



MANONMANIAM SUNDARANAR UNIVERSITY  
Tirunelveli 627 012  
Tamil Nadu, India

Degree of  
Doctor of Philosophy [PhD]

REVISED GUIDELINES (with effect from July 1, 2016)  
Amended on 01.08.2017 .

*(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)*

List of Amendments made in the Research Board Meeting  
held on 21.12.2016.

1.1.1  
1.3.1  
1.3.1(j)  
1.3.1(k) 2(i)  
1.3.2 (b)  
1.7.2  
1.7.6  
2.1.2  
2.1.5  
2.1.6  
2..2.2  
4.1  
4.4(a)(i)  
4.6.3  
6  
7.5  
Annexure - I – 24, 25, 26  
Annexure – I - for Foreign Students

List of Amendments made in the Research Board Meeting  
held on 10.05.2017.

1.2.1  
1.3.2(G)  
1.8.2  
2.1  
2.2.1  
4.7.1  
6

**MANONMANIAM SUNDARANAR UNIVERSITY**  
**Tirunelveli 627 012,**  
**Tamil Nadu**

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

**Table of Contents**

1. Preamble
- 1.1. Admission Categories Full-time / Part-time
- 1.2. Minimum Qualifications
- 1.3. Admission Procedure
  - 1.3.1. Entrance Test and Interview
  - 1.3.2. Application for Ph.D. Registration
- 1.4. Period of Research & Extension
- 1.5. Residential Requirements
- 1.6. Conversion from Full-Time to Part –Time and Vice-Versa
- 1.7. Doctoral Committee
- 1.8. Programme Structure
- 1.9. Monitoring the Progress of the Scholar
- 1.10. Re-Registration
- 1.11. Cancellation of Ph.D. Registration
- 2.1. Approval of Research Supervisor
- 2.2. Registration under a Supervisor
3. Research under an Approved Supervisor

- 3.1. Supervisor in a Research Centre
- 3.2. Supervisor in a Non-Research Centre
- 3.3. Subject of Award
- 3.4. Pre Ph.D. Presentation
- 4. Thesis
  - 4.1. Title
  - 4.2. Submission of Synopsis
  - 4.3. Submission of Thesis
  - 4.4. The act of Plagiarism
  - 4.5. Evaluation
  - 4.6. Evaluation Rules
  - 4.7. Viva-Voce Examination
- 5. Provisional Certificate and the Degree
- 6. Research Centre Recognition /Renewal
- 7. General

Annexure – I Fees details

Annexure – II Guidelines for preparation of synopsis

Annexure – III Guidelines for preparation of thesis

## **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 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 PhD guidelines are based on the University Grants Commission (Minimum Standards and Procedure for Award of PhD 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 PhD Degree) Regulation, 2009.

### **1.1 Admission Categories Full-time / 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 centers 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 / 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**

#### **Category A**

Any teacher with the minimum qualifications prescribed by the UGC and working as a permanent / temporary teacher in the University Departments / University Colleges or Colleges affiliated to Manonmaniam Sundaranar University shall pursue his/her research in part-time internal 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 NOC should be submitted by the candidates of the above category annually, without fail till the submission of the thesis.

The registration of Part time (Internal) candidates who live outside of the jurisdiction of Manonmaniam Sundaranar University can continue only if the candidate completes the minimum period of research within the jurisdiction of Manonmaniam Sundaranar University.

### **Category B**

Any candidate working in a recognized academic / non-academic institution with the minimum qualifications prescribed by the UGC shall pursue his/her research in Part-time category B under the supervision of a Supervisor working in a University Department/Research Centre approved by Manonmaniam Sundaranar University.

Service Certificate and No Objection Certificate from the head of the institution concerned should be submitted annually till the submission of the PhD thesis.

Candidates from Tamil Nadu and Pondicherry are alone permitted for Part - Time Ph.D. Programme.

## **1.2 Minimum Qualifications**

For admission to the PhD programme under the above-specified categories, a candidate has to fulfill 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 are 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.

### 1.2.1 Minimum qualification for admission of Ph.D. programme

The minimum qualification for admission into Ph.D Programme is as per the UGC norms in vogue. However 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

- 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

- c) **Entrance Test:** Candidates seeking admission for Full – time, Part-time (both Category A and Category B) 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 is valid for one year.
- d) The Entrance Examination will comprise 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 and as per the syllabus approved by department and the same shall be notified in the Website of the University at the time of advertisement.



