

# **Prospectus 2011**

Postgraduate Course

conducted by

The Board of Study in Medical Administration

for

**MSc/MD (Medical Administration)**

**and**

**Board Certification in Medical Administration**

**POSTGRADUATE INSTITUTE OF MEDICINE  
UNIVERSITY OF COLOMBO**

# Table of Contents

Page No.

## **MSc.(Medical Administration) Course**

General & Specific Objectives .....	01
Regulations and Guidelines	
1. Eligibility for selection .....	03
2. Selection examination for MSc. ....	03
3. Training Programme for MSc.	
3(a) Course Work .....	04
3(b) Dissertation .....	21
4. Evaluation .....	21
5. MSc.Examination(Final Assessment) .....	22
6. Allocation of Marks .....	23
7. Requirement to pass the MSc.Examination .....	23
8. Award of the Degree of MSc. ....	24
9. Faculty Resourse .....	24
Annex I - Dissertation - Guidelines for Candidates ...	25

## **MD (Medical Administration) Part I Training Programme.**

1.Training Programme .....	30
2.Eligibility for selection .....	32
3.Training Programme .....	32
4.MD part I Examination .....	33
5.Requirement to pass the MD part I Examination .....	34

## **MD (Medical Administration) Part II training programme**

1. Eligibility .....	35
2. Training Programme .....	35
3. Eligibility to sit the MD part II Examination .....	37
4. Final Assessment MD part II Examination .....	37
5. Requirements to pass the MD part II Examination .....	39
6. Award of the Degree in MD(Medical Administration) .....	40
7. Post MD training as a senior registrar .....	40
8. Pre-Board Certification Assessment(PBCA) .....	41
9. Eligibility for Board certification as specialist in Medical Administration .....	41

Annex II - Guidelines for the research projects .....	42
---	----

Annex III - The Procedure for supervision .....	45
---	----

II

## **M.Sc (MEDICAL ADMINISTRATION) COURSE**

The Board of Study in Medical Administration (hereafter referred to as the Board) will conduct a training programme in Medical Administration leading to the degree M.Sc (Medical Administration).

The objectives of the training programme will be as follows.

### **General Objective**

The graduate of this programme will have competencies in managerial, advisory, supervisory, planning, research and communication responsibilities, so as to become efficient and effective administrators, within the health system in Sri Lanka. It is expected that they will be executing the above roles in order to make the health system meet the demands of the country.

### **Specific Objectives**

At the successful completion of this course the graduates will be able to:

- Identify problems within the system and develop plans both on the long term and immediate basis, to remedy such problems by utilizing and mobilizing available resources within the broader framework of the Sri Lankan health policy.
- Undertake monitoring and evaluation of policies, programmes and implementing strategies, from time to time, by utilizing health systems and epidemiological

methodologies to provide feedback to different levels ranging from the community to policy makers.

- Establish efficient and effective channels of communication among different levels of health staff and various sectors so that the individual and group responsibilities are clearly known.
- Promote inter-sectoral and intra-sectoral coordination to ensure the provision of quality health care.
- Develop skills in supervising health teams to assure quality of work through a process of inquiry and corrective action.
- Keep abreast of recent advances in medicine through a process of continuing self-learning.
- Carry out the assigned and expected duties within an acceptable moral context, while upholding clearly defined social values.



## REGULATIONS AND GUIDELINES

### 1. ELIGIBILITY FOR SELECTION

Candidates who are medical graduates shall;

- a) Be registered in the Sri Lanka Medical Council
- b) Have Three (03) years post-internship experience in posts acceptable to the Board of Study

Candidates who are dental graduates shall;

- c) Be registered in the Sri Lanka Medical Council
- d) Have five (05) years experience in posts acceptable to the board of study

### 2. SELECTION EXAMINATION FOR MSc (MEDICAL ADMINISTRATION)

The qualifying examination consists of a theory paper with two sections, A & B.

The Section A shall have **3 SAQ** questions on Basic Sciences in Medical Administration and Management

Section B shall have **2 SAQ** questions on application of Management Sciences in Health.

The duration of the paper shall be **three hours**. Each question will be marked out of 20 by two examiners independently and average mark will be taken.

**The pass mark shall be 50%.** The number of trainees to be enrolled to the training programme each year will be decided by the BOS and indicated in the advertisement calling for applications. The selection will be based on merit.

