



# **Degree of**

# **Doctor of Philosophy**

# **[Ph.D.,]**

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## **REVISED GUIDELINES**

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**(with effect from July 1, 2016)**  
**Amended on 02.01.2020**

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*(In accordance with the provisions to the regulations of the University Grants Commission (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulation, 2009)*

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# REVISED GUIDELINES

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# Ph.D. Regulations from 01-07-2016

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## **1. Preamble**

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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 research either in any particular discipline or involving more than one discipline that makes a contribution to the advancement of knowledge, which is approved by duly constituted Board of Examiners as required. The Ph.D guidelines are based on the University Grants Commission (Minimum Standards and Procedure for Award of Ph.D Degree) Regulation, 2009 and the PhD degree awarded by Manonmaniam Sundaranar University is in compliance with the UGC (Minimum Standards and Procedure for Award of Ph.D Degree) Regulation, 2009.

### **1.1 Admission Categories**

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Ph. D Registration shall be of two modes only, namely (i) Full Time and (ii) Part Time.

#### **1.1.1 Full-time**

Any candidate with the minimum qualification prescribed by the UGC shall pursue research under a recognized supervisor of the Manonmaniam Sundaranar University in University Departments or in the research centres of affiliated colleges approved by the University as a full-time scholar.

If a scholar doing research under a Supervisor from a non-research centre avails of FDP (Faculty Development Programme) in the course of the research period, the scholar (FDP) shall pursue his/her research only in a University Department/research centre recognized by the Manonmaniam Sundaranar University under a co-supervisor of the respective University Department or Research centre.

The Research Scholars working in a project funded by Major Funding Agencies recognized by Central State Government will be permitted to do the Research Programme as full-time scholar in the Non- Research Centre with the condition he/she will have Co-Supervisor from Research Centre approved by Manonmaniam Sundaranar University.

The Foreign students who seek admission to Ph.D. programme have to submit the following documents.

1. Copy of the Passport
2. Copy of the Student VISA at the time of joining.
3. Copy of the Birth Certificate
4. All other relevant documents as per the requirements mentioned in 1.1.1.

### **1.1.2 Part-time**

The candidates of the following categories with minimum qualifications prescribed by UGC are eligible for registration of part-time Ph.D. Programme.

- Faculty members working as the Permanent/Temporary in University Departments/ University Colleges/Colleges affiliated to any University of Tamilnadu.
- Teachers working in recognized schools throughout Tamilnadu.
- Group - I officers working in Tamilnadu.
- The candidates working in recognized non-academic institutions of University jurisdiction (i.e. Three districts)

Any candidate working in a recognized academic / non-academic institution with minimum qualification prescribed by the UGC shall pursue his/her research in part-time mode under the supervision of a Supervisor approved by Manonmaniam Sundaranar University in a Research Centre or under an approved supervisor in a non-research centre with the co-supervisor of a University Department /Research Centre / with the consent letter from the HOD / Principal, recognized by the Manonmaniam Sundaranar University within its jurisdiction.

Service certificate and No Objection Certificate from the employer should be submitted from those institutions for the candidates of the above category annually, without fail till the submission of the thesis.

## **1.2 Minimum Qualifications for admission of Ph.D Programme**

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For admission to the PhD programme under the above-specified categories, a candidate has to fulfil the following minimum qualifications:

Full- time/Part-time - Pass in Master's Degree with 55% marks for General and OBC Category; 50% for SC/ST/OBC (non-creamy layer)/differently abled or equivalent grade at the Post-graduate level as prescribed by the UGC norms (Master's degree shall be in the same or allied subject after the completion of the Under Graduate degree).Candidates who have passed Master's Degree through Open University system is not eligible; however, candidates who have secured their Master's Degree under (11+1) / (10+2) + 3+2 pattern of courses of study are eligible andCandidates who have 10+3+2+2 pattern of courses of study shall be eligible for Ph.D programme.

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 have successfully completed 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 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 UGC from time to time.

Ph.D admissions for specific applicants such as senior government officials, Judicial officers, academicians, NGOs, Legislators and others who do not possess the minimum percentage of marks in the P.G degree shall be considered for Ph.D admissions, if they comply the following conditions :

- (a) They should not claim any teaching position in any higher education institution.
- (b) They should submit an undertaking to the effect that the Ph.D degree obtained under this category shall not be utilized for any monetary benefit.
- (c) The topic of Ph.D programme shall be of social relevance.

### **1.3 Admission Procedure**

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- (a) Advertisement for PhD qualifying examination will be given in Newspapers / University Website twice a year and the admission will be in January and July of every calendar year.
- (b) Admissions will be restricted to the number of vacancies available and the willingness of the supervisor.

#### **1.3.1 Entrance Test and Interview**

- a) **Entrance Test:** Candidates seeking admission for Full – time, Part-time will be admitted through a common entrance test for each discipline, followed by an interview. Both the entrance test and the interview shall be organised by the University Research Section in the University premises. The results are valid for one year.

- b) The Entrance Examination will comprise 50 multiple choice questions with 4 options (A, B, C & D) for 50 (50 x 1 = 50) marks with a maximum time limit of 90 minutes. The syllabus and question papers will be as detailed below:

Entrance Examination	Number of Questions (50)	Research Methodology Questions	Subject concerned Questions
	50%	25%	25% (PG Syllabus)
Based on the Syllabus already approved by the SCAA			

The weightage of qualifying Entrance Examination shall be 50% for Entrance Test, 20% for Interview Marks and 30% for PG Marks.

- c) The Interview will be conducted by an interview committee followed by entrance examination.
- d) For the candidates of any particular discipline, the interview board shall consist of respective Dean/nominee of the Vice-Chancellor, Head of the Department and a representative from an approved research centre from an affiliated college in that discipline nominated by the Vice-Chancellor.
- e) Interview shall be based on the questions in the following four components in equal weightage:
- Research interest of the area
  - Competence to the proposed research
  - Feasibility of the institution to do the research
  - Contribution of new/additional knowledge
- f) The question papers for the entrance test shall be set by the outside members through Controller of Examinations.
- g) UGC NET/UGC/CSIR (JRF) examination / SET/ GATE qualified candidates and Teacher Fellowship holders are exempted from the Entrance Test and Interview.
- h) Separate Application forms shall be submitted by the candidate for Entrance Examination and PhD Registration.

