Degree of Doctor of Medicine (M.D., D.M. or M.R.C.P.), or Master of Surgery (M.S. M.Ch. or F.R.C.S.) or any other PG qualifications in the Faculty of Medicine under the regulations of this Deemed to be University or any other University recognized by the Medical Council of India or National Board of Examinations of India and approved by the Governing Council of MAHER as equivalent thereto. • Degree of Doctor of Medicine - M.D. (Siddha, Ayurveda, Unani, Homeopathy) • Degree of Master of Science (M.Sc. in Basic Medical Sciences viz., Anatomy, Biochemistry, Microbiology, Pharmacology, Physiology)
Ph.D in Dentistry Ph.D in Nursing	<ul style="list-style-type: none"> • Master's Degree in Dentistry (MDS) • Master's Degree in Nursing (M.Sc.)
Ph.D in Allied Health Sciences	<ul style="list-style-type: none"> • Master of Physiotherapy (M.P.T.) • Master of Occupational Therapy (M.O.T.) • Master of Science in Endocrinology, Environmental Toxicology, Medical Biotechnology
Ph.D in Science	<ul style="list-style-type: none"> • Master of Science in Molecular Biology, Biotechnology, Microbiology, Biochemistry, Genetics, Botany, Zoology, Life science, Environmental Science
Ph.D in Yoga Science & Therapy	<ul style="list-style-type: none"> • Master of Science in Yoga Science • Master of Science in Yoga Therapy

3. **Ph.D. PROGRAMME**

Two categories of Ph.D. programme available are: Full-time and Part-time. Candidates should satisfy the eligibility criteria for Ph.D. Programme as stipulated in clause 1.1.

Full-time Ph.D. Programme

Candidates under Full-time shall do research work in Institution and shall be available during the working hours for curricular, co-curricular and related activities.

Candidates working in the projects undertaken from State / Central / Quasi Government and totally funded through the projects in the Departments / constituent Colleges of MAHER.

If the Principal Investigator/Co-Investigator of such projects are recognized Supervisor of MAHER, the scholar shall register for research programme under such Supervisor only. The scholar should be appointed in a project sanctioned by a funding agency/ organization till the completion of the project. The Department / Centre where the project is undertaken should be a recognized research centre by MAHER.

Candidates in employment, who want to pursue Full-time study, should be sponsored by their employer and should avail leave for the minimum duration of the programme and should get formally relieved from their duty to join the research programme.

Candidates who are selected at National level Fellowship Programmes or by any recognized bodies and who satisfy the eligibility conditions as per the regulations shall apply for Full-time category in the respective Specialization.

The candidate with fellowship from the UGC / CSIR / ICMR shall be exempted from appearing for the entrance test.

Foreign Nationals sponsored by the Government of India on any exchange programme and who satisfy the eligibility conditions as per the regulations shall apply for Full-time category in the respective Specialization.

Part-time Ph.D. Programme

The following categories of candidates are eligible to apply under Part-time programme.

Full-time teachers of MAHER Departments / Constituent Colleges.

Candidates working in Industrial Units / R&D Departments / National Laboratories / Units of Government / Quasi Government or any other research laboratories which are recognized by the MAHER to do collaborative research and sponsored by the respective employer.

3.2.3.1 PART – TIME (INTERNAL)

A candidate, possessing any one of the qualifications falling under any of the following categories, is eligible to conduct research on a Part – Time basis (i.e., can conduct research while continuing as teacher etc):

Part Time Candidates (IR- Independent Research) :

Head of Department / Professor/Additional Professor/Associate Professor, who is working in any Department of MAHER or in any recognized Institution approved by MAHER for the purpose of research in the subject concerned, with not less than 10 years of Teaching and/or Clinical &/or Research experience, of which 5 years shall be at the PG level and having a minimum of 3 Research publications either as a Principal/Coauthor in any accredited journal, shall be eligible to register for the Ph.D. Degree without a Guide as “Part-time Independent Research Candidate.”

However, such candidates shall seek the guidance/assistance of not less than 3 experts well recognized in the concerned field either in service or retired, but continuing to be academically active and up-to-date.

The above 3 experts shall be members of the “Research Advisory Committee” for the respective Part time candidate and conduct the Research Methodology Examination for him / her at the end of the 1st year and send the report to the Controller of Examinations as provided in these regulations. Out of the 3 members of the above Committee one shall be the nominated consensually as the Convener. At the end of the prescribed period of research, the Committee shall submit a panel of examiners for evaluation of Thesis and Public viva-voce examination for the Independent research candidate concerned.

Part – Time Research Candidates (With Guides):

A teacher working in the Pre-clinical / Clinical Department of MAHER or of its Constituent college with a minimum of one year service after acquiring the qualifying degree.

A candidate employed other than as a teacher in a permanent job, within the territorial jurisdiction of the University with a minimum of 5 years working experience put in continuously with the qualifying degree and satisfying the rules framed separately by the Board of Management from time to time.

Research Fellows /Research Assistants / Technical Assistants/ Project Assistants appointed by the MAHER or working under projects funded by recognized agencies are eligible to register for Ph.D. degree on part – time basis in the same department.

The candidate who fulfil the regulations as to qualifications specified above and is working as a Teacher / other non-teaching researcher in a Department of MAHER or its constituent college may be permitted to register himself/herself as a part-time scholar for Ph.D. Degree under a Guide and such candidate shall be required to work under the Guide directly and meet him / her for instruction, discussion etc., during the prescribed period of research work.

PART – TIME (EXTERNAL)

Notwithstanding anything contained in these regulations, candidates possessing any one of the following qualifications from MAHER or equivalent thereto.

A candidate employed as a teacher / clinical professional /scientist or in any other related capacity in National State level institutions , Universities and Research and Development institutions outside the MAHER / State, and who are sponsored by the respective organizations for pursuing research leading to the Ph.D. Degree of MAHER, while continuing in employment, may be permitted to be registered for the Ph.D. Degree on a part–time basis as external candidates.

These candidates are expected to do research in their place of employment and in addition they should undergo such course and research work as may be prescribed by the supervisor / doctoral committee for a minimum period of eight months directly under the supervisor in MAHER. In addition to the supervisor from the MAHER, they shall have a joint supervisor from the Institution where they are employed, provided such supervisors are approved and recognized by MAHER as Doctoral guides.

CONVERSION OF FULL-TIME REGISTRATION INTO PART - TIME AND VICE VERSA

Notwithstanding anything prescribed in these regulations, MAHER may permit conversion from Full-time to Part-time research in respect of candidates registered, for valid reasons and subject to satisfying the regulations, rules and conditions in force after completion of Two years under Full-time research. Candidates who are qualified NET/SET/JRF are permitted to convert their Full-time research programme into Part-time research programme after a gap of one-year from the date of Registration provided they are appointed as Asst. Professor or equivalent category in Constituent Colleges of MAHER. Conversion from Part-time to Full-time research is permitted at any point of time for part - time scholars.

4 **PROCEDURE FOR ADMISSION**

The candidates desirous of registering for Ph.D. Programme shall apply in the prescribed application form downloaded from the Institution website, fill-in all the necessary details and submit through proper channel wherever applicable, before the due date as indicated in the notification issued from time to time.

Incomplete applications in any respect shall be summarily rejected without any intimation to the candidate.

The applications of the eligible candidates shall be processed by Committee constituted by the Director (Research) for the purpose of selection. The composition of such Committee shall be decided by the Director (Research) with the approval of Vice-Chancellor, taking into account the number and nature of applications received.

The Committee shall screen the applications as per the eligibility norms and be responsible for the conduct of test and interview for the eligible candidates. Based on the performance in the test and interview, the successful candidates shall be shortlisted by the above Committee.

MAHER shall admit candidates by a two stage process through:

An Entrance Test shall be conducted with qualifying marks as 50%. Provided that a relaxation of 5% of marks (from 50% to 45%) shall be allowed for the candidates belonging to SC/ST/OBC (Non-Creamy layers)/ Differently-abled category in the entrance examination conducted by MAHER. The syllabus of the Entrance Test shall consist of 50% of research methodology and 50% shall be subject specific. The candidate should take the examination only in the subject for which he/she has applied for admission to the Ph.D. programme.