- e) The Interview will be conducted by forming an interview committee following the entrance examination.
- f) For the candidates of any particular discipline, the interview board shall consists 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.
- g) At the time of interview, the candidates are expected to discuss their research interest/area.
- h) The question papers for the entrance test shall be set by the Head of the Department and a senior faculty member nominated by the Vice-Chancellor. In the case non availability of a discipline within the University Departments, the questions papers will be set by external experts.
- i) UGC NET/UGC/CSIR (JRF) examination / SET/ GATE qualified candidates and Teacher Fellowship holders are also exempted from the Entrance Test and Interview. Candidates with M.E. / M.Tech Degree Qualification should also appear for Entrance Examination.
- j) 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 (BC , MBC/DNC)	55%
SC/ST	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. Normally the University shall issue notification for Ph.D. admission twice in a year.
- b) Application for Ph.D registration will be received throughout the year, but the process of registration shall be done during the months of December and June of every academic year **(two sessions only)**. However for NET and other fellowship candidates, the registration shall be done as a special case after submitting the application.  
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) Incomplete applications in any respect shall be summarily rejected without any intimation to the candidate.
- d) After passing the qualifying examination or if exempted as per the norms of the PhD programme, the candidate has to submit an application for PhD programme through the proposed supervisor.
- e) The filled-in application along with necessary certificates of qualifying examination and registration fees (payable in the name of Registrar of the University) shall be sent to The Director, Centre for Research, Manonmaniam Sundaranar University.
- f) The candidates may choose their Supervisors and Research Centres and mention the relevant details in the application for PhD Registration.

- g) The commencement of Registration shall be the date of first communication mentioning the doctoral committee members. The date of Registration is the date on which the first communication is sent to the Doctoral Committee members; i.e., the date of Ph.D commencement order issued by the Director, Centre for Research, M.S. University.
- h) Research Fees and the same shall be notified by the Research Section.

#### 1.4 Period of Research and Extension

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

Category	Minimum period of the programme	Maximum period of the programme
Full-time	2 years for candidates with M.Phil	6 years
	3 years for other candidates	6 years
Part-time (Category A and B)	3 years for candidates with M.Phil	6 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**

### **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 (Category A and Category B)**

The candidate under this category has to do research work for a minimum period of 8 months at a stretch or in spells during the tenure, under the Supervisor/Co-Supervisor.

The Supervisor will inform the exact duration of this period, in advance, to the University. The Supervisor will provide a certificate that the candidate has fulfilled this criterion, during the submission of the synopsis.

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

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.

**1.6.1 Full-time to Part-time (A or B)** the entire period spent as full-time will be considered for Part-time Conversion.

**1.6.2 Part-time (A or B) to Full-time** 60% of the Part-time period will be considered for conversion.

1.6.3 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 center where the guide works.

## **1.7 Doctoral Committee**

1.7.1 There shall be a Doctoral Committee for every scholar to monitor the progress of research work.

1.7.2 For every scholar, the Supervisor shall furnish a panel of four experts with Doctoral qualification in the field of proposed research of which two experts from the same department of the College / other related department of the same college / University Department (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.

1.7.3 The Supervisor of the scholar shall be the convener of the Doctoral Committee.

1.7.4 The Joint Supervisor, if applicable, shall also be a member.

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

- (i) To approve the research proposal and prescribe the course work within six months 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 and panel of examiners for adjudication of the thesis;
- (iv) To consolidate and approve the adjudication reports for conduct of Ph.D viva-voce examination.

1.7.6 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.

1.7.7 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 Doctoral Committee meetings.

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.

## **1.8 Programme Structure**

1.8.1 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.

1.8.2 The Doctoral Committee of a scholar shall meet within three 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 work of 4 credits each and 1 mini project of 4 credits

Candidates with M.Phil qualification should earn 8 credits as per UGC regulations in the following option

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) On successful completion of (a) or (b), the candidate will be awarded an M.Phil degree
  - (d) The candidate will be allowed to continue Ph.D research based on the recommendation of Doctoral Committee (Meeting -2).
- 1.8.3 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.
- 1.8.4 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.
- 1.8.5 No change in the course works prescribed shall be made without the approval of the Doctoral Committee.
- 1.8.6 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.
- 1.8.7 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.
- 1.8.8 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.
- 1.8.9 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.