1. Entrance Examination will be conducted in the subjects of Master Degree obtained by the candidate.
2. Pass Percentage in the entrance examination (combined marks of both written examination and interview) shall be as given below:

General : 55%

SC/ST/ BC/MBC/DNC : 50%

- i) Admission to Ph.D programme for students who apply under a Fellowship or as a project fellow in Major Research Projects shall be as a special case and process of admission shall be completed within one month from the date of application in such cases.
- j) The final list of selected candidates after the entrance examination for the PhD programme shall be declared after getting the approval of the Vice-Chancellor.

### **1.3.2 Application for PhD Registration**

- a) The candidates desirous of registering for Ph.D. Programme shall apply in the prescribed application form downloaded from the University 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. After passing the qualifying examination or if exempted as per the norms of the Ph.D programme. Normally the University shall issue notification for Ph.D. admission twice in a year.

- b) Ph.D admission shall be done in two sessions (i.e) January and July session. For that Registration shall be done during September and April itself through online. However, fellowship candidates, the registration shall be done as a special case.

Course Work to be decided by the concerned Doctoral Committee by choosing approved courses by SCAA and the Mark sheet will be issued by the Controller of Examination

- c) The candidates may choose their Supervisors and Research Centres and mention the relevant details in the application for PhD Registration.
- d) Research Fees shall be notified by the Research Section.



## 1.4 Period of Research and Extension

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From the date of commencement (as notified by the Research Section) of the Ph.D programme, the minimum and the maximum period prescribed for completion of Ph.D. Programmes are as follows:

Category	Minimum Period of the Programme	Maximum period of the Programme
Full-time	2 years for candidates with M.Phil.	4 years
	3 years for other candidates	5 years
Part-time	3 years for candidates with M.Phil.	5 years
	4 years for other candidates	6 years

### 1.4.1 Extension:

The request for extension beyond the maximum period should be made through the Supervisor. Such request for extension shall be decided by the Vice Chancellor for deserving candidates.

### 1.4.2 Exemption for Maternity Period

When a request for extension of maximum research period is received with prescribed extension fee from Women candidates, a maximum of 6 months extension shall be allowed for the maternity period after getting medical certificate.

## 1.5 Residential Requirements

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### 1.5.1 Full Time

The candidate under this category has to work under an approved Supervisor and shall be available during working hours for curricular, co-curricular and related activities in a University Department/ Research center. This is also applicable to every USRF / JRF / SRF / Fellow in a Research project or with stipend from any other funding agency or a non-stipendiary fellow for the minimum period specified.

All full-time scholars should sign in all working days in the attendance register maintained by the respective department/research center.

### 1.5.2 Part-time

The candidate should work under Supervisor and interact with the Supervisor periodically till the submission of Synopsis and Thesis.

## 1.6 Doctoral Committee

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- Doctoral Committee should have 2 members.
- There shall be a Doctoral Committee for every scholar to monitor the progress of research work.
- For every scholar, the Supervisor shall furnish a panel of four experts with Doctoral qualification in the field of proposed research after getting concurrence from them. Of which two experts from the same department of the College / other related department of the same college / University Departments (category -1) and two experts from other affiliated colleges of this University or nearby Universities / experts from nearby R&D Departments /nearby national laboratories (category-2) from which each one will be selected from the above two categories by the Director – Research. Every Doctoral Committee meeting should be convened by Supervisor, Joint Supervisor (if any) and two subject Experts. Every member of the Doctoral Committee should be a Ph.D., degree holder and also a full time faculty member of any educational /research institutions.
- The Supervisor of the scholar shall be the convener of the Doctoral Committee.
- The Joint Supervisor, if applicable, shall also be a member.

The Doctoral Committee shall meet three times during the Ph.D. programme to decide the following:

- (i) To approve the research proposal and prescribe the course work within two weeks from the date of registration;
- (ii) To assess and monitor the quantum of work done and confirm the provisional registration by the candidate after one year from the date of registration;
- (iii) To approve the Pre-PhD presentation, approval and synopsis& Thesis and panel of examiners for adjudication of the thesis;

The minutes of the Doctoral Committee shall be forwarded by the Head of the University Department / Head of the Department duly forwarded by the Principal /Director of the Institute to the Director, Research. However, the meetings of Doctoral Committee should be informed to the Director (Research) with a copy to the Head of the Department / Principal / Director of the Institute well in advance.

The Director (Research) shall permit, if deemed fit reasons, Change of Doctoral Committee member for the scholar based on the request of the supervisor under extraordinary circumstances such as

- i. In the case of change of Supervisor
- ii. Topic of research changed before confirmation of the Provisional Registration
- iii. Doctoral Committee member is away from the place of work for more than 2 years
- iv. Doctoral Committee member passed away
- v. Member not responding to attend further Doctoral Committee meetings (after the First Doctoral Committee meeting).
- vi. In all the above cases or any other compelling reasons, the Vice-Chancellor shall nominate an alternate Doctoral Committee member from the panel furnished by the Supervisor.

## **1.7 Programme Structure**

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- Every member of the Doctoral Committee should be a Ph.D., degree holder and also a full-time faculty member of any educational /research institutions.
- The Doctoral Committee of a scholar shall meet within two weeks from the date of communication of his/her provisional registration to prescribe the course works.
  1. Candidates with PG qualification should earn 16 credits as per UGC Regulations in the following option:
    - 4 Course works of 4 credits each  
OR
    - 3 Course works of 4 credits each and 1 mini project of 4 credits
  2. Candidates with M.Phil. qualification should earn 8 credits as per UGC regulations in the following options
    - 2 Course works of 4 credits each  
OR
    - 1 Course work of 4 credits and 1 mini project of 4 credits.

The above course work should be recommended by the Doctoral Committee. The courses shall be selected.