An Interview/*viva voce* will be conducted by the selection committee mentioned in clause 4.3.

The interview/*viva voce* shall also consider the following aspects, viz. whether (i) the candidate possesses the competence for the proposed research; (ii) the research work can be suitably undertaken at the Institution/College; (iii) the proposed area of research can contribute to new/additional knowledge.

Provided that for selection of candidates, a weightage of 70% to the entrance test and 30% to the performance in the interview / *viva voce* shall be given.

Candidates qualified in UGC - NET (including JRF) / UGC – CSIR - NET/ SET/other National Level Eligibility Tests are exempted from written test and they have to appear for the interview only.

Candidates who have been awarded INSPIRE Fellowship of DST, Rajiv Gandhi and Maulana Azad Fellowships of UGC or similar Fellowships awarded by statutory bodies of Govt. of India are exempted from written test and they have to appear for the interview only for admission to Ph.D. programme.

The Research Board constituted by the Vice-Chancellor shall approve and recommend the short listed candidates for admission to the doctoral programme in the appropriate specialization, after giving due consideration to the interdisciplinary fields of research, if any, and the Faculty in which the candidate shall be registered.

Selected candidates shall be provisionally registered for Ph.D. programme with the approval of the Vice-Chancellor.

MAHER shall maintain the list of all the Ph.D. registered students on its website on year-wise basis. The list shall include the name of the registered candidate, topic of his/her research, name of his/her supervisor/co-supervisor, date of enrolment/registration.

5. REGISTRATION FOR PH.D. DEGREE AND DURATION OF RESEARCH

The minimum duration for Ph.D. programme shall be three years for full-time and four years for part-time students (including coursework). The maximum duration will be five years for full time and six years for part time students.

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 upto 240 days.

A Ph.D. (Non-stipendiary) scholar will be permitted to avail 30 days leave in a year and Ph.D. (Stipendiary) scholar can avail leave as per terms and conditions of their respective fellowships / scholarships only with the prior permission from the Supervisor and Head of the Institution.

The duration of the programme and the time for submission of Thesis are counted from the date of provisional registration.

If a Full-time scholar completes his/her minimum duration of the programme as in Clause 3.3.1 he/she shall be permitted to change the category, if necessary, with prior approval from the Director (Research) subject to submission of necessary documents along with the recommendation of the Doctoral Committee.

The Director (Research) shall permit, if deemed fit with reasons for break of study of the scholar under extraordinary circumstances under medical grounds and other compelling reasons which warrants his/her absence to the programme. However, the break of study period shall not be counted for the minimum duration of the programme.

Break of study to scholars shall be granted upto a maximum period of **two years not exceeding one year at a time**. Such request with the recommendation of the Supervisor and Head of the Department should reach the Director (Research) prior to availing the break of study. If prior permission is not sought and obtained, it will be considered as a case of discontinuation and action will be taken to cancel the registration of such scholars. Break of study period shall be counted for the maximum duration of the programme. The scholar should pay the semester fees during the break of study period.

EXTENSION OF MAXIMUM DURATION

Scholars who do not submit the thesis within the maximum duration of the programme (six years) shall apply for extension of time three months before the completion of six years.

If the RAC Doctoral Committee recommends and the Research Board deems it fit, a maximum grace period of one and a half years, beyond the normal maximum period of six years shall be granted by the Vice-Chancellor to enable the scholar to submit the Thesis.

However, the final six months grace period shall be granted only if the scholar submits the **synopsis** and applies for extension with the recommendation of the RAC Doctoral Committee, at least one month prior to the expiry of the previous extension.

Penalty fees as prescribed from time to time shall be paid beyond the maximum duration. If the scholar fails to submit the Thesis within the extended period of two years, the registration shall be cancelled and the name be removed from the rolls.

6. APPLICATION FOR PROVISIONAL REGISTRATION

A candidate applying for provisional registration shall furnish all the information interalia in the prescribed form together with a DD for the fee prescribed. These applications shall be submitted within the stipulated time furnishing the following information:

Qualifications and details of previous study and research if any, and full particulars of publications to his credit in accredited journals.

Broad field of research in which he/she intends to pursue research and the subject of Research being either directly related to or allied to the subject in which the Candidate has acquired the Master's Degree.

Name of the recognized Guide/Co-guide under whom he / she proposes to do the research.

List of candidates already registered for Ph.D. under the Guide/Co-guide.

The Department and Institution where the candidate proposes to work and conduct his/her research.

Candidate who intends to carry out research in any other affiliated or approved institutions shall forward the application to the Registrar of MAHER with the recommendation of the Guide, Head of the Department and a "No Objection Certificate" from the Head of the Institution concerned.

Every applicant who satisfies all the conditions and procedures prescribed shall, after approval by the Vice Chancellor be provisionally registered for the Degree.

APPROVAL OF PROVISIONAL REGISTRATION

Every candidate who applies for provisional registration and who satisfies the requirements prescribed under these Regulations shall after approval by the Board of Research be provisionally registered for the Degree of Doctor of Philosophy (Ph.D.).

Every candidate provisionally registered for the Degree of Doctor of Philosophy (Ph.D.) shall be required to carry out research work under the supervision of a Guide and / or the Research Advisory Committee and undergo such courses of instruction as may be advised.

7. PLACE OF RESEARCH

A candidate shall be permitted to pursue research leading to Ph.D., in any one of the following institutions subject to satisfying conditions of eligibility, availability of supervisor and necessary facilities.

The Respective Faculty and Post graduate Departments of Constituent Colleges are recognized as having necessary facilities for carrying on research leading to Ph.D. with at least one qualified and recognized Guide in the branch of study concerned (Medicine / Dentistry/Allied Health Science) of MAHER.

The National and Regional Research Institutions duly recognized by MAHER. well equipped Research and Development Departments of Public and Private sector undertakings recognized by MAHER and having necessary facilities for carrying out research at an advanced level in the concerned or closely related area.

The above Institutions shall be duly recognized by MAHER on the recommendations of the expert committee appointed by the Vice Chancellor with the approval of the Board of Research.

RESIDENTIAL REQUIREMENTS

A candidate registered on a Full-Time basis shall work for the minimum period of research prescribed after the date of provisional registration and before submission of thesis in the Department or Institution under continuous supervision.

A candidate registered on Part-Time basis (Internal) in all subjects except that involving laboratory work shall work at least for two months in every academic year during the course of research at the institution where the supervisor is working. The supervisor has to issue an attendance for this purpose.

Provided that those who have been permitted to be registered on a part-time basis in subjects involving laboratory work in an institution other than where they are working, shall be required to work for a minimum total period of eight months in the institution directly under the supervisor. If required, the period of eight months of residency may be spent in four spells of not less than two months each during an academic year in course of their research.

Provided, in all the above cases (7.5.1), (7.5.2) and (7.5.3), the research work shall be monitored by the doctoral committee hereinafter prescribed, through bi-annual (twice a year) reports.

A candidate will be registered as a full-Time, Part-Time (internal), or Part-Time (external) subject to the provisions of these regulations.

8. RESEARCH ADVISORY / DOCTORAL COMMITTEE AND ITS FUNCTIONS

There shall be a Research Advisory Committee, for each Ph.D. scholar. The Research Supervisor of the scholar shall be the Convener of this Committee. The Head of the Department concerned, provided he/she is a recognized Supervisor, and one other member from Institutions in the neighborhood, who is an expert in the subject and also a recognized Supervisor for guiding Ph.D. scholars in that Institution.

In respect of inter-disciplinary research, the co-guide shall also be included as a member, in addition to those mentioned above. Research Supervisor may also include an expert (may or may not have Ph.D.) from the Industry / Institution in the Research Advisory Committee in addition to the above members to provide inputs to the candidate but not to count the mandatory requirement of approval of Synopsis. This Committee shall have the following responsibilities:

To review the research proposal and finalize the topic of research

To guide the research scholar to develop the study design and methodology of research and identify the course (s) that he/she may have to do.

To periodically review and assist in the progress of the research work of the research scholar.

To review the progress at the end of 2nd and 3rd year and submit specific recommendation whether the candidate could complete the research work within one or two years.