### **3. TRAINING PROGRAMME FOR MSc (MEDICAL ADMINISTRATION)**

The duration of the training program will be one year (12 months) and will consist of 2 components

- a) Course work
- b) Dissertation

#### **3(a) Course work**

The course work will include the following units and sub-units. A minimum of 80% attendance at all learning activities in each module in the course is required to qualify to sit the examination.

## **Unit 1 - Introduction**

- Sub Units
- 1.1 Health and development
  - 1.2 Health and health related national policies

## **Unit 2 - Introduction to Basic Sciences**

- Sub Units
- 2.1 Statistics
  - 2.2 Epidemiology
  - 2.3 Demography
  - 2.4 Health Economics
  - 2.5 Research Methodology
  - 2.6 Computer Applications
  - 2.7 Behavioral Sciences

## **Unit 3 - Planning and Development**

- Sub Units
- 3.1 Management information systems
  - 3.2 Planning, monitoring and evaluation

## **Unit 4 - Management Sciences**

- |           |     |  |
|-----------|-----|--|
| Sub Units | 4.1 | Theory and practice of management.         |
|           | 4.2 | Organizational behavior                    |
|           | 4.3 | Human resources development and management |
|           | 4.4 | Financial Management                       |
|           | 4.5 | Management of physical resources           |
|           | 4.6 | Communication and public relations         |
|           | 4.7 | Office management                          |
|           | 4.8 | Public administration                      |

## **Unit 5 - Management of Community Health Services**

- |           |     |   |
|-----------|-----|---|
| Sub Units | 5.1 | Management of public health services          |
|           | 5.2 | Health education                              |
|           | 5.3 | International health and the related agencies |
|           | 5.4 | Community participation in health care        |

## **Unit 6 - Management of Patient Care Services**

- |           |     |   |
|-----------|-----|---|
| Sub Units | 6.1 | Management of Hospitals.                        |
|           | 6.2 | Disaster management                             |
|           | 6.3 | Update in clinical medicine & health technology |



Sub Unit	Objective	Learning Context (Method)
1.1 Health & Development	1. Describe Issues and Perspective of Human Development	<ul style="list-style-type: none"> <li>• Lecture / Discussions</li> <li>• Small group assignments to interview Secretaries of development sectors</li> <li>• Visit to development project areas. Interviews with develop. Officers Worker Community members. Group work and presentation of reports.</li> <li>• Interviews with Health Professionals and Practitioners from different health and health related disciplines</li> </ul>
	2. Identify and describe the inter relationships between the different sectors in development	
	3. Describe the relationships between health & Human Development	
	4. Describe an Appropriate Framework for Health in the context of National Development	
2.1 Statistics	1. Describe the role of statistics in health Administration	<ul style="list-style-type: none"> <li>• Group Discussions</li> <li>• Field exercises</li> <li>• Class exercises</li> <li>• Computerized record linkage</li> <li>• Lecture</li> <li>• Lecture Class Exercise</li> <li>• Practical exercise</li> </ul>
	2. Describe the nature and type of data needed to support the managerial process for health development. How data are collected and the various scales of measurement	

	<p>3. Describe the various ways of reducing and presenting and the purpose of doing so</p>	
	<p>4. Define and calculate the indices of central tendency and location, their uses, interpretations and limitations.</p>	
	<p>5. Define and calculate various measures of variability, their uses, interpretations and limitations.</p>	
	<p>6. Describe concepts of probability sufficient to serve as background for the use of binomial and normal probability distributions and their uses.</p>	
	<p>7. Describe the concepts of sampling error and how sampling error needs to be taken into account when ever inductive inferences are made from sample data</p>	
	<p>8. Describe the sampling method that could be used in different situation</p>	

	<p>9. Describe the meaning and application of tests of significance and their role in statistical inference.</p>	
	<p>10. Undertake some of the tests of significance, sufficient to carry out the tests when required with the help of reference materials.</p>	
	<p>11. Describe the theory and methodology of the chi-squared test sufficient to carry out the test when required with the help of reference materials.</p>	
	<p>12. Describe the nature of statistical evidence for relationship between different characteristics or event in a population and interpret the statistical methods and indices employed to describe and measures such relationships</p>	
	<p>13. Describe the test of significance that may be used for two or more groups of ordinal data (non parametric)</p>	