- 1.8.10. The scholars shall secure a CGPA of 5 or 50% of the total marks in the course works in order to become eligible. The scholar who fails to secure a CGPA of 5 or 50% 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 CGPA to 5.
- 1.8.11 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 .

### **1.9 Monitoring the progress of the scholar**

- 1.9.1 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.
- 1.9.2 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.
- 1.9.3 After the confirmation of provisional registration, the progress made by the research scholars shall be reviewed by the Doctoral Committee once a year.
- 1.9.4 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, 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.

### **1.10 Re- Registration**

The following norms will be followed for re-registration for PhD programme.

- 1.10.1 If a candidate is not in a position to submit the PhD thesis after the duration of the programme period prescribed (including extensions), he/she has to re-register with the payment of a Special Fee fixed by the Syndicate from time to time.
- 1.10.2 If the thesis of a candidate is rejected by examiners, he / she has to re-register for PhD



programme on a modified/different topic.

1.10.3 Re-registered candidates will be permitted to submit the PhD thesis after one year from the date of re-registration.

1.10.4 The candidate has to pay the prescribed fees for re-registration, in addition to other stipulated fees.

### **1.11 Cancellation of PhD Registration**

Any candidate can request for the cancellation of PhD registration/change of Supervisor through the Supervisor concerned. Also the Supervisor can write to the University for withdrawal of guidance/cancellation of the PhD registration of a candidate working under his/her guidance. It is necessary to get the concurrence of the candidate and the Supervisor for cancelling the PhD registration. 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. 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 controversy of any kind arises between the Supervisor/Co-Supervisor and the PhD scholar, which could not be settled through mutual agreement, that should be referred to the Research Board of the University.

## **2.1 Approval of Research Supervisor**

- (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 and any regular Associate/Assistant Professor of the university/college with a Ph.D. degree with at least two research publications in refereed journals at the time of submitting his / her application, will be recognized as Research Supervisor.
- (d) The applicant who is working in Self Finance Stream / Colleges should have at least one year of service. The candidates registering under the Faculty members working in the

Self Financing Stream / Colleges should have a Co-Guide from recognized Research Centre at the time of registration itself.

- (e) The processing fee for Guideship approval is Rs.2000/- only.

## **2.2 Registration under a Supervisor**

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 irrespective of the co-guidance. Special permission will be granted by the Vice Chancellor for 4 more scholars (2+2 under supervisor / co-supervisor category) based on the merit of the case. However existing research scholars under a recognized supervisor shall be allowed to continue irrespective of the number prescribed now.

Guideship shall be obtained after retirement if working in MSU affiliated Colleges (including Self Finance Colleges) / Research Centers / R & D institutions of MSU jurisdiction until 64 years (based on the research accomplishments) in order to promote research in this region and due to address the shortage of Supervisors. 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.

2.2.3 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) When the Ph.D. candidate is attached to an approved Research Centre through a co-guide working in that department/college.
- d) The number of Ph.D. candidates allowed under such a retired faculty member will be restricted to 4.
- e) 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 will be permitted to guide PhD students up to age of 65 based on the assessment of their research accomplishments. A committee constituted by the Vice-Chancellor shall assess the research accomplishments of such faculty members and recommend for the guidanship.

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

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

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 his/her discipline. All communications to the University regarding PhD research should be sent through the Supervisor.

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

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**

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**

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, MPhil. 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 Thesis**

### **4.1 Title**

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 submission of application for PhD registration. 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**

- 4.2.1 The scholar shall be permitted to submit the Synopsis only after completion of the minimum duration of the programme applicable to the scholar. However, a scholar shall be permitted to submit the Synopsis three months prior to the completion of his/her minimum duration, provided the scholar has published two research papers in referred impact factor journals (from among the journals prescribed by the Board of Studies) 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.

- 4.2.2 The Synopsis shall be accepted only when the scholar has published at least one research paper in a journal (from among the journals prescribed by the Board of Studies) 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.
- 4.2.3 The scholar shall submit one copy of the Synopsis of his/her research work prepared in accordance with the format and specification prescribed, to the Doctoral Committee through the Supervisor and Joint Supervisor, if applicable.
- 4.2.4 If the Doctoral Committee approves the research work reported in the Synopsis and fulfils Clause 1.9.2, it shall forward one copy of the approved Synopsis to the Director (Research) along with a panel of ten examiners who are experts in the field of research of the scholar, five from India (other than Tamil Nadu and Pudhucherry) and five within Tamil Nadu and Pudhucherry except Manonmaniam Sundaranar University jurisdiction, and their acceptance letter. In the case of Tamil discipline alone, Pudhucherry is considered as external. No two experts shall be from the same Institution.