- (a) From the P.G. / M.Phil. programmes offered by the University
- OR
- (b) From the courses as prescribed by the Doctoral Committee and approved by the concerned BOS duly forwarded by the research supervisor and the HOD / Head of the Research Centre. For such courses, the research supervisor has to conduct the classes as per the University norms and should not be shown as additional work load.
- (c) The candidate will be allowed to continue Ph.D. research based on the recommendation of the second Doctoral Committee Meeting.
- Only course works registered after the first Doctoral Committee meeting shall be counted towards this requirement. Any course work already passed by the scholar prior to provisional registration shall not be counted for this purpose.
  - The scholar shall attend classes along with PG/M.Phil students and will be evaluated in the same relative grading scale of the course work.
  - The scholars can also opt for a maximum of one online course through SUYAM portal / Course Era portal as one of their Course work, which shall be decided by the Doctoral Committee and the Ph.D. Supervisor shall act as the Course Instructor. No change in the course works prescribed shall be made without the approval of the Doctoral Committee.
  - The prescribed course works shall normally be completed within two years from the date of provisional registration for both Full-time and Part-time scholars. If the scholar fails to complete the confirmation of provisional registration beyond three years after his/her registration for the Ph.D. programme, the registration of the scholar shall stand cancelled.
  - Regularly offered PG electives shall not be taken as Special Elective and the scholar shall wait to undertake such course work when it is offered to the PG students in the Department.
  - If any course work, specific to the area of research has to be newly designed, then such course work shall be formulated as a Special

Elective to be covered in not less than 45 contact periods of instruction and the course work syllabus shall be designed by the Supervisor, recommended by the Doctoral Committee and shall be approved in the Board of Study of the Concerned Faculty and Academic Council. These course works shall be of PG level. A scholar shall be permitted to undertake only **one such Special Elective**. If any approved Elective not offered to PG students and attended by less than five research scholars, such course work shall be considered only as Special Elective.

- In the case of Special Elective, details of contact classes shall be maintained in the attendance register. The evaluation pattern for internal assessment will be similar to that of PG courses and end semester examination shall be conducted. However, for awarding grades, the absolute grading scale shall be followed.
- Passing minimum for Course Work examination (including mini project) shall be 55% or relevant CGPA. The scholar who fails to secure 55% or relevant CGPA of the total marks, he/she shall undertake one more course work relevant to the area of research offered under any approved PG programme of the University with the recommendation of the Doctoral Committee or rewrite the examination from any one of the course works (other than the Special Elective) undertaken, to improve the relevant CGPA. Mini Project carried out by a Ph.D. scholar as part of his/her course work, shall have the following components:
  - Objective and methodology of the problem
  - Literature survey
  - Preliminary results of the research work
- Format of the mini project shall be the same as like that of a thesis.
- Total number of pages shall be between 50 and 80 pages.

- The Doctoral Committee shall value the mini project and submit the marks to the Controller of Examinations and the same marks would be incorporated in the mark sheet along with the marks of the other course work examinations. The mark detail for coursework examination is given below.

Exam	Internal	Passing Minimum	External	Passing Minimum	Total Passing	
					Minimum	Maximum
Theory	25	Nil	75	30	50%	100%
Mini Project	Nil	Nil	100	55	50%	100%

With regard to selection of Course works offered at the Research Centres of Autonomous colleges, the Principal of the concerned Research Centre will conduct the Exam and submit the marks to the Controller of Examinations - COE of Manonmaniam Sundaranar University, Tirunelveli; The COE of MS University will issue the Statement of marks. Those candidates who would like to do all the four course works at a time in one semester shall be allowed to complete 4 course works in the same semester itself.

On the successful completion of the prescribed course works and Mini Project, copy of the mark sheet for the course works issued by COE and the report of the mini project research and performance assessment sheet and evidence for seminar presentation shall be detailed in the minutes of the Doctoral Committee and forwarded to the Director (Research) for confirmation of provisional registration and to proceed further with his/her research work within a month.

## **1.8 Monitoring the progress of the Scholar**

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Commencing from the date of provisional registration till the submission of thesis, all research scholars shall submit the progress report form in the prescribed format duly signed by the Supervisor and Head of the Department of the Supervisor at least three weeks before the end of every semester.

One Seminar presentation shall be given by the scholar before the confirmation of the provisional registration and another presentation prior to the submission of synopsis. Both Seminars shall be open to faculty members and research scholars.

After the confirmation of provisional registration, the progress made by the research scholars shall be reviewed by the Doctoral Committee once a year.

Full-time research scholars shall sign the attendance register in the Department of the Supervisor on all working days. They are eligible for a total of 15 days leave every semester and a maximum of 30 days in a calendar year and 45 days On Duty per year (as recommended by the Doctoral Committee) which they shall avail after obtaining permission from the Supervisor and Head of the Department. However, those scholars who are availing financial assistance from funding agency shall be governed by the rules of the respective agency.

## **1.9 Conversion from Full-Time to Part-Time and Vice-Versa**

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A candidate will be permitted only once during the period of research to convert from Full-time to Part-time and vice-versa and in such cases, the following rules will be applied to count the period of research.

From 'Full Time to Part Time' candidates:

- i. Appointment order with pay details
- ii. Selection committee Minutes
- iii. Service Certificate
- iv. No Objection Certificate

The entire period spent as full-time will be considered for Part-time Conversion. From 'Part Time to Full Time' candidates:

Relieving order from the Working institution of the candidate 60% of the Part-time period will be considered for conversion.

If a candidate registered in Part-time category is selected under a Scholarship/ Fellowship programme/ scheme, including Faculty Development Programme of UGC, he/she shall be permitted to continue the research as a Full-time research scholar in the department/research centre where the guide works.

## **1.10 Cancellation of Ph.D Registration**

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**Cancellation may be done in two modes:**

1. Guide & Co-Guide (if applicable) shall submit a letter for cancellation of the Ph.D. registration of the candidate along with the request of the candidate.

**OR**

The candidate shall submit a letter for cancellation of the Ph.D. registration duly forwarded by the Guide & Co-Guide (if applicable)

2. Guide & Co-Guide (if applicable) shall submit a request for the cancellation to the University. If the Scholar is not showing satisfactory performance for one year, the Supervisor may intimate to the research section about the non-performing candidate to take appropriate action. The Research Section in turn would send a Show Cause Notice with a period of 30 days to the candidate concerned. If the candidates respond to the Show Cause Notice and willing to continue the programme, he / she will be permitted to continue the same with the consent of the Guide & Co-Guide (if applicable).