	14. Chose an appropriate significance test for different types of data and to evaluate other choices of statistical procedures	
2.2 Epidemiology	1. Describe the concepts and scope of epidemiology	<ul style="list-style-type: none"> <li>• Lecture Discussions</li> <li>• Exercises</li> <li>• Field Visits</li> <li>• Demonstrations</li> </ul>
	2. Describe and compute measures of disease frequency	
	3. Describe measures of effect	
	4. Organize epidemiological data in a meaningful manner.	
	5. Monitor the health of the communities, and take action to protect public health	
	6. Plan and conduct an epidemiological study, draw appropriate conclusions from results of the study and discuss the quality of data and discuss causality	
	7. Identify and investigate an outbreak	
	8. Describe a screening programme	

	9. Describe Laboratory Surveillance methods	
2.3 Demography	1. Calculate basic demographic measures	Lecture / Discussions
	2. Estimate population and make projections	
	3. Describe the population, health and development interactions	
2.4 Health Economics	1. Describe core concepts as related to health sector with special emphasis on :- (a) the role of markets in health care (b) the role of the state in health care	<ul style="list-style-type: none"> <li>• Lecture to introduce concepts</li> <li>• Discussion based on empirical evidence</li> <li>• Case studies</li> <li>• Study of the Literature</li> </ul>
	2. Describe health financing; issues of funding and pricing, sources, alternatives, impacts.	
	3. Describe the issues involved in planning the health care system taking resource constraints and equity issues explicitly into account.	
	4. Describe economic evaluation methods applicable to health care systems.	

	5. Describe the link between Growth Development and Health	
	6. Describe potentials for economic research on health sector issues.	
2.5 Health System Research Methodology	1. Describe the purpose, scope, content and characteristics of HSR	<ul style="list-style-type: none"> <li>• Lecture / Discussions</li> <li>• Individual exercise</li> </ul>
	2. Draft a HSR project proposal	
2.6 Computer application	1. Describe the potential uses of computers in Health Administration	<ul style="list-style-type: none"> <li>• Lecture / Discussions</li> <li>• Case studies</li> <li>• Hands on experience on computers</li> </ul>
	2. Apply basic P.C. software in health administration	
2.7 Behavioral Sciences	After completing the tasks of this module the learners should be able to critically discuss and apply concepts relating the behaviors of patients, community, physicians, administrators and other health professionals to planning and implementing curative, preventive promotive and rehabilitative health programmes and establishing Health Policy.	<ul style="list-style-type: none"> <li>• Lecture / Discussions</li> <li>• Presentations</li> </ul>

3.1 Management Information System	1. Describe the role of information in health management	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Group work</li> </ul>
	2. Describe the main elements /steps in designing a Management Information System	
	3. Describe relevant methods of data collection and the problems therein.	
	5. Present analyzed data	
	6. Interpret analyzed data	
	7. Design methods of information feedback	
	8. Describe the practical experiences with specific M.I.S	
3.2 Planning, Monitoring & Evaluation of Health Services	<b>A. PLANNING</b>	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Group work</li> <li>• Case studies</li> </ul>
	1. Describe the concepts, principals and models of planning	
	2. Assess the current health situation and the future health scenario	
	3. Identify health, health related and health system prolems	
	4. Prioritize the problems	

	5. Set feasible objectives and targets	
	6. Defend selection of strategies	
	7. Undertake constraint analysis	
	8. Prepare feasible estimates of resources required to achieve the set objectives of a programme / project	
	9. Draft a project proposal	
	<b>B. MONITORING</b>	
	1. Describe the concepts of monitoring & control and the role of monitoring in health management	
4.1 Theory and Practice of Management	1. Describe the basic concepts, principals and process of management	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Group discussion</li> <li>• Case studies</li> <li>• Seminars</li> <li>• Panel discussion</li> </ul>
	2. Describe the principals and process of organizing work	
	3. Describe the processes, procedures, methods and techniques of problem solving and decision – making	



	4. Describe the process, procedures, methods and techniques of problem analysis	
4.2 Organizational Behavior	1. Describe the process and procedures of I) developing leadership II) motivating staff III) Team building IV) Conflict resolution and V) Managing executive stress	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Case studies</li> <li>• Role plays</li> </ul>
4.3 Human Resources Development and Management	1. Describe the process and procedures in planing for health manpower	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Group discussion</li> <li>• Case &amp; role play Presentation</li> </ul>
	2. Estimate requirements of selected categories of health manpower	
	3. Design in-service training activities	
	4. Describe the process and procedures of supervision	
	5. Describe the application of performance appraisal in the management of human resources	