### **4.3 Submission of Thesis**

- 4.3.1 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.
- 4.3.2 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 after the acceptance of Synopsis and within three months from the date of approval of the Synopsis by the Doctoral Committee along with one hard copy of the abstract of the Thesis (in about 400 words). Under extraordinary circumstances, submission of Thesis shall be permitted up to a maximum period of six months, with prior approval from the Director (Research). In such cases, the late fee shall be paid as applicable.
- 4.3.3 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)

- 4.3.4 Soft copy of the thesis and one page abstract of the thesis in PDF format shall be submitted in CD to the University.
- 4.3.5 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.

#### **4.4 The act of plagiarism**

- a) I). 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)
- II) 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.
- b) For the abetment of above such action, the recognition of his/her Supervisorship 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.
- c) 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.

#### **4.5 Evaluation**

##### **4.5.1 Appointment of Examiners**

- a. If the Doctoral Committee approves the research work reported in the Synopsis and fulfils Clause 1.9.2, it shall forward one copy of the approved Synopsis to the Director (Research) along with a panel of ten examiners who are experts in

the field of research of the scholar, five from India (other than Tamil Nadu) and five within Tamil Nadu and Pudhucherry except Manonmaniam Sundaranar University jurisdiction, along with their publications details during the last five years. 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.

- b. 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.

#### **4.6 Evaluation Rules**

- 4.6.1 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.
- 4.6.2 If any examiner recommends revision of the thesis, the candidate should submit the revised thesis within a period of one year. 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.
- 4.6.3 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/-.

## **4.7 Viva-Voce Examination**

- 4.7.1 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 (except Saturday, Sunday and government holidays), 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, Supervisor (Convener) and the co-Supervisor (if any). It is duty of the Convener to consolidate the results of the Viva-Voce Examination.
- 4.7.2 The conduct of PhD viva-voce examination should be notified by the Supervisor at least fifteen days before the date of the viva-voce examination.
- 4.7.3 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.
- 4.7.5 Rescheduling fees for postponement of PhD Viva- Voce Examination is fixed as Rs.1000 every time.

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

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**

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 fulfill 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 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 fulfills the following conditions:

- 6.1 Submission of detailed proposal with fee of Rs. 20,000/-.
- 6.2 At least one PG course should be offered in the department.
- 6.3 Two approved PhD Supervisors should be there to supervise PhD candidates in the department.
- 6.4 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.
- 6.5 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.
- 6.6 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.
- 6.7 The inspection committee is to ensure the adherence of norms stipulated for research centers viz., infrastructure and institutional facilities available. A sum of Rs.20,000 shall be collected from the approved Research Centers as Renewal fee.
- 6.8 The Departments/Centers in the colleges affiliated to Manonmaniam Sundaranar University shall only be recognized as Research Centers and not any other research center/institution which is not affiliated to Manonmaniam Sundaranar University.

## 7 **General**

- 7.1 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 of State Bank of India’s POWER JYOTI ACCOUNT or MSU A/C Indian Bank Challan NO. 32723606944**. The Demand Draft or challan (SBI/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.
- 7.2 All communications by the scholar to the University should be sent only through the Supervisor (and Co-supervisor, wherever applicable).
- 7.3 All applications, either for PhD registration or for PhD Supervisorship shall be addressed to the “Director, Centre for Research, Manonmaniam Sundaranar University”.
- 7.4 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.
- 7.5 The Director, Centre for Research is authorized to approve and communicate the matters pertaining to :
- a) Change of Research Centre
  - 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.

- 7.6 Following successful completion of the Evaluation process and the announcement of the award of PhD, the Director, Centre for Research shall forward a soft copy of the Thesis to the UGC.
- 7.7 Any act of plagiarism, if found will be viewed seriously by the University and the penal action will include cancellation of Supervisorship of the concerned Supervisor and cancellation of the degree awarded to the candidate.
- 7.8 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 (A / B) CATEGORY

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

Each payment should be made through “Demand Draft” drawn in favor of “The Registrar, Manonmaniam Sundaranar University” payable at “Tirunelveli” or through Challan of State Bank of India’s POWER JYOTI ACCOUNT or MSU A/C Indian Bank Challan NO. 32723606944.