If there is no response within one month of period candidate and Guide & Co-Guide (if applicable) supervisor will be intimated about cancellation.

If controversy of any kind arises between the Supervisor/Co-Supervisor and the Ph.D scholar, which could not be settled through mutual agreement, that should be referred to the Research Board of the University.

A Research Board appointed by the Vice-Chancellor will decide on cases of dispute with regard to the cancellation of PhD registration or change of Supervisor, depending upon the merit of the case

If there is any dispute between the Guide and the candidate at the end of the programme and if the existing Guide of the candidate is to be replaced with another person, then, that person would be appointed only as the 'convener' of the Ph.D. programme. If such appointed 'Convener' wants to be designated as the 'Guide' to the candidate, then, the scholar concerned should work with him/her at least for a minimum period of 6 months before the submission of Ph.D. thesis by the candidate.

Change of Guide (as per UGC norms) shall not be entertained. But the same shall be permitted by approval of the Vice-Chancellor in case of exigencies.



## 2. Research Supervisor

### 2.1 Approval of Research Supervisor

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- (a) Any full - time Faculty member who is having Ph.D. degree from a recognized University working in a University Department / Research Centre / Affiliated Colleges / Self Finance stream / Self Finance Colleges affiliated to this University shall be recognized as a Research Supervisor as per his/her P.G. and Ph.D. discipline.
- (b) The applicant should produce Service Certificate certified by the Principal of the Concerned College by clearly stating the nature of employment along with other required documents mentioned in the Guideship Application Form and payment of required fee. The application for Guideship will be considered with Provisional Certificate of Ph.D degree for the candidate awaiting the immediate next convocation in that academic year.
- (c) Any regular Professor of the University/College with at least five research publications in refereed journals inclusive of 2 publications in SSCI / SCI Journals (after Ph.D.) must be the eligibility criteria and any regular Associate/Assistant Professor of the university/ college with a Ph.D. degree with at least two research publications in SSCI/SCI journals (after Ph.D.) must be eligibility criteria at the time of submitting his / her application will be recognized as Research Supervisor. They should have one year service in present institution.
- (d) The applicant who is working in Self Finance Stream / Colleges should have at least two years total eligible service with two publications in SSCI / SCI Journals (after Ph.D.) shall be the eligibility criteria. There is no mandate of selection of Co – Guide for scholars registering under the faculty members working in Self Finance stream / Colleges.
- (e) The processing fee for Guide ship approval is Rs.3000/- only.
- (f) Review of academic research performance of the supervisors shall be done once in three years to ensure their academic research quality. Also, the norms prescribed by UGC for assessing API scores prescribed in Category III for CAS shall be adopted to ascertain the performance of the supervisors.

## **2.2 Registration under a Supervisor**

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2.2.1 A research supervisor / co-supervisor who is a Professor, at any given point of time cannot guide more than 8 Ph.D. scholar. An Associate Professor as research supervisor can guide up to a maximum of 6 Ph.D. scholars and an Assistant Professor as research supervisor can guide up to a maximum of 4 Ph.D. scholars including co-guidance. Associate Professor with 4 years of experience with API scores equal to the API scores needed for the post of Professor, would be permitted 8 number of vacancies based on the recommendation of the Subject Expert.

Based on the academic research performance of the supervisors in the designation of Assistant Professor and Associate Professor, additional allotment of candidates (not exceeding two candidates) may be considered by the Vice-Chancellor based on the merit case-by-case.

Faculty shall apply for the approval of Guideship and candidates can register under them till their retirement.

- Guide ship shall be obtained after retirement if working in MSU affiliated Colleges (including Self Finance Colleges) / Research Centres / R & D institutions of MSU jurisdiction Scientists/Professors/Associate Professors from reputed National/International Laboratories/ retired Professors from IIT's/ University Departments/National Institutes working in University Departments/Approved Research Centres of this University until 64 years (based on the research accomplishments) in order to promote research in this region and due to address the shortage of Supervisors. A committee constituted by the Vice-Chancellor shall assess the research accomplishments of such faculty members and recommend for the guide ship. However, it may be further extended upto 70 years as being followed in IITs, National Research Organizations and Central Institutions. Case wise Age Limit extension shall be granted based on the recommendations from Deans Committee / Research Committee / Expert Committee and approval from the Vice-Chancellor. If approval is permitted, registration of scholars shall be done before the age of 68 years in the case of Supervisors sanctioned with age limit extension upto 70 years.

2.2.2 There shall be no compulsion on the Supervisors to hold the full complement of research scholars all the time.

A retired faculty member/ scientist of a University Department/ affiliated college/ approved research centre affiliated to Manonmaniam Sundaranar University will be allowed to continue as a PhD Supervisor on the following conditions:

- a) When he/she is a Principal Investigator of a major research project funded by government agencies like UGC/CSIR/ICAR etc., and the period of the project is a minimum of two years and the major research project is to start within 6 months from the date of retirement of the Supervisor. Further, the proposed Ph.D. candidate should work as stipendiary research fellow in the concerned project of the particular Supervisor.
- b) When the Supervisor is an Emeritus Fellow / Emeritus Professor of a recognized National agency like UGC/CSIR/ICAR etc., PhD candidates shall be allowed to register under such supervisor provided the candidates receive monthly stipend from the funding agency of the project.
- c) Number of Ph.D. vacancies shall be restricted to 6 for the Guides who obtains guide ship after retirement based on his/her re-employment with any research centre, having additional facility as required for taking up the new Ph.D. vacancies considered and such Guides should have already been an established research experts in their relevant field through their previous works/publications done before re-employment.

### **3. Research under an Approved Supervisor**

#### **3.1 Supervisor in a Research Centre**

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Each candidate should work under the supervision of a recognized Supervisor working in a University Department / approved Research Centre of the University in the field of candidate discipline. All communications to the University regarding Ph.D research should be sent through the Supervisor.