During the First two years, Research scholar shall present at least two papers in Regional / National level Seminars / Conferences or shall publish at least one paper in UGC listed journal. From third year onwards, at least one paper must be published in the UGC listed journals.

A research scholar shall appear before the Research Advisory Committee at least two times to make a presentation of the progress of his/her work for evaluation and further guidance. The six monthly progress reports of the candidate should be forwarded to Research Director, MAHER through the Guide, Head of the Department and Head of the Institution. Research Advisory Committee should meet for the Candidate's synopsis presentation.

In case the progress of the research scholar is unsatisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the Research Advisory Committee may recommend to the Institution/Constituent College with specific reasons for cancellation of the registration of the research scholar.

9.1 EXAMINATION & EVALUATION - COURSE WORK : CREDIT REQUIREMENTS, NUMBER, DURATION, SYLLABUS, MINIMUM STANDARDS FOR COMPLETION

The credit assigned to the Ph.D. course work shall be a minimum of 08 credits and a maximum of 16 credits.

The course work shall be treated as prerequisite for Ph.D. preparation. A minimum of four credits shall be assigned to one or more courses on Research Methodology which could cover areas such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, training, field work, etc. Other courses shall be advanced level courses preparing the students for Ph.D. degree.

All courses prescribed for Ph.D. course work shall be in conformity with the credit hour instructional requirement and shall specify content, instructional and assessment methods. They shall be duly approved by the authorized academic bodies.

The Department where the scholar pursues his/her research shall prescribe the course(s) to him/her based on the recommendations of the Research Advisory Committee.

All candidates admitted to the Ph.D. programmes shall be required to complete the course work prescribed by the Department during the initial one or two semesters.

Candidates already holding M. Phil. Degree and admitted to the Ph.D. programme, may be exempted by the Department from the Ph.D. course work. All other candidates admitted to the Ph.D. programme shall be required to complete the Ph.D. course work prescribed by the Department.

Grades in the course work, including research methodology courses shall be finalized after a combined assessment by the Research Advisory Committee and the Department and the final grades shall be communicated to the Institution/Affiliated College.

A Ph.D. scholar has to obtain a minimum of 55% of marks (or an equivalent grade in the UGC 7 point scale or an equivalent grade/CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the programme and submit the Ph.D. thesis.

COURSE WORK EXAMINATION AND EVALUATION

Every candidate provisionally registered for the Ph.D. programme shall undergo course work in the first year. The course work consists of the following:

Paper I :	Research Methodology (4 credits)
Paper II :	An advanced paper in the subject concerned (6 credits)
Paper III :	Background Paper relating to the candidate's Ph.D. work (6credits)
Paper IV :	Research and Publication Ethics (RPE) (2 Credit)

MAHER Departments / Constituent College /Research Institute may prescribe syllabus for Paper-I for each discipline, the syllabi for the Papers II & III will be prescribed by the Research Advisory Committee based on the courses taught in the department.

SCHEME OF EXAMINATIONS

The Department/Supervisor with the approval of the Research Advisory Committee will conduct the written examinations for the courses prescribed by the Research Advisory Committee.

The viva-voce examination testing the domain knowledge of the candidate and his preparedness to carry out the thesis work shall be conducted.

The results will be communicated by the Supervisor to the Dean / Director

(Research) with the answer scripts and questions along with the Minutes of the Meeting of the Research Advisory Committee.

On the basis of these examinations, provisional registration of the candidate will be confirmed by MAHER. Researchers shall be permitted to proceed with his/her research work and submit the thesis at the expiry of minimum total period of research prescribed after provisional registration. The candidate should give seminars periodically after the confirmation of registration in the general field and in the topics connected with his/her research work.

The Research Advisory Committee will periodically have to monitor the progress of the work of the scholar and the report shall be sent to MAHER without fail once in six months.

Candidates who possess M.Phil. qualifications in the same discipline/field of research are eligible for exemption from undergoing the written examinations of first three papers. If the degrees are not in the same discipline (inter-disciplinary) they are exempted only from Paper-I Research Methodology and shall undergo written examinations for Paper-II and III. Like other candidates they should give seminars periodically in the general field and topics of his/her research work.

10 CANCELLATION OF REGISTRATION

If the progress of the Doctoral research program is found not satisfactory, and if the Guide sends a report to the Controller of Examinations, the registration of such a scholar, on approval of the Vice Chancellor, shall stand cancelled.

11 CHANGE OF FIELD OF RESEARCH

If a change of field of research becomes necessary, the research scholar should make a requisition seeking permission for the change with the approval of the Guide, to the Registrar within one year from the date of provisional registration. The permission shall be granted by the Vice Chancellor considering the individual merit of every such request.

12 RE-REGISTRATION

A candidate who has had registration cancelled under the circumstances stated above, under valid reasons, may choose to re-register with the prescribed fees. In such instances, the re-registered candidate shall be permitted to submit his thesis after a period of one year but not later than two years only if the supervisor and the topic of the thesis work remain unchanged. Application of re-registration should be made before the expiry of the earlier registration.

For re-registered candidates with change of supervisor and / or topic of thesis the candidate should submit a letter of consent from the current guide both for a change of guide and to continue to work on the topic of research suggested by him. The required period would be similar to the freshly registered candidates. After the expiry of the two years period of time the Ph.D. registration stands cancelled.

13. SUPERVISOR/ GUIDE RECOGNITION

Eligibility criteria to be a Research GUIDE, Co- GUIDE, Number of Ph.D. Scholars permissible per Supervisor, etc.

Any regular Professor of the MAHER or its Constituent College with at least five research publications in SCOPUS / WOS Indexed (or) UGC care list approves journals and any regular Associate/Assistant Professor of MAHER or its constituent College with a Ph.D. degree and at least two research publications in SCOPUS / WOS Indexed (or) UGC care list approves journals may be recognized as Research Supervisor.

Only a full time regular teacher of the MAHER or its constituent College can act as a supervisor. The external supervisors are not allowed. However, Co-Supervisor can be allowed in inter-disciplinary areas from other departments of the same institute or from other related institutions with the approval of the Research Advisory Committee.

The allocation of Research Supervisor for a selected research scholar shall be decided by the Department concerned depending on the number of scholars per Research Supervisor, the available specialization among the Supervisors and research interests of the scholars as indicated by them at the time of interview/ viva voce.

In case of topics which are of inter-disciplinary nature where the Department concerned feels that the expertise in the Department has to be supplemented from outside, the Department may appoint a Research Supervisor from the Department itself, who shall be known as the Research Supervisor, and a Co-Supervisor from outside the Department/Faculty/College/Institution on such terms and conditions as may be specified and agreed upon by the consenting Institutions/Colleges.

A Research Supervisor/Co-supervisor who is a Professor, at any given point of time, cannot guide more than Eight (8) Ph.D. scholars. An Associate Professor as Research Supervisor can guide up to a maximum of six (6) Ph.D. scholars and an Assistant Professor as Research Supervisor can guide up to a maximum of four (4) Ph.D. scholars.

A guide shall not undertake guiding for Ph.D. work to any of his/her first degree relatives.

The upper age limit for the Guide to register Ph.D. candidates under his/her supervision shall be 65 years. No guide shall enroll candidates for the award of Ph.D. Degree unless he/she has at least one year of service before retirement on super-annuation.

In case of relocation of an Ph.D. woman scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the University to which the scholar 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 scholar will however give due credit to the parent guide and the institution for the part of research already done.

14. CHANGE OF SUPERVISOR

When a Supervisor of a scholar happens to be away from MAHER for more than six months and up to one year, he/she shall continue to guide the scholar, but a Supervisor-in-charge shall be nominated by the Director (Research) based on the request of the Supervisor and / or the recommendation of the Head of the Department of the Supervisor. The Supervisor-in-charge shall function till the Supervisor returns.

When a Supervisor of a scholar happens to be away from MAHER for more than one year, an alternate Supervisor shall be nominated by the Director (Research) based on the request of the Supervisor and / or the recommendation of the Head of the Department of the Supervisor.