4.4 Financial Management	Describe the process, methods and procedures of budgeting control of and expenditure of finances	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Case studies</li> <li>• Exercises</li> </ul>
4.5 Management of Physical Resources	1. Describe the process and procedures of managing drugs and such other supplies	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Case studies</li> <li>• Role plays</li> </ul>
	2. Describe the process and procedures of managing equipment	
	3. Describe the process and procedures of managing vehicles	
4.6 Communication & Public Relations	1. Describe the important process methods and the techniques for effective communication within the Organization	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Case studies</li> <li>• Role plays</li> </ul>
	2. Describe the process and procedures of effective Public Relations	
4.7 Office Management	1. Describe the process, methods, techniques and procedures of managing an office so as to facilitate achievement of its objectives	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Exercises</li> </ul>

4.8 Public Administration	Describe the constitutional framework, policies and trends and institutional agreements, regulations and the processes governing public administration	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Discussions</li> <li>• Case studies</li> <li>• Exercises</li> </ul>
5.1 Financial Management	1. Describe the development of the public health services (PHS) in Sri Lanka	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Student Presentations</li> </ul>
	2. Describe the managerial strategies, processes and procedures applied in implantation of public health services in the Ministry of Health	
	3. Describe the organization, range, quality and quantity of PH services delivered by organizations other than Ministry of Health in Sri Lanka	
	4. Describe the common social and health problems in childhood and the methods of prevention	
	5. Describe the nutritional problems in Sri Lanka and their causes	
	6. Describe the health problems in special population groups	

	7. Identify the environmental factors that influence health and indicate services available for improving health through environmental control	
	8. Evaluate selected Public Health Programs	
5.2 Health Education	1. Define and discuss the process of health education including the basic principles	Lecture discussion
	2. Describe the basic principles underlying the learning process	
	3. Discuss human motivation	
	4. Describe the communication process.	
	5. Discuss the use of visual aids in health education	
	6. Describe the change process	
	7. Describe as to how to plan implement and evaluate health education programme	
5.3 International Health and Related Agencies	1. Describe the health issues related to international travel	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Visit to port health office</li> </ul>

	2. Describe the International Health regulations	
	3. Describe the health hazards of international trade	
	4. Describe the trans boundary and international Health problems	
	5. Describe the role of international agencies in health services	
5.4 Community Participation in Healthcare	1. Describe the potential within the community for development activities (Agriculture, Religious, Social etc.) in general and health activities in particular	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Case studies</li> <li>• Exercises</li> </ul>
	2. Describe community participation in health related programs and activities	
6.1 Management of Hospitals	1. Describe the history of development of modern hospitals.	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Self studies</li> <li>• Individual Exercises</li> </ul>
	2. Monitor the effectiveness of a hospital.	
	3. Describe processes and considerations in planning of hospital services.	
	4. Evaluate selected hospital services.	

	5. Work unit cost of hospital services.	
	6. Describe the process of establishing a Quality Assurance Programme (QAP) in a hospital	
	7. Describe the processes and procedures of Medico Legal work in hospital	
	8. Describe the processes and procedures of medical ethics.	
	9. Describe the processes and procedures of making a hospital as a genuine community institution	
	10. Demonstrate skills in solving problems	
6.2 Disaster Management	1. Prepare an Action Plan to deal with different types of disasters	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Presentation</li> <li>• Group work / plenary</li> </ul>
6.3 Public Administration	1. Describe the current clinical and technological developments and identify the managerial implications of the new developments for the health system in Sri Lanka	<ul style="list-style-type: none"> <li>• Lectures</li> </ul>

## **Training methods**

The learning activities during course work will include;

- (a) Lecture/discussions, tutorials and practicals
- (b) Individual and group assignments
- (c) Field exercises in actual work situations (health care institutions and the community)

## **3(b) Dissertation**

Candidates shall prepare and submit a dissertation (See annex 1) on a topic and proposal approved by the Board of Study. The completed dissertation should be submitted at least one month before the Final Assessment/MSc Examination.

## **4. EVALUATION (Formative/continuous assessments)**

There are 21 course sub-units in the course. At the completion of each unit an evaluation will be done by a true/false MCQ Paper. There shall be 10 questions in each paper to be answered in 30 minutes. Minus marks will be awarded for each question but will not be carried forward (minimum 0 and maximum 5 for each question) Each MCQ paper shall be marked out of 50. The total marks for all MCQ Papers shall be converted to a mark out of 200.