#### **3.2 Supervisor in a Non-Research Centre**

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A part-time candidate, who intends to do PhD under a Supervisor working in a Department of a College which is not a recognized research center, has to register under a Co-supervisor in a recognized research center of the respective discipline.

Whenever there is a Co-supervisor, all communications to the University regarding PhD research should be routed through the Supervisor and the co-Supervisor.

### **3.3 Subject of Award**

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Normally a candidate will be allowed to register based on the PG qualification and the PhD degree shall be awarded in that discipline.

***Inter-disciplinary:*** A candidate will be allowed to do PhD under inter-disciplinary category whenever necessary by giving justification while applying for the PhD programme.

### **3.4 Pre-PhD Presentation**

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The Pre-presentation is a requirement to enrich the scholar and to fine tune his research presentation. This presentation shall be conducted before the submission of synopsis at the Research Centre concerned in the presence of Doctoral Committee members, Faculty members, Research Scholars. The Pre-PhD shall be conducted after notifying the same by the Supervisor at least 7 days before the date of presentation. The scholar is expected to present the first draft of the research work or can explain the findings/problems faced. The gathering may suggest ideas/references to be consulted/suggestions to improve the work and so on. The minutes of the Pre-PhD presentations along with signature of participants shall be forwarded by the Supervisor/Co-Supervisor to the University.

## **4. Submission of Synopsis and Thesis**

### **4.1 Title**

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A candidate may give an outline of the title / topic of the research or specifies the broad area of his/her research at the time of registration for PhD programme. The Ph.D. scholar may be allowed to submit the Synopsis / Thesis (after getting request from the individual duly forwarded by his/her Guide) if there is minor correction in the title as follows:-

1. Punctuation Markings
2. Article (A, An, The) changes
3. Singular and Plural changes
4. Preposition changes
5. Addition / Deletion of one or all the above without changing the ultimate meaning of the title which has been approved by the Doctoral Committee.

## 4.2 Submission of Synopsis and Thesis

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- The scholar shall be permitted to submit the Synopsis and Thesis only after completion of the minimum duration of the programme applicable to the scholar. However, a scholar shall be permitted to submit the Synopsis and Thesis six months prior to the completion of his/her minimum duration, provided the scholar should have published five research papers in UGC refereed journals in the field of specialization as first author or second author, if the Supervisor is first author, based on his/her research work and specifically recommended by the Doctoral Committee.
- The scholar should have published at least two research papers for completion of Ph.D. degree compulsorily in the following Journals after joining the programme as first author or second author, if the Supervisor is first author or one patent granted based on his/her research work and candidate should submit relevant evidences for the publications.
  - **For the candidates belonging to language disciplines:** UGC approved Journals.
  - **For the candidates belonging to Arts discipline:** Journals under Social Science Citation Index (SSCI) and UGC approved Journals.
  - **For the candidates belonging to Science discipline:** SCI Journals, Journals indexed under SCOPUS / Web of Science / UGC approved list.
- Candidates should submit the extracts of the journal publications at the time of thesis submission. The journal publications should include the following details
  1. Details of the research scholars like Name, Register Number, Name of the Research Centre and place.
  2. Details of the Supervisors like Name, Designation, Department, College and Place.
  3. Details of the affiliating University Like Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli-627012, TamilNadu, India.
- The Supervisor should submit the panel of Examiners (in the prescribed format) with the approval of Doctoral Committee in a sealed cover through the scholar at the time of submission of Thesis.

- The Thesis shall report, in an organized and scholarly fashion, an account of original research work of the scholar leading to the discovery of new facts or techniques or correlation of facts already known and demonstrating a quality contribution to the advancement of knowledge as well as the scholar's ability to undertake sustained research.
- Thesis shall be prepared in accordance with the format and specification prescribed. One copy of thesis in PDF format and three copies of soft binding shall be submitted. The Thesis shall include a Certificate from the scholar, Supervisor and Joint Supervisor, if applicable, as prescribed, to the effect that the Thesis is a record of original research work carried out by the scholar and the work reported in the thesis is not copied from other sources/ not submitted elsewhere for a degree or diploma. (Thesis submission form can be downloaded from the website).
- Soft copy of the thesis in PDF format shall be submitted in CD to the University.
- Fees shall be paid by the scholars for every year during the notified period till the submission of the Thesis. Any other fees as applicable shall be paid as notified from time to time.

### **4.3 The act of Plagiarism**

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- Compulsorily URKUND software should be followed in order to check Plagiarism and permissible range upto 25% with respect to Results and Discussion part of the Thesis for the Science Subjects and Analysis and conclusion part for the Arts subjects (Should produce the certificate from the Supervisor and Joint Supervisor (If applicable) on submission).
- In the case of scholars who have committed the act of plagiarism in the Thesis/journal publication, his/her Thesis/degree shall be forfeited and his/her research registration shall be cancelled and also he/she shall be debarred register for any other programme in the University.

- For the abetment of above such action, the recognition of his/her Supervision shall be withdrawn for a period of five years and he/she shall be debarred from guiding the scholars for any research programme in the University till such period.
- If any scholar has committed an act of self-plagiarism in the publications and ascertained by the Committee constituted by the Vice-Chancellor, such work shall not be allowed in his/her thesis and the scholar shall be fined up to Rs.50000 with a warning to the Supervisor. The Synopsis of such scholar shall be accepted only based on a new publication in a referred journal (as applicable). If plagiarism is detected in the publications of any other scholar under the same supervisor, the recognition of his/her Supervisor ship shall be withdrawn for a period of five years and he/she shall be debarred from guiding the scholars for any research programme in the University till such period.

## **4.4 Evaluation**

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### **Appointment of Examiners**

The panel of ten examiners who are experts in the field of research of the scholar, five from India other than Tamil Nadu and Pudhucherry (Zone wise) and five within Tamil Nadu and Pudhucherry except Manonmaniam Sundaranar University jurisdiction, along with their publications details during the last five years and their acceptance letter in the prescribed format. In the case of Tamil discipline alone, Pudhucherry is considered as external. No two experts shall be from the same Institution. The Vice-Chancellor will choose one examiner from outside the state and one Examiner from within the state from the panel.