When a Supervisor retires from service on superannuation or leaves service, he/she shall make arrangements for an alternate Supervisor for his/her scholar. The Supervisor who retired from service shall continue to guide a scholar on his/her written request, provided the scholar has submitted the Synopsis or if the Supervisor is continuing in the same Department as Emeritus Professor/Visiting Faculty/ joined in the constituent Colleges of MAHER. Otherwise, the scholars shall be permitted to continue to work and submit their thesis under the guidance of a retired Supervisor only up to a maximum period of six months from the date of his/her retirement. However, a Joint Supervisor shall be nominated by the Director (Research) based on the request of the Supervisor and/or the recommendation of the Head of the Department of the Supervisor. After six months of such nomination, the Joint Supervisor shall become the Supervisor.

When a Supervisor migrates to other University / non-recognized department of the University, such Supervisors shall be permitted to guide the scholars already registered under him/her provided their provisional registration is confirmed,

otherwise an alternate Supervisor shall be nominated by the Director (Research) based on the request of the Supervisor and / or the recommendation of the Head of the Department of the Supervisor. However a Joint Supervisor shall be nominated by the Director (Research) based on the request of the Supervisor and / or the recommendation of the Head of the Department of the Supervisor to take care of the administrative and research responsibilities of the scholar.

If the Institution in which the scholar works becomes Private University or the scholar migrates to other University, such scholar shall be permitted to continue the research work in the University and to submit the Thesis under the same Supervisor with the approval from the Director (Research), provided his/her provisional registration is confirmed and his/her minimum duration of the programme is completed.

If the Institution(s) affiliated to the University becomes Private University, then the recognized Supervisors working in such institutions shall be permitted to guide the scholars, if their provisional registration is confirmed. Such Supervisors cannot be permitted to take additional scholars. However a Joint Supervisor shall be nominated by the Director (Research) based on the request of the Head of the Department of the Supervisor to take care of the administrative and research responsibilities of the scholar.

Change of Supervisor for a research scholar shall be possible on valid reasons with the consent of both the present and proposed Supervisors. In the case the scholar requests for change of Supervisor for valid reasons without the consent of the Supervisor, based on the merit of the issue, the request shall be considered by the Director (Research) with the approval of the Vice-Chancellor.

WITHDRAWAL OF RECOGNITION OF GUIDESHIP

If a Supervisor is found to involve in plagiarism, moral turpitude with fraudulent academic accomplishments and other activities prejudicial to the reputation of the MAHER, etc., his/her the recognition of Guideship will be summarily withdrawn without assigning any reason thereof.

15. EVALUATION AND ASSESSMENT METHODS, MINIMUM STANDARDS / CREDITS FOR AWARD OF THE DEGREE

Upon satisfactory completion of course work, and obtaining required marks/grade prescribed in sub clause 9.8 above , the Ph.D. scholar shall be required to undertake research work and produce a draft dissertation/thesis within a reasonable time, as stipulated by MAHER based on these Regulations.

Prior to the submission of the dissertation/thesis, the scholar shall make a presentation before the Research Advisory Committee, which shall also be open to all faculty members and other research scholars. The feedback and comments obtained from them may be suitably incorporated into the draft dissertation/thesis in consultation with the Research Advisory Committee.

Not less than three months before the submission of the thesis, every candidate shall submit to the Controller of Examinations, MAHER, through the Supervisor or the Convener of the Research Advisory Committee wherever pertinent, a Synopsis (THREE COPIES) of the proposed thesis together with the certificate of the Research Advisory Committee and stating the title of the thesis to be presented in the prescribed application form along with the prescribed fee. The candidate shall inform the probable date of submission of his/her thesis in the application. The synopsis shall be submitted both in the form of hard and soft copy in CD. The hard copy should not exceed 20 type printed pages (two side of A4 size).

Not later than SIX MONTHS after the submission of the synopsis and after the expiry of the minimum period of research prescribed, every candidate shall submit prescribed application and THREE COPIES of thesis embodying the results of the research carried out by him/her along with the prescribed application and fee. In addition, the thesis shall also be submitted in the form of soft copy in CD.

SUBMISSION OF THESIS

Ph.D. scholars must publish at least (2) two Research papers in SCOPUS / WOS Indexed (or) UGC care list approves journals listed in the UGC website for Science discipline and make two paper presentations in conferences/seminars before the submission of the thesis for adjudication, and produce evidence for the same in the form of presentation certificates and/or reprints. The title page of the thesis, cover, format, etc., should strictly conform to the format of presentation as prescribed and the thesis (all copies) should carry a declaration by the candidate as prescribed and certificate as prescribed duly signed and issued by the Supervisor. The thesis should NOT be hard bound and it should have a thin and flexible cover. The thesis should be forward in a confidential cover addressed to Controller of Examination.

The Academic Council (or its equivalent body) of MAHER shall evolve a mechanism using well developed software and gadgets to detect plagiarism and other forms of academic dishonesty. While submitting for evaluation, the dissertation/thesis shall have an undertaking from the research scholar and a certificate from the Research Supervisor attesting to the originality of the work, vouching that there is no plagiarism and that the work has not been submitted for the award of any other degree/diploma of the same Institution where the work was carried out, or to any other Institution. The Plagiarism software, its operations and threshold level will be as decided by the Board of Management.

**16 ADJUDICATION OF Ph.D. THESIS
EXAMINERS**

**Section : Ph.D. Evaluation - I
Strictly Confidential**

**PROFORMA FOR FURNISHING THE NAMES OF EXPERTS TO
EVALUATE PH.D. THESIS AND FOR CONDUCT OF THE PUBLIC
VIVA VOCE EXAMINATION**

Name of the candidate	
Title of Thesis	
Subject (in capital letters)	
Name of the Supervisor	
Phone / Mobile No. of the Supervisor	
Name of the Co-guide (if applicable)	
Department	
Institution / College	

PANEL OF EXPERTS CONSISTING OF NINE EXAMINERS FROM SOUTHERN STATES, NORTH INDIA AND ABROAD IN EQUAL PROPORTIONS

Name of the Examiner with Designation, Address, e-mail id., Mobile No., Landline No., Fax No. & Official University Email ID.	Qualifications, Total research research experience with specialization, URL of the University home page, if any & years of experience in the present institution	Whether the examiner evaluated any thesis of the Supervisor, If , yes, give details	Remarks (for office use only)

Please list 2 publications of the above examiners in the last 5 years (Research articles in the UGC listed journals or books published by reputed National / Foreign publishers) related to the discipline of the candidate's thesis.

II. NATIONAL (North, East, West)	

III. REGIONAL (CHENNAI)	

Certified that none of the experts suggested, including the Supervisor (and Co-guide if applicable) is relative to candidate and further certified that the panel of experts has been suggested in consultation with Doctoral Committee.

Signature of Co-guide with seal

(if applicable)

Signature of Supervisor

with designation and seal

Date:

FOR OFFICE USE ONLY

Submitted for orders regarding the three persons to be appointed to adjudicate on the above thesis, besides the Supervisor.

While forwarding the synopsis to the Controller of Examinations, the Guide and Supervisor with the approval of the Research Advisory Committee shall furnish a panel of nine external examiners (three from the Southern states, three from rest of India and three from abroad) for evaluation of the Thesis and to conduct the public viva-voce examination. The Research Advisory Committee shall along with the panel enclose a certificate stating that all the examiners suggested are experts in the discipline concerned and qualified to evaluate the thesis. The letter furnishing the panel shall be sent in a confidential cover addressed to the Controller of Examinations by name.

The Vice – Chancellor shall appoint a Board of 3 Examiners , one from Southern India, second from states other than Tamil Nadu and the third from outside India, drawn from the panel suggested by the RAC and submitted by the supervisor, and obtain ratification for such an appointment from the Board of the Management. The Examiners so appointed shall be given with a copy of the Synopsis for their perusal and requested to convey their acceptance within 3 weeks to evaluate the thesis subsequently. In the event of none of the 3 Examiners of first panel not accepting the Examiner ship, the Controller of Examinations shall call for the second panel of Examiners from the Examiners list given by the Supervisor and in case this panel also declines the assignment, the supervisor may be asked to submit second set of panel of Examiners. Three names must be given for panel of Examiners under each category.