## **5. MSc EXAMINATION (final assessment)**

There shall be three Parts in the examination:

Part I - Written examination

Part II - Dissertation

Part III - Oral examination

### **Part I - written examination**

This will consist of 2 sections: A and B.

Section A: Basic Sciences in Medical Administration and Management.

Paper 1- 5 Essay Questions – 3 hours duration

Paper 2- 15 SAQ – 2 hours duration

Section B: Application of Management Sciences in Health

Paper 1 - 5 Essay Questions – 3 hours duration

Paper 2 - 15 SAQ – 2 hours duration

### **Part II – Dissertation**

Please see annex I for the format and marking scheme.

The dissertation will be marked by two examiners independently.

### **Part III – Oral Examination**

This will be based on the dissertation and related health management issues.

There shall be two examiners and the duration shall be 30 minutes



## 6. ALLOCATION OF MARKS

Formative Assessment (MCQ Papers)	200
Final Assessment	<u>800</u>
Written Examination	400
Dissertation	250
Oral Examination	<u>150</u>
	800
	Total- 1000

***\*\*Allocation of marks for the repeat examination:  
(in-course MCQ Marks will not be included)***

Written Examination	600
Written Dissertation	250
Oral Examination	<u>150</u>
	1000

## 7. REQUIREMENT TO PASS THE MSc. EXAMINATION

An overall average score of fifty percent (500 marks from 1000 marks)

AND

a minimum score of 40 percent in each Section A and B of the written examination

AND

a minimum of 50% for the dissertation

AND

A minimum of 40% for the oral examination

AND

a minimum of 40% for the continuous assessment  
*(shall not be a requirement for the repeat examination)*

## **8. AWARD OF THE DEGREE OF MSc (MEDICAL ADMINISTRATION)**

A candidate who shall qualify the Final Examination (as given above) will be awarded the degree of MSc (Medical Administration).

## **9. FACULTY RESOURCE-**

Course unit advisors, lecturers and other resource personnel will be appointed by the Board of Study. The examiners will be appointed by the Senate of the University of Colombo on the recommendation of the Board of Study and approved by the Board of Management.

- 10.** Any section of this prospectus may be changed from time to time at the discretion of the Board of Study with the approval of the Board of Management.
  
- 11.** With regard to the interpretation of the clauses in the prospectus the decision of the Board of Management will be final.

## **Annex 1**

### **DISSERTATION**

#### **Guidelines for the candidates. MSc (MEDICAL ADMINISTRATION)**

1. The title of the dissertation, along with the statement of objectives and the usefulness and the relevance to Sri Lanka should be submitted to the Board of Study for approval within 10 weeks of commencement of the course. The dissertation should be on a research study or a management related project. It would be necessary that the dissertation contains data gathered scientifically from the candidates own investigations and not limited to data from available literature.
2. On approval of the title, the Board of Study will appoint a supervisor. The supervisor shall be consulted and guidance obtained at all stages of the research project and during the preparation of the dissertation.
3. The candidate shall submit the dissertation to the Director, PGIM within one month of completing the written examination.
4. It is recommended that the dissertation must be between 8000 to 12000 words.

It should be type-written using double spacing on good quality A4 size paper on one side only. A margin of not less than 44 mm should be allowed on the left and not less than 25mm on the top, right hand side and the bottom. Chapter headings should be capitalized and centered, whilst subdivision headings should be typed from the left hand margin in lower-case type and underlined. Tables and figures should be placed as near as possible to the part of the text to which they refer. The contents of the dissertation

should be given under the following headings. The marks are indicated in brackets.

1. Title (05)
  2. Author's name and address
  3. Summary or synopsis (10)
  4. Table of contents
  5. List of tables
  6. List of figures
  7. Introduction (20)
  8. Objectives (15)
  9. Review of literature (20)
  10. Materials and methods (50)
  11. Results (40)
  12. Discussion (including limitations) (45)
  13. Conclusion and recommendations(if any) (10)
  14. Acknowledgements
  15. References (15) (Harvard system should be used)
  14. The overall presentation (20 marks)
5. Three copies of the dissertation should be submitted loose bound in the first instance, to enable corrections, if any, to be made. When the dissertation is accepted, it should be bound in hard cover with author's name, the degree and year printed in gold on the cover and on the spine (top to downwards). The cover should be in black. The front cover should carry the title on top of the author's name in the center and the year at the bottom all printed in gold. Three copies of the dissertation should be submitted to the Director, PGIM. Two copies shall be the property of the PGIM while the third copy will be returned to the candidate.