- Panel of Examiners from 5 Zones of India:
- Out of 5 zones of India, Panel of Examiners should be from at least 3 zones in any case two examiners should not be in the same institutions. As far as possible the supervisors are advised to send one examiner from each zone.

- E-mail consent to be the Ph.D. adjudicators from the panel members shall also be taken as acceptance, specific undertaking is not required.
- If there is inordinate delay in the acceptance of Examiner ship or submission of report by any of the examiners of one category, the Vice-Chancellor can choose the examiner from the other category.

#### **4.5 Evaluation Rules**

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- Degree will be awarded to the candidate only if both the examiners recommend the award and on successful completion of the Viva-voce examination by the candidate. Such a thesis belongs to the category RECOMMENDED FOR THE AWARD. Further, the examiners will be requested to categorize the thesis either as COMMENDED or HIGHLY COMMENDED.
- If any examiner recommends Revision/Re-Submission of the thesis, the candidate should submit the revised/Re-Submission of thesis **within six months**. The revised thesis will be sent for evaluation to the same examiner, if he/she has specified so or to another examiner on the basis of his/her direction. If one examiner or both examiners suggest a few minor corrections and not insist on resubmission, the Research Supervisor will be responsible to verify and certify that the corrections suggested by one or more examiners have been carried out in the copies of thesis submitted before the viva voce. Such a thesis shall belong to the category RECOMMENDED FOR REVISION BEFORE VIVA-VOCE.
- If a PhD thesis is commended by one examiner and rejected by the other examiner, the PhD thesis will be evaluated by a third examiner (different from earlier two examiners) approved by the Vice-Chancellor from the examiners available in the panel submitted earlier. The adjudication result will be declared by taking into account the report of the examiner who had approved the thesis and that of the newly appointed third examiner.
- Remuneration for Evaluation of Thesis - Rs.2000/-.



## **4.6 Viva-Voce Examination**

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- If the thesis is recommended for the award of the degree by the two examiners, a public viva - voce will be conducted on a working day, after proper announcement, with 15 days' notice to the candidate as well as the public. The Convener of the Viva Voce Board will be the Guide / Supervisor. The External Examiner will be the member of the Viva Voce Board. The Research Supervisor is responsible for the conduct of Doctoral Committee and other Examinations like Pre - Ph.D presentation and Viva - Voce Examination. The reports of the examiners will be made available to the Examiner of viva-voce board, Doctoral Committee members (2 members, Supervisor (Convener) and the co-Supervisor (if any). It is duty of the Convener to consolidate the results of the Viva-Voce Examination.
- If a candidate fails to defend his/her thesis in the viva-voce examination, the candidate may be permitted to reappear for the viva-voce after a period of three months. No further chance will be given to the candidate on any account.

## **5. Provisional Certificate and the Degree**

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The candidate will be issued provisional certificate after successful completion of the viva-voce examination and on approval of the same by the Vice- Chancellor and subsequently to be ratified by the Syndicate. For official purpose, the date of Viva-voce is to be treated as the date of award of the Ph.D Degree. The degree will be formally awarded in the ensuing Convocation.

## **6. Research Centre Recognition /Renewal**

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- The Head of the Department in an institution is the Head of the Research Centre, provided he/she has Ph.D degree and other requirements of Manonmaniam Sundaranar University. In a case, if the Head of the Department does not have Ph.D degree and fulfil other requirement of the Manonmaniam Sundaranar University then a faculty member with Ph.D. qualification and academic accomplishments as recommended by the Principal shall be the Head of the Research Centre which should be communicated to The Director, Centre for Research, M.S. University.

- All the University Departments are research centres of the University. A Department of a College affiliated to the Manonmaniam Sundaranar University will be recognized as a Research Centre by the Syndicate, if it fulfils the following conditions:
  - Submission of detailed proposal with fee of Rs. 20,000/-.
  - At least one PG course should be offered in the department.
  - Two approved Ph.D Supervisors should be there to supervise PhD candidates in the department.
  
- Sufficient infrastructure facilities like books, journals, lab facilities etc. should be available in that department. The commission has to ensure whether at least out of two one Guide has 3 years of continuous service left for his/her retirement.
  
- An Inspection Commission consisting of a Convener and a subject expert appointed by the Vice-Chancellor will be sent once in three years, without any prior notice, to all the approved Research Centers of the University.
  
- The Inspection Commission shall assess the facilities and expertise available in a particular center and recommend in its report to the University the PhD programmes to be approved in a particular subject and allied subjects.
  
- The inspection committee is to ensure the adherence of norms stipulated for research centres viz., infrastructure and institutional facilities available. A sum of Rs.20,000 shall be collected from the approved Research Centres as Renewal fee.
  
- The Departments/Research Centres in the colleges affiliated to Manonmaniam Sundaranar University shall only be recognized as Research Centres and not any other research centre /institution which is not affiliated to Manonmaniam Sundaranar University.

## 7. General

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Every candidate has to pay the prescribed research fees every year without fail. If the candidate fails to pay the research fees within the month of registration, he/she has to pay the prescribed fine for default payment. The University reserves the right to cancel the PhD registration of a candidate who does not pay the fees within the stipulated time.

- Each payment should be made through “Demand Draft” drawn in favour of “The Registrar, Manonmaniam Sundaranar University” payable at “Tirunelveli” or **through Challan in the Indian Bank A/c.No.6596950914**. The Demand Draft or challan (IB) should be sent to “Director, Centre for Research, Manonmaniam Sundaranar University, Tirunelveli – 627 012” along with a covering letter duly forwarded by the Supervisor.
- All communications by the scholar to the University should be sent only through the Supervisor (and Co-supervisor, wherever applicable).
- All applications, either for PhD registration or for PhD Guideship shall be addressed to the “Director, Centre for Research, Manonmaniam Sundaranar University”.
- The Director, Centre for Research shall process the applications and place the Research Section note through the Registrar for Vice- Chancellor’s administrative approval and after wards, Syndicate’s approval, wherever required as per statute. All orders of Ph.D., Registration and Supervisor ship and other administrative orders, shall be communicated by the Director Research. Orders related to sanctioning of Research Centre and award of Ph.D., degree shall be communicated by the Registrar. All other types of communications shall be sent by the Director, Centre for Research.