While suggesting a panel of names for examinership the supervisor shall take care that no close or immediate relative of the candidate be appointed to act as examiner.

17. VALUATION OF THESIS AND PUBLIC VIVA VOCE EXAMINATION

The thesis shall be referred for valuation to 3 Examiners as already specified. The Board of Examiners so appointed shall value the thesis and report on the merit of the thesis for the award of the Ph.D. degree. Each examiner is expected to give a detailed report on the thesis apart from a proforma for adjudication in the format prescribed The Board of Examiners shall report on the merit of the thesis as **“Highly commended”, “Commended”, “Not Recommended”**.

The two external examiners shall send the individual reports together with the duly filled in proforma to the Convener. Together with his/her individual report and the duly filled in proforma the Convener will prepare a consolidated report, bringing out the salient points made in individual reports. The consolidated report shall be submitted by the Convener / Supervisor to the Controller of Examinations within a month.

If all the three examiners unanimously recommend the award of the degree, the candidate will be asked to appear for a public viva-voce examination.

In addition, the candidate should carry out the corrections etc., if any, suggested by the examiners, before the public viva-voce examination after obtaining permission from the Controller of Examinations. The Supervisor shall furnish a certificate to this effect, together with the list of corrections, to the MAHER before the public viva-voce examination.

If one of the external examiners recommends the award of the degree and other does not recommend the award of the degree, the Board of Management may refer the thesis to a fourth examiner so appointed shall belong to the same category (i.e., from India or outside India) as the original examiner who valued the thesis and has not recommended.

The fourth examiner will not be provided with the report of the other examiners. If the fourth examiner recommends the award of the degree, the candidate will be asked to appear for a public viva-voce examination prescribed earlier. If the fourth examiner also does not recommend the award of the degree, the degree will not be awarded to the candidate.

If any examiner has in his/her report made some comments and suggested corrections/modifications/alterations and asking the candidate to carry out the same in the thesis, then the candidate will be informed accordingly through the Supervisor.

Any complaint relating to valuation of the thesis, etc will be referred to a Committee constituted by the Vice-chancellor and based on the report of the committee action will be taken.

RESUBMISSION OF THE THESIS

A candidate whose thesis has not been commended for the award of the degree maybe permitted to resubmit it on a second occasion with a period of one year from the date of declaration of the results with a specific statement from the candidate and the Supervisor about the additional research work conducted and the revision done in the thesis. The resubmitted thesis shall be referred to the same examiner who originally valued the thesis for Revaluation.

VIVA-VOCE

A copy of the thesis of the candidate appearing for the public viva-voce examination shall be deposited in the departmental library for perusal of those interested in the thesis before the conduct of the public viva-voce examination, together with appropriate public notice issued by the Supervisor for the purpose. A format for the Public viva will be prepared and the Public viva needs to be conducted at a central place and the proceedings of the viva need to be sent to the Office of the Controller of Examinations.

Members of the department in the subject concerned where the candidate conducted research and outside specialists, if any, may participate in the public viva-voce examination. The Supervisor shall convey to the MAHER, the result of such public viva-voce examination duly endorsed by the external examiner, together with a list of participants in the examination with their signature, designation and address. A candidate who is also successful at the public viva-voce examination shall be declared to have qualified for the Ph. D degree.

A candidate, who is not successful at the public viva voce examination, may be permitted to take the same on a second occasion, after the expiry of THREE months. If he/she is not successful even on the second occasion at the public viva-voce examination, the degree will not be awarded to him/her.

No candidate shall be permitted to submit a thesis or to appear for the public viva-voce examination on more than TWO occasions.

The Institutions shall develop appropriate methods so as to complete the entire process of evaluation of Ph.D. thesis within a period of six months from the date of submission of the thesis.

FORMAT OF THE DEGREE

The Ph.D degree certificate shall incorporate the title of the thesis along with the name(s) of the faculty/faculties and discipline(s). In the case of the award of the Ph.D degree for inter-disciplinary research, the degree certificate shall bear both the subjects of the candidate's post-graduate degree and the discipline of the department in which the candidate has conducted his/her Doctoral research mentioning them as "inter-disciplinary". The broad discipline on which the Ph.D. degree is awarded will be decided by the Board of Management. Along with the degree, the University shall issue a provisional certificate certifying to the effect that the degree has been awarded in accordance with the provisions to the regulations of the UGC.

18 ACADEMIC, ADMINISTRATIVE AND INFRASTRUCTURE REQUIREMENT TO BE FULFILLED BY RESEARCH CENTERS/ R&D LABORATORIES/ OTHER INSTITUTIONS FOR GETTING RECOGNITION FOR OFFERING Ph.D. PROGRAMMES

Constituent Colleges may be considered eligible to offer Ph.D programmes only if they satisfy the availability of eligible Research Supervisors, required infrastructure and supporting administrative and research promotion facilities as per these Regulations.

Approved MAHER Departments / Centres / Postgraduate Departments of Constituent Colleges, Research laboratories of Government of India/State Government recognized by the MAHER, with at least two Ph.D. qualified teachers/scientists/other academic staff in the Department concerned along with required infrastructure, supporting administrative and research promotion facilities as per these Regulations, Stipulated under sub-clause 18.3 shall be considered eligible to offer Ph.D. programmes. Research Centers/ R&D laboratories/ other Institutions should additionally have the necessary recognition by MAHER under which they operate to offer Ph.D programme.

Constituent Colleges / Research Centers / R&D laboratories / other Institutions with adequate facilities for research as mentioned below alone shall offer Ph. D. programmes.

In case of science and technology disciplines, exclusive research laboratories with sophisticated equipment as specified by the Institution concerned with provision for adequate space per research scholar along with computer facilities and essential software, and uninterrupted power and water supply.

Earmarked library resources including latest books, Indian and International journals, e-journals, extended working hours for all disciplines, adequate space for research scholars in the Department/ library for reading, writing and storing study and research materials.

Constituent Colleges / Research Centers / R&D laboratories / other Institutions may also access the required facilities of the neighboring Institutions.

19. TREATMENT OF Ph.D THROUGH DISTANCE MODE/PART-TIME

Notwithstanding anything contained in these Regulations or any other Rule or Regulation, for the time being in force, MAHER shall not conduct Ph.D. Programmes through distance education mode.

Part-time Ph.D will be allowed provided all the conditions mentioned in the extant Ph.D Regulations are met.

20. AWARD OF Ph.D. DEGREES PRIOR TO NOTIFICATION OF THESE REGULATIONS, OR DEGREES AWARDED BY FOREIGN UNIVERSITIES

Award of degrees to candidates registered for the Ph.D. programme on or after July 11, 2009 till the date of Notification of these Regulations shall be governed by the provisions of the UGC (Minimum Standards and procedure for Awards of Ph.D Degree) Regulations, 2009.

If the Ph.D degree is awarded by a Foreign University, the Indian Institution considering such a degree shall refer the issue to a Standing Committee constituted by the concerned Institution for the purpose of determining the equivalence of the degree awarded by the Foreign University.

21. DEPOSITORY WITH INFLIBNET

Following the successful completion of the evaluation process and before the announcement of the award of the Ph.D. degree(s), the Institution concerned shall submit an electronic copy of the Ph. D. thesis to the INFLIBNET, for hosting the same so as to make it accessible to all Institutions/Affiliated Colleges.

Prior to the actual award of the degree, the degree-awarding Institution shall issue a provisional Certificate to the effect that the Degree has been awarded in accordance with the provisions of these UGC Regulations, 2016.

22. PUBLICATION OF THESIS

A thesis, whether approved or not, shall not be published in full without the permission of MAHER and the Vice-chancellor may grant permission for the publication under such conditions as it may impose; Provided that a candidate may during the course of his/her research, publish papers in standard and research journals, as advised by his/her Supervisor, but the thesis as a whole shall not be published without obtaining permission of the Board of Management. Permission for publication of the thesis should be obtained after award of the degree.

All publications should have Institutional affiliation i.e. Meenakshi Academy of Higher Education and Research (Deemed to be University), Chennai, Tamil Nadu, India.

23. THE ACT OF PLAGIARISM

In the case of scholars who have committed the act of plagiarism in the Thesis/ Journal publication, he/she and his/her supervisor will be punished as per UGC (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations, 2018.