## **Assessment procedure and criteria:**

6. If the candidate fails the MSc examination, the same dissertation may be submitted at a subsequent examination if the mark obtained for the dissertation is 50% or more and that mark will be carried forward to the next examination. However the candidate may make appropriate revisions and resubmit it at the subsequent examination for fresh marking. Candidates scoring less than 50% marks for the dissertation shall submit at the subsequent examination a fresh or modified dissertation as prescribed by the examiners.

### **1. Procedure:**

- a. The examiners will submit dissertation marks to the Director/PGIM two weeks prior to the date of the Results Board.
- b. A Pre results Board 1 comprise of the Chief Examiner, one member or more members representing Medical Administration Examination Board appointed for the MSc Examination, as recommended by the Board of Study.
- c. The Director, PGIM will convene a meeting of the members of the Pre results Board 1 to peruse the marks allocated for each dissertation by the two examiners, schedule a date to hold the Pre Results Board 2 and recommend the dissertation examiners to be invited for Pre Results Boards 2.
- d. At the Pre Result Board 2 marks awarded by the third examiner will be considered and for it the examiners participated in the Pre Result Board 1 and the third examiner/s will be invited.

### **2. Pass / Fail Status:**

- a. A candidate will pass the dissertation when both examiners have assigned 50% or more. The final mark will be the average of the marks assigned by the two examiners.
- b. A candidate will fail the dissertation when both examiners have assigned less than 50% of marks. The final mark will be the average of the marks assigned by the two examiners.

- c. When a candidate has been failed by both examiners as given in 2.b above, the PGIM should scrutinize the examiner comments to ensure that the comments are given in detail and the errors/ deficiencies specified and forward same to the candidate. If the examiner comments are not sent or inadequate PGIM should request examiners to submit detailed comments.
- d. Where a candidate has been assigned to the category of pass by one examiner (50% or more) and, fail (less than 50%) by the second examiner, a third examiner will be appointed to assess and award a mark for each such dissertation. The office copy of the dissertation will be sent by the PGIM for re assessment immediately and the third examiner will be invited to attend the Pre Results Board 2 with the assessment marks.

**3. Method to decide the pass/fail status and the final mark of the candidate as described in 2.d above**

The final mark to decide on pass/ fail status of the candidate under 2d will be based on the marks assigned by the three examiners. If two of the three examiners have assigned  $\geq 50\%$  of marks then the candidate passes the examination and if two of the three examiners have assigned less than 50% of marks, then the candidate fails the examination and the final mark assigned to the dissertation will be the average of marks assigned by the two examiners who show concurrence as described above.

- 4. Resubmission of dissertations of candidates who have failed to obtain a pass mark of 50% or more from the dissertation, where the overall aggregate for the examination is 50% or more, with minimum required marks for theory, clinical and oral components. and:**
- A. A candidate who has obtained **between 45% and 49% for the dissertation** will resubmit the dissertation within three

months after carrying out corrections as recommended by the examiners, and in accordance with the guidelines on dissertation of the Board of Study and the guidance of the supervisor. The resubmitted dissertation will be assessed by the first two examiners applying the same rules and regulations applicable for the main examination as mentioned above. If the candidate does not obtain pass marks at this attempt he/she has to resubmit the dissertation at a subsequent main examination after fulfilling the criteria stipulated in this section.

- B. A candidate who has obtained **less than 45% but 30% or more for the dissertation** will be exempt from sitting theory, clinical and oral components of the examination at the subsequent attempt subject to the following condition in respect of the dissertation marks:
- a. The dissertation mark between 40-44%: use the same data and rewrite the dissertation carrying out corrections as recommended by the examiners, in accordance with the guidelines on dissertation of the Board of Study and guidance of the supervisor.
  - b. The dissertation marks between 30-39%: collect new data under the same topic and rewrite the dissertation carrying out corrections as recommended by the examiners, and in accordance with the guidelines on dissertation of the Board of Study and guidance of the supervisor.
- C. Resubmitted dissertations as stipulated in 4B a and b above will be assessed only at a subsequent main examination
- D. A candidate who has obtained **less than 30% for the dissertation** will sit the theory, clinical and oral components of the examination and submit a new dissertation under a different topic at a subsequent main examination.