The Director, Centre for Research is authorized to approve and communicate the matters pertaining to:

- a) Change of Research Center
- b) Change of Supervisor
- c) Change of Title
- d) Releasing the result of Pre PhD-Examination
- e) Fixing Observer for the conduct of Viva-Voce Examination.

- f) Inclusion of Co-Guide
  - g) Cancellation of Co-Guide.
  - h) Permissible Extensions as per regulations.
- 
- Following successful completion of the Evaluation process and the announcement of the award of PhD, the Director, and Centre for Research shall forward a soft copy of the Thesis to the UGC.
  - Any act of plagiarism, if found will be viewed seriously by the University and the penal action will include cancellation of Supervision of the concerned Supervisor and cancellation of the degree awarded to the candidate.
  - Items not covered under the above said regulations will be dealt with by the Vice-Chancellor or a Committee duly appointed by the Vice-Chancellor.

## ANNEXURE - I

### FEE DETAILS FOR FULL-TIME & PART-TIME CATEGORY

(For candidates to be admitted on or after 01-07-2016)

Each payment should be made through Indian Bank Challan A/c.No. 6596950914 or online payment.

S.No	Item	Within India In Rs
1	Qualifying Examination for Ph.D. Programme	1000
2	Registration Fee	1,500
3	<b>Full Time</b>	<b>(University Fee + Library) + Research Centre fee</b>
	Research Fee per year for Arts	(8,000+1,000) + (4,000 + 500)
	Research Fee per year For Science	(11,000 +1,000) + (5,500 + 500)
4	<b>Part-Time</b>	<b>(University Fee + Library + Research Centre) fee</b>
	Research Fee per year for Arts	(10,000+1,000) + (5,000 + 500)
	Research Fee per year For Science	(13,000 +1,000) + (6,500 + 500)
	[If the scholar selects University department as the Research Centre, then the Research Centre fee should be paid along with the Research Fee]	
5	Research Fee for Physically Challenged Candidates up to the minimum period and Viva-Voce Fees	NIL
6	Fine for default payment of research fee (for each default Payment)	500 More than 6 months Rs. 1000/-
7	Extension Fee	As prescribed by Research Board at the time of recommending extension
8	Part-I (course work) Examination Fee	1000 per paper
9	Copy of the Documents submitted by the Candidates required by them	500
10	Guideship Application Processing Fee	3,000
11	Change of Supervisor	7,500
12	Change of Research Centre	5,000
13	Conversion from Full Time to Part time (Vice-versa)	5,000

14	Pre Ph.D. Presentation	1,000
15	Cancellation of Ph.D. Registration	Nil
16	Issuing of duplicate Certificates	2,000
17	Fees for Doctoral Committee Meeting	5,000 for each meeting
18	Fee for Viva – Voce Examination for Full Time, Part Time Internal / External candidates.	10,000
19	UGC Compliance Certificate - Ordinary - Tatkal Scheme)	3,000 7,000
20	Thesis Submission Fee	10,000
21	Change of Discipline	5,000
22	Certificate of List of Awardees under the Supervision of the Supervisor	1,000
23	Plagiarism Check	1,000
24	Exemption Certificate after getting UGC compliance certificate	500
25	Publication of Thesis	1,000
26	World Education Service Form (WES)	5,000
27	Change of Doctoral Committee Members	5,000
28	Thesis submission certificate	500
29	Certificate for medium of study	500
30	Co-Guide inclusion	5000

### **For Foreign Students:**

A student from any developed countries should pay \$3000 per annum and students from SAARC countries should pay \$300 per annum and no other fee shall be paid by them for the Ph.D Programme.

### **Exemption:**

- Exemption of Research fees to the Physically Challenged candidates for the minimum period stipulated for Ph.D. Programme.
- Exemption of Viva-Voce Examination fee to the Physically Challenged candidates.

**Note:** University reserves the right to revise the fee at any time. The above fee structure is applicable only to those who register for Ph.D from 01.07.2016.

## **ANNEXURE - II GUIDELINES FOR THE PREPARATION OF SYNOPSIS**

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 at the end of specification)
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. The Synopsis should have the following page margins:**

<b>Top edge:</b>	<b>30 to 35 mm</b>
<b>Bottom edge:</b>	<b>25 to 30 mm</b>
<b>Left side:</b>	<b>35 to 40 mm</b>
<b>Right side:</b>	<b>20 to 25 mm</b>

The Synopsis should be prepared on good quality white paper preferably not lower than 80GSM. One and a half line 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 structure is applicable only to those who register for Ph.D from 01.07.2016.

## REFERENCES

- 1. 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.
- 2. 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.
- 3. 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, 3577- 3593.
- 4. Books**  
Holt, DH 1997, Management Principles and Practices, Prentice-Hall, Sydney.
- 5. E-book**  
Aghion, P & Durlauf, S (eds.) 2005, Handbook of Economic Growth, Elsevier, Amsterdam. Available from: Elsevier books. [4 November 2004].
- 6. 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.
- 7. 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.
- 8. Website**  
Australian Securities Exchange 2009, Market Information. Available from: [http://www.asx.com.au/professionals/market\\_information/index.html](http://www.asx.com.au/professionals/market_information/index.html) [5 July 2009].
- 9. Patent**  
Cookson, AH 1985, Particle trap for compressed gas insulated transmission systems, US Patent 4554399.
- 10. Thesis: Unpublished**  
Hos, JP 2005, Mechano chemically synthesized nano materials for intermediate temperature solid oxide fuel cell membranes. Ph.D. thesis, University of Western Australia.
- 11. Newspaper: Print**  
Ionesco, J 2001, 'Federal election: new Chip in politics', The Advertiser 23 October,



# **SPECIMEN COPY OF COVER PAGE AND TITLE PAGE**

**A THESIS**

*Submitted by*

**<NAME INITIAL>**

**<REG.NO><DISCIPLINE>**

*in partial fulfilment of the requirements for the award of degree of*

**DOCTOR OF PHILOSOPHY**



**MANONMANIAMSUNDARANAR UNIVERSITY  
TIRUNELVELI – 627 012**

**<MONTH & YEAR OF SUBMISSION>**

## ANNEXURE – III

### GUIDELINES FOR THE PREPARATION OF THESIS

*The scholars are expected to read carefully the Guidelines 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.*

#### 1. 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. 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.

#### 2. SIZE OF THESIS

- Number of pages of PhD. Thesis should be between 100 and 400. Minimum, excluding reference and Annexure is 100
- Maximum, including reference and Annexure is 400
- Double line spacing in MS Word with 12 font size in Times New Roman
- It should be reckoned from the first page of Chapter 1 to the last page of the thesis excluding reference section.