24. GUIDELINES FOR THE PREPARATION OF SYNOPSIS

24.1 Synopsis should outline the research problem, the methodology used for tackling it and the summary of the findings. **The size of Synopsis should not exceed 15 pages of typed matter reckoned from the first page to the last page including the List of Publications.** The sequence in which the Synopsis should be arranged is as follows with References and List of Publications in separate pages:

1. Cover Page and Title page (as shown in the Annexure I).
2. Text divided into suitable Headings (numbered consecutively).
3. References (not more than 15).
4. List of Publications (those published/accepted for publication in Journals and papers presented in Conferences/Symposia). Mention Impact Factor of the Journal (if applicable).

Standard A4 size (297mm x 210mm) bond paper may be used for preparing the copies.

Synopsis should have the following page margins:

Top edge	:	30 to 35 mm
Bottom edge	:	25 to 30 mm
Left side	:	35 to 40 mm
Right side	:	20 to 25 mm

The Synopsis should be prepared on good quality white paper preferably not lower than 80gsm. One and a half spacing should be used for typing the general text. The general text shall be typed in Font Style Times New Roman and Font Size 13. One or two Tables/Figures may be included at appropriate places in the text and they should conform to the margin specifications. All page numbers (Arabic numbers) should be typed without punctuation on the upper right hand corner 20 mm from top with the last digit in line with the right hand margin. Synopsis should be bound with black calico cloth and using flexible cover of thick white art paper. The cover should be printed in black letters and the text for printing should be identical to what has been prescribed for the title page.

25. GUIDELINES FOR THE PREPARATION OF THESIS

GENERAL

The manual is intended to provide broad guidelines to the research scholars in the preparation of the Thesis. In general, the Thesis shall report, in an organized and scholarly fashion, an account of original research work of the research scholar leading to the discovery of new facts or techniques or correlation of facts already known (analytical, experimental, hardware oriented, etc.). Thesis shall demonstrate a quality as to make a definite contribution to the advancement of knowledge and the research scholar's ability to undertake sustained research and present the findings in an appropriate manner with actual accomplishments of the work.

25.1.2 INSTRUCTIONS

The scholars are expected to read carefully the instructions given in the sequel and meticulously follow them in the preparation of the Thesis. Non-compliance with any of these instructions may lead to the rejection of the Thesis submitted.

SIZE OF THESIS

The size of the Thesis shall be normally between 100 and 400 pages of typed matter reckoned from the first page of Chapter 1 to the last page of the thesis excluding reference section. The thesis shall be printed on both sides.

ARRANGEMENT OF THE CONTENTS OF THE THESIS

The sequence in which the Thesis materials should be arranged and bound are as follows:

1. Cover Page and Title page.
2. Bonafide Certificate.
3. Acknowledgement.
4. Table of Contents.
5. List of Tables.
6. List of Figures.
7. List of Symbols and Abbreviations.

8. The thesis should include the following chapters

Introduction
Review of literature
Aim and objectives
Materials and methods
Results
Discussion
Summary
Conclusion
References

25.5 The Tables and Figures should be included at appropriate places in the text of the Thesis.

PAGE DIMENSIONS AND MARGIN

Standard A4 Size (297 mm x 210 mm) bond paper may be used for preparing the copies. The dimensions of the final bound Thesis (3 copies) report should be 290 mm x 205 mm. Thesis should be bound with black calico cloth and using flexible cover of thick white art paper.

The final Thesis (at the time of submission) should have the following page margins:

Top edge : 30 to 35 mm

Bottom edge : 25 to 30 mm

Left side : 35 to 40 mm

Right side : 20 to 25 mm

The Thesis should be prepared on good quality white paper preferably not lower than 80gsm. Tables and Figures should conform to the margin specifications. Large size Figures should be photographically or otherwise reduced to the appropriate size before insertion.

MANUSCRIPT PREPARATION

In the preparation of the manuscript, care should be taken to ensure that all textual matter is typewritten to the extent possible in the same format as may be required for the final Thesis. Hence some of the information required for the final typing of the Thesis is also included in this section.

The headings should be typed in capital letters without punctuation and centered 50 mm below the top of the page. The text should commence 4 spaces below this heading. The page numbering for all items from 1 to 8 should be done using lower case Roman numerals and the pages thereafter should be numbered using Arabic numerals

Cover Page & Title Page - A specimen copy of the cover page and title page for the thesis is given.

Bonafide Certificate - The Bonafide Certificate shall be typed in double line spacing using Font Style Times New Roman and Font Size 13 as per the format.

The certificate shall carry the Supervisor's signature and shall be followed by the **Supervisor's name, academic designation (not any other responsibilities of administrative nature)**, department and full address of the institution where the Supervisor has guided the research scholar. The term 'SUPERVISOR' must be typed in capital letters between the Supervisor's name and academic designation. Signature of the Joint Supervisor with the details specified as above should be included wherever it is applicable.

Abstract - Abstract should be an essay type of narration not exceeding four pages outlining the research problem, methodology used for tackling it and a summary of the findings. This shall be typed in double line spacing using Font Style Times New Roman and Font Size 13.

Acknowledgement – It should be brief and should not exceed one page when typed in double spacing. The scholar's signature shall be made at the bottom right end above his/her name typed in capitals.

Table of Contents - The Table of contents should list all captions following it as well as any caption which precedes it. The title page, Bonafide Certificate and Acknowledgment will not find a place among the items listed in the Table of Contents but the page numbers of which are in lower case Roman letters. One and a half spacing should be adopted for typing the matter under this head. A specimen copy of the Table Contents for the Thesis is given in Annexure IV.

List of Table - The list should use exactly the same captions as they appear above the Tables in the text. One and a half spacing should be adopted for typing the matter under this head.

List of Figures - The list should use exactly the same captions as they appear below the Figures in the text. One and a half spacing should be adopted for typing the matter under this head.

List of Symbols and Abbreviations - One and a half spacing should be adopted for typing the matter under this head. Standard symbols, abbreviations, etc. should be used. The list should be arranged alphabetically with respect to the contents on the right side as shown below.

SYMBOL	ABBREVIATIONS
$\alpha, \beta, \gamma, \delta$	Alpha, Beta, Gamma, Delta
\pm	plus or minus
μ	mu (or) micron
Σ	summation
π	Pie
θ	Theta
$\♂, ♀$	Male, Female
λ	Lambda
s, min, h	Second, minute, hour
m, km	Meter, kilometer
mg, g, kg	Milligram, Gram, kilogram
ml, L	milliliter, Liter
PPM, PPB	Parts Per Million, Parts Per Billion
mol, N	Molal solution, Normality,
w/v, v/v	Weight/ Volume, Volume/Volume

Chapters

Appendices

LIST OF REFERENCES

Any works of other researchers, if used either directly or indirectly, the origin of the material thus referred to at appropriate places in the Thesis should be indicated. The author's publications during the period of research should not be included in the references. A paper, a monograph or a book may be designated by the name of the first author followed by the year of publication, placed inside brackets at the appropriate places in the Thesis. The citation may assume any one of the following forms.

HOW TO CITE

- The structure of a citation is the **author's surname** and year of publication.
- Single author is cited as "Jones (2001)".
- Two authors are cited using "&" (Deane & Jones 1991).
- More than two authors are cited using "et al" (Smith et al 1992).
- If an author published several papers in 2005, the year of the first publication (in the alphabetic order of the references) is cited and referenced as 2005a, the second as 2005b and so on.
- A citation is placed wherever appropriate in or after the sentence. If it is at the end of a sentence, it is placed before the period.
- Complete citations are provided in alphabetical order in "References."
- All citations are in the same font as the main text.

EXAMPLES OF CITATION

(I) An improved protocol has been adopted in the literature (Waldron 2008).

(II) Conley & Galeson (1998) has dealt at length this principle.

(III) The problem of mechanical manipulators has been studied by Alishahi et al (2009)

The listing should be typed 4 spaces below the heading "**REFERENCES**" in single spacing. The reference material should be listed in the alphabetical order of the first author. The name of the author/authors should be immediately followed by the other details and year. A typical illustrative list given below relates to the citation example quoted above.