S.No	Item	Within India In Rs
1	Qualifying Examination for Ph.D. Programme	1000
2	Registration Fee	1,500
3	Full Time  Research Fee per year for Arts Research Fee per year For Science	(University Fee + Library)+ Research Center fee (8,000+1,000)+(2,400) (11,000 +1,000)+ (3,300)
4	Part-Time  Research Fee per year for Arts Research Fee per year For Science  If the scholar select University department as the Research Center, then the Research Center fee should be paid along with the Research Fee.	(University Fee + Library)+ Research Center fee (10,000+1,000)+(3,000) (13,000 +1,000)+ (3,900)
5	Research Fee for Physically Challenged Candidates up to the minimum period and Viva-Voce Fee	-Nil-
6	Fine for default payment of research fee (for each default payment)	500
7	Extension Fee	As prescribed by Research Board at the time of recommending extension
8	Postage	2,000 or the actual whichever is the higher
9	Part-I (course work) Examination fee	1000 per paper
10	Change of address and other	100

	official Communications required by Candidates	
11	Guideship Application Processing Fee	2000
12	Change Of Supervisor/Research Center	1000
13	Conversion from Full Time to Part time(Vice-versa)	1000
14	Pre PhD Presentation	1,000
15	Cancellation of PhD Registration	Nil
16	Issuing of duplicate Certificates	500
17	Fees for Doctoral Committee Meeting	5000 for each meeting
18	Fee for Viva – Voce Examination For Full Time, Part Time Internal / External candidates.	10,000
19	UGC Compliance Certificate(ordinary) Takkal Scheme	2000 5000
20	Thesis Submission Fee	10,000

#### **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:**

- (i) Exemption of Research fees to the Physically Challenged candidates for the minimum period stipulated for Ph.D. Programme.
- (ii) 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.htm](http://www.asx.com.au/professionals/market_information/index.htm). [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,



**A THESIS**

*Submitted by*

**<NAME INITIAL>**

**<REG.NO>**

**<DISCIPLINE>**

*in partial fulfillment of the requirements for the degree of*

**DOCTOR OF PHILOSOPHY**



**MANONMANIAM SUNDARANAR UNIVERSITY  
TIRUNELVELI – 627 012**

**<MONTH & YEAR OF SUBMISSION >**

## **ANNEXURE – III**

### **GUIDELINES FOR THE PREPARATION OF SYNOPSIS 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**

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.

#### **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 and Title page (as shown in Annexure II)
2. Certificate (as shown in Annexure III)
3. Abstract

4. Acknowledgement
5. Table of Contents (as shown in Annexure IV)
6. List of Tables
7. List of Figures
8. List of Symbols and Abbreviations (as shown in Annexure V)
9. Chapters
10. Appendices
11. References
12. List of Publications

The Tables and Figures should be included subsequently after referring them in the text of the Thesis. **The thesis from Chapters should be printed on both sides.**

#### 4. **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.

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 12 listed in section 3 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.

- 5.1 **Cover Page & Title Page** - A specimen copy of the Cover page and Title page for the Thesis is given at the end of this specification.
- 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 shown in Annexure III. 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.
- 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. A specimen copy of the Table Contents for the Thesis is given in Annexure IV.
- 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) Introductory 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** - 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 and can be separately mentioned as in 5.10. 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.

## 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, pp. 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.htm](http://www.asx.com.au/professionals/market_information/index.htm). [5 July 2009].

### 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.

### 10. Newspaper Print

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

5.11 **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).

5.12 **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 and outer side gloss laminated, 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.
- The Fourth copy of the Thesis should be reduced to A5 size with printing in black letters on both sides with hard bound binding in white colour and submitted after the Viva-Voce examination duly certified by the Supervisor and Joint Supervisor, if applicable, with his/her signature that all the corrections / modifications suggested by the examiners have been incorporated in the Thesis.
- The fourth copy of the Thesis in A5 size should contain the Certificate (as applicable) given in Annexure VI and a photo copy of the minutes of the Oral Examination Board. These two items should be placed in between the Title page and Certificate.