#### 3. ARRANGEMENT OF THE CONTENTS OF THE THESIS

The sequence in which the Thesis material should be arranged and bound is as follows:

1. Cover Page
2. Title page
3. Certificate
4. Abstract not exceeding 4 pages
5. 1-page Acknowledgement
6. Table of Contents
7. List of Tables
8. List of Figures

9. List of Symbols and Abbreviations
10. Chapters
11. Appendices
12. References
13. List of Publications
14. Bio - Data

The Tables and Figures should be included subsequently after referring them in the text of the Thesis. The thesis should be printed on single side only

#### **4. PAGE DIMENSIONS AND MARGIN**

Standard A4 Size bond paper may be used for preparing the copies.

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.

#### **5. 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 of all items from 2 to 14 listed in section 3 should be typed in capital letters without punctuation and centred 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.

## **5.1 Cover Page & Title Page**

A specimen copy of the Cover page and Title page for the Thesis is given above.

## **5.2 Certificate**

The 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 'SCHOLAR' must be typed in capital letters in the left side duly signed. The term 'SUPERVISOR' must be typed in capital letters between the Supervisor's name and academic designation with signature. Signature of the Joint Supervisor (if applicable) with the details specified as above should be included below the Supervisor in the right-hand side.

## **5.3 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 one and a half line spacing using Font Style Times New Roman and Font Size 13.

## **5.4 Acknowledgement**

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

## **5.5 Table of Contents**

The Table of contents should list all captions following it as well as any caption which precedes it. The title page, 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 line spacing should be adopted for typing the matter under this head. Arrangement of the Table Contents for the Thesis is given.

## **5.6 List of Tables**

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

## 5.7 List of Figures

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

**List of Symbols and Abbreviations** - One and a half line spacing should be adopted for typing the matter under this head. Standard symbols, abbreviations, etc. should be used.

## 5.8 Chapters

The chapters may be broadly divided into 3 parts (i) Introduction chapter, (ii) Chapters developing the main theme of the Thesis and (iii) Results, Discussion and Conclusion. The main text shall be divided into several chapters and each chapter may be further divided into several divisions and sub-divisions.

- Each chapter should be given an appropriate title.
- Tables and Figures in a chapter should be placed in the immediate vicinity of the reference where they are cited.
- Footnotes should be used sparingly. They should be typed single space and placed directly underneath in the very same page which refers to the material they annotate.

## 5.9 Appendices

Appendices are provided to give supplementary information, which if included in the main text may serve as a distraction and cloud the central theme under discussion.

- Appendices should be numbered using Arabic numerals, e.g. Appendix 1, Appendix 2, etc.
- Appendices, Tables and references appearing in appendices should be numbered and referred at appropriate places just as in the case of chapters.
- Appendices shall carry the title of the work reported and the same title shall be included in the Table of Contents page.

## **5.10 List of References**

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Any works of other researchers, if used either directly or indirectly, the origin of the material thus referred to as appropriate places in the Thesis should be indicated. The author's publications during the period of research should not be included in the references and can be separately mentioned. 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.

**5.11** Photographs in the photographic paper / A4 size paper shall be included after reference if relevant to the work.

**5.12** Bio- Data of the scholar should be included not exceeding two pages.

The citation may assume any one of the following forms.

### **REFERENCES**

#### **5.12.1 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.

#### **5.12.2 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.

#### **5.12.3 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.

#### **5.12.4 Books**

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

### **5.12.5 E-book**

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

### **5.12.6 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.

### **5.12.7 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.

### **5.12.8 Website**

Australian Securities Exchange 2009, Market Information. Available from: <[http://www.asx.com.au/professionals/market\\_information/index.htm](http://www.asx.com.au/professionals/market_information/index.htm)>. [5 July 2009].

### **5.12.9 Thesis: Unpublished**

Hos, JP 2005, Mechano chemically synthesized nano materials for intermediate temperature solid oxide fuel cell membranes. Ph.D. thesis, University of Western Australia.

### **5.12.10 Newspaper Print**

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

## **5.13 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 UGC refereed Journal publications. Every publication in the journal / conference / seminar / workshop etc., should have the affiliation of Manonmaniam Sundaranar University with full address (Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli 627 012, Tamil Nadu, India).

## **5.14 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

## **6 BINDING SPECIFICATIONS**

- Thesis (3 copies) side pinning/stitching, covered with wrapper printed on 300 gsm white art card with adhesive binding. 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.



## ANNEXURE

### \* Size of the Thesis

- Number of pages of PhD. Thesis should be between 100 and 400. Minimum, excluding references and Annexure is 100
- Maximum, including references and Annexure is 400

The sequence in which the Thesis material should be arranged and bound is as follows:

1. Cover Page
2. Title page
3. Certificate
4. Abstract not exceeding 4 pages
5. Declaration
6. Acknowledgement
7. Table of Contents / Index Page
8. List of Tables
9. List of Figures
10. List of Symbols
11. List of Abbreviations
12. Chapters
13. Appendices
  - 13.1. List of Publications
  - 13.2. Reprint of the Journals
14. Bibliography / References
15. Bio-Data of the Candidate

\* The page dimension should be as follows:  
Standard A4 size.

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

Thesis (3 copies) side pinning/stitching, covered with wrapper printed on 300 gsm white art card with adhesive binding. 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 Size

The general text shall be typed in Font Style Times New Roman and Font Size 12''.

In the Discipline of Mathematics the general text shall be typed in Latex with Font Size 12 point.

- - End - -