REFERENCES

Journal Article : with Single Author

Waldron, S 2008, 'Generalized Welch bound equality sequences are tight frames', *IEEE Transactions on Information Theory*, vol. 49, no. 9, pp. 2307-2309.

Journal Article : with Two Authors

Conley, TG & Galeson, DW 1998, 'Nativity and wealth in mid-nineteenth century cities', *Journal of Economic History*, vol. 58, no. 2, pp. 468-493.

Journal Article : with more than two Authors

Alishahi, K, Marvasti, F, Aref, VA & Pad, P 2009, 'Bounds on the sum capacity of synchronous binary CDMA channels', *Journal of Chemical Education*, vol. 55, no.8, pp.3577-3593.

Books

Holt, DH 1997, *Management Principles and Practices*, Prentice-Hall, Sydney.

E-book

Aghion, P & Durlauf, S (eds.) 2005, *Handbook of Economic Growth*, Elsevier, Amsterdam. Available from: Elsevier books. [4 November 2004].

Conference Proceeding Paper with editors

Riley, D 1992, 'Industrial relations in Australian education', in *Contemporary Australasian industrial relations: Proceedings of the sixth AIRAANZ conference*, ed.D. Blackmur, AIRAANZ, Sydney, pp. 124-140.

Conference Proceeding Paper without editors

Fan, W, Gordon, MD & Pathak, R 2000, 'Personalization of search engine services for effective retrieval and knowledge management', *Proceedings of the twenty-first international conference on information systems*, pp. 20-34.

WEBSITE

Australian Securities Exchange **2009, Market** Information. Available from: <http://www.asx.com.au/professionals/market_information/index.htm>. [5 July2009].

PATENT

Cookson, AH 1985, Particle trap for compressed gas insulated transmission systems, US Patent 4554399.

THESIS: UNPUBLISHED

Hos, JP 2005, mechanochemically synthesized nanomaterials for intermediate temperature solid oxide fuel cell membranes. Ph.D. thesis, University of Western Australia.

NEWSPAPER: PRINT

Ionesco, J 2001, 'Federal election: new Chip in politics', The Advertiser 23 October, p. 10.

LIST OF PUBLICATIONS

The list of publications (those already published/accepted for publication in Journals and papers presented in Conferences/Symposia) made by research scholar during the period of research shall be reported in the Table of Contents. Mention Impact Factor of the Journal (if applicable).

TABLES AND FIGURES

“Table” means tabulated numerical data in the body of the Thesis as well as in the appendices. All other non-verbal material used in the body of the Thesis and appendices such as charts, graphs, maps, photographs and diagrams may be designated as Figures.

A Table or Figure including caption should be accommodated within the prescribed margin limits and appear on the page following the page where their first reference is made.

Tables and Figures on half page or less in length may appear on the same page along with the text. However, they should be separated from the text both above and below by triple spacing.

All Tables and Figures should be prepared on the same paper or material used for the preparation of the rest of the Thesis.

Two or more small Tables or Figures may be grouped if necessary in a single page.

Wherever possible, the photograph(s) shall be reproduced on a full sheet of photographic paper or standard A4 size paper.

More than one photograph can be included in a page.

Samples of Fabric, Leather, etc., if absolutely necessary may be attached evenly in a page and fixed/pasted suitably and should be treated as Figures.

TYPING INSTRUCTIONS

General

This section includes additional information for final typing of the Thesis. The impressions on the typed/printed copies should be black in colour.

A sub-heading at the bottom of a page must have at least two full lines below it or else it should be carried over to the next page.

The last word of any page should not be split using a hyphen. One and a half spacing should be used for typing the general text. The general text shall be typed in Font Style Times New Roman and Font Size 13. Single spacing should be used for typing:

- (i) Long Tables
- (ii) Long quotations
- (iii) Foot notes
- (iv) Multiline captions
- (v) References

All quotations exceeding one line should be typed in an indented space - the indentation being 15 mm from either side of the margin.

NUMBERING INSTRUCTIONS

Page Numbering

All page numbers (whether it be in Roman or Arabic numbers) should be typed without punctuation on the upper right hand corner 20 mm from the top with the last digit in line with the right hand margin.

The preliminary pages of the Thesis (such as Title page, Acknowledgement, Table of Contents, etc.) should be numbered in lower case Roman numerals.

The page immediately following the title page shall be numbered as (ii) and it should appear at the top right hand corner as already specified. Pages of main text, starting with Chapter 1 should be consecutively numbered using Arabic numerals.

Numbering of Chapters, Divisions and Sub-Divisions

The numbering of chapters, divisions and sub-divisions should be done using Arabic numerals only and further decimal notation should be used for numbering the divisions and sub-divisions within a chapter. For example sub-division 4 under division 3 belonging to chapter 2 should be numbered as 2.3.4. The caption for the sub-division should immediately follow the number assigned to it.

Every chapter beginning with the first chapter should be serially numbered using Arabic numerals. Appendices, included if any, should also be numbered in an identical manner starting with Appendix 1.

Numbering of Tables and Figures

Tables and Figures appearing anywhere in the Thesis should bear appropriate numbers. The rule for assigning such numbers is illustrated by an example. Thus, if a Figure in Chapter 3, happens to be the fourth then assign 3.4 to that Figure. Identical rules apply for Tables except that the word Figure is replaced by the word Table. If Figures (or Tables) appear in appendices then Figure 3 in Appendix 2 will be designated as Figure A 2.3. If a table to be continued into the next page this may be done, but no line should be drawn underneath an unfinished Table. The top line of the Table continued into the next page should, for example read Table 2.1 (continued) placed centrally and underlined.

Numbering of Equations

Equations appearing in each Chapter or Appendix should be numbered serially, the numbering should commence afresh for each Chapter or Appendix. Thus for example, an equation appearing in Chapter 4, if it happens to be the eighth equation in that Chapter should be numbered as (4.8) thus while referring to this equation in the body of the Thesis it should be referred to as Equation (4.8)

BINDING SPECIFICATIONS

Thesis (4 copies) should be bound with white calico cloth and using flexible cover of thick white art paper. The cover should be printed in black letters and the text for printing should be identical to what has been prescribed for the title page.

Soft copy of the Thesis in CD form (1 Nos) should be submitted to MAHER (Deemed to be University) in PDF.

8. Are you employed? : Yes / No

If yes, specify the Name and
Address of the Employer :

Salary received per month :

PROCESSING FEES DETAILS			
Amount	DD No	DD Date	Bank Name

9. Academic Background (State with latest Degree Obtained)
(Enclose copies of Degree / Diploma certificates duly attested)

Sl. No.	Degree/ Diploma	Year of Passing	University/ Institution	Major Discipline	Percentage of Marks and Class Obtained	Full time (or) Part Time (or) Distance Education
1						
2						
3						
4						

10. Professional Experience (Start from the employment)

Sl. No.	Organization	Period From To	Designation	Total Salary per Month	Nature of Job
1					
2					
3					
4					

11. Award / Medals / Prizes and Honours conferred (if any) :

12. Major Area of Ph.D Research :

13. Tentative Topic on which the research is proposed to be conducted (Attach one-page write-up on this topic) :

14. Faculty & Department in which :
the candidate proposes to register
(Refer regulation from website)

15. Name, Designation and address :
of the research co-ordinator (out side Maher)
For part time candidates (External only)

16. DECLARATION OF THE CANDIDATE

This is to certify that the particular given above are true. correct and complete to the best of my knowledge and belief

Signature of the Candidate

Place :

Date :

**17. PART - TIME (External) REGISTRATION ONLY
CERTIFICATE FROM THE HEAD OF THE ORGANIZATION**

- (i) The candidate will be permitted to be available at MAHER for fulfilling the residential requirements, as per this Deemed to be University Regulations.
- (ii) The required facilities at our organization will be provided to the candidate for doing research
- (iii) The candidate will also be permitted to be available at MAHER, whenever required by the Supervisor to have discussions with him to attend to the prescribed Course work. to conduct experiments and to participate in Seminars.

Name of the Research :
Coordinator (Optional)

Designation :

Signature of the Head /
Research Coordinator
of the Organization

Seal of the Organization

Place :

Date :

18. CONSENT OF THE SUPERVISOR & JOINT SUPERVISOR

(1) SUPERVISOR

- a) Name (In Block Letters) :
- b) Address for Communication :
- i) Official Address :
- ii) Residential Address :
- iii) Contact Phone Number :
- 1) Residence (with STD code) :
- 2) Office (with STD code) :
- 3) Mobile :
- iv) E. Mail Address :
- v) Website Address, if any :
- c) Whether the Supervisor has been recognized by MAHER to guide research scholars.
If yes, MAHER Reference No.
- d) No. of Ph.D Scholars Supervising :
- i) As a Supervisor in MAHER :
- ii) As a Joint Supervisor :

CERTIFIED That details furnished above have been verified and found to be correct and I am willing to supervise the candidate's research work.

Signature of the Supervisor

Place :

Date :

ii. JOINT - SUPERVISOR (OPTIONAL)

- a) Name (in Block Letters) :
 - b) No. of Ph.D Scholars Supervising :
 - i) As a Supervisor in MAHER :
 - ii) As a Joint - Supervisor in MAHER :
- c) Whether the joint - Supervisor has been recognized by the MAHER to guide. If Yes, University Reference No. :

CERTIFIED that i am willing to Supervisor the candidate's research work.

Place :

Date : Signature of Joint - Supervisor

**CONSENT OF THE HEAD OF THE DEPARTMENT AND THE DEAN
(PG STUDIES & RESEARCH)**

- a) Consent of the Head of the Department in which the candidate works : Yes / No
(For Part - Time (Internal candidates only)

Place :

Date : Signature :

Name :

Department :

b) Consent of Head of the Department where the candidate proposes to register for work (For all candidates) : Yes / No

Place :

Date :

Signature

Name :

Department :

b) Approval of the Dean (PG & Research) : Yes / No

Place :

Date :

RECOMMENDATIONS OF THE BOARD OF RESEARCH

Admitted / Not Admitted for Provisional Registration in the Ph.D. Programme
Full-Time / Part - Time (Internal) / Part - Time (External).

(DIRECTOR - RESEARCH)

Panel of Names suggested for the Doctoral Committee:

(At the least two names, excluding Supervisor, Research Co-ordinator must be given by the Supervisor)

Sl. No.	Name	Area of Research Interest	Designation	Official Address with Pincode	E. Mail & Mobile Number
1					
2					
3					

**MEENAKSHI ACADEMY OF HIGHER EDUCATION & RESEARCH (MAHER)
(Deened to be University)**

No.12, Vembuli Amman Koil Street, West K.K. Nagar, Chennai - 600 078

SEMESTER PROGRESS REPORT FOR Ph.D PROGRAMME

Period ending 30th June / 31st December

Year :

- (i) The progress reports shall be submitted by the candidate in triplicate to the Research Supervisor accompanied by a report by the candidate about the work carried out during the period of this report (in about 300 words) duly signed by the candidate and countersigned by the supervisor (s).
- (ii) The Research Supervisor shall fill his part, sign it and get it countersigned by the respective HOD / HODs (HODs applicable only in interdisciplinary field of research wherever the work is done)
- (iii) The first copy shall be retained by the Research Supervisor for placing in before the Doctoral Committee and for subsequent office record, the second copy shall be sent to the Dean (PG & Research) through the HOD and the third copy shall be sent to the parent Institution wherever applicable.

1. Particulars about the candidate

- a) Name :
- b) Reg. No. :
- c) Designation (if applicable) :
- d) Institution where employed (if applicable) :

2. Registration Details

- a) Category : Full - Time /
Part - Time (Internal) /
Part - Time (External)
- b) Date of Provisional Registration
with MAHER references :

Particulars of the Supervisor (s)

(i) Supervisor & Guide

- a) Name :
- b) Designation :
- c) Institution(s) where employed :

(ii) Co-Guide (if any)

- a) Name :
- b) Designation :
- c) Institution(s) where employed :

- 3. Name of the Faculty and the Department :**
where Ph.D research is conducted :

4. Area of Research

- a) Area of work :
- a) Tentative title :

5. Details of progress

- a) Whether the candidate's report in duplicate is enclosed : Yes / No
- b) Whether published any papers, (if Yes, attach copy) : Yes / No
- c) Whether attended Seminars / Conference (if Yes, furnish details) : Yes / No
- d) Whether completed the prescribed course work : Yes / No
(if yes, how many? Furnish details of the course work)
- d) Whether completed comprehensive examination : Yes / No

- 6. Has the tuition fees been paid for the year? : Yes / No**

- 7. Has the registration fees been paid for the period of the report? : Yes / No**

(* Enclose Xerox Copies of Demand Draft)

Date :

Signature of the candidate

8. Remarks of the Supervisor on the progress during the period of report.

- a) Attendance : Satisfactory / Not Satisfactory
- b) Progress : Satisfactory / Not Satisfactory
- c) Expected time of completion:.....

Date :

Signature of the Guide

Place :

Seal :

Signature of the Co-Guide

Signature of the Head of the Department

Signature of the Head of the Institution

A TYPICAL SPECIMEN OF COVER PAGE AND TITLE PAGE

TITLE OF THE SYNOPSIS

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Submitted by

 <Italic>

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY



FACULTY OF _____

MEENAKSHI ACADEMY OF HIGHER EDUCATION AND RESEARCH

(DEEMED TO BE UNIVERSITY)

CHENNAI-78

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MONTH AND YEAR

BONAFIDE CERTIFICATE

Certified that this Thesis titled “**TITLE OF THE SYNOPSIS**” is the bonafide work of “**NAME OF THE CANDIDATE**”. who carried out the research under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other scholar.

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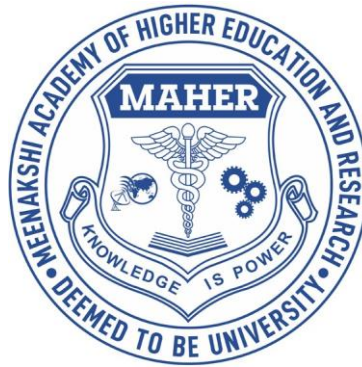
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<<Name of the Guide >>

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AN EXAMPLE OF TABLE OF CONTENTS (Times New Roman Font Size 13)

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1.2	SIGNIFICANCE OF THE STUDY	
1.3	NEED FOR THE STUDY	
1.4	TITLE OF THE STUDY	
1.5	STATEMENT OF THE PROBLEM	
1.6	OBJECTIVES OF THE STUDY	
1.7	NULL HYPOTEHSIS	
1.8	OPERATIONAL DEFINITIONS	
1.9	ASSUMPTIONS	
1.10	DELIMITATIONS	
II	REVIEW OF THE LITERATURE	
2.1	PART-1:GENERAL CONCEPTS	
2.2	PART-2: STUDIES ON.....	
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Abbreviations Used

CD	-	Compact Disk
CGPA	-	Cumulative Grade Point Average
CSIR	-	Council for Scientific and Industrial Research
DD	-	Demand Draft
DM	-	Doctor of Medicine
DST	-	Department of Science and Technology
FRCS	-	Fellowship of the Royal Colleges of Surgeons
ICMR	-	Indian Council of Medical Research
INFLIBNET	-	Information and Library Network Centre
INSPIRE	-	Innovation in Science Pursuit for Inspired Research
IR	-	Independent Research
JRF	-	Junior Research Fellow
MAHER	-	Meenakshi Academy of Higher Education and Research
MC	-	Master of Chirurgiae
MD	-	Doctor of Medicine
MDS	-	Master of Dental Surgery
MOT	-	Master of Occupational Therapy
MOU	-	Memorandum of Understanding
M. Phil	-	Master of Philosophy
MPT	-	Master of Physiotherapy
MRCP	-	Member of Royal College of Physicians (UK)
MS	-	Master of Surgery
M. Sc	-	Master of Science
NET	-	National Eligibility Test
Ph. D	-	Doctor of Philosophy
RAC	-	Research Advisory Committee
R & D	-	Research and Development
SLET	-	State Level Eligibility Test
UGC	-	University Grants Commission