# Appendix-I(A)

Department of Physical Education  
Faculty of Social Sciences  
Aligarh Muslim University, Aligarh

Syllabus for Ph.D. (Physical Education) Admission Test 2017-2018

<table>
<thead>
<tr>
<th>Research Methodology</th>
<th>40 Marks</th>
<th>All objective type multiple choice questions will be of 1 mark each. (There shall be no negative marking)</th>
</tr>
</thead>
</table>

## Research Methodology

### Unit - I

Research in Physical Education, its need and importance. Scientific principles of research inquiry. Steps in research process. Relevance of literature review. Hypothesis Testing (Directional Non-directional). Rationality of Experimental and Non-experimental research designs, Mixed designs, Factorial design, Co relational research design. Steps in writing of research reports.

### Unit - II


### Unit - III

Unit - IV


Books Recommended:
2. Bose N.M., Research Methodology (Sher Niwas Publication, Jaipur (India) 2005).
7. Fern F. Adward, Advanced focus group research (Saye Publication, New Delhi, 2001).
8. Silverman David, Doing qualitative research (Saye Publications, New Delhi, 2000).
Appendix-I(B)

Department of Physical Education
Faculty of Social Sciences
Aligarh Muslim University, Aligarh

Syllabus for Ph.D (Physical Education) Admission Test 2017-18

<table>
<thead>
<tr>
<th>Subject Specific</th>
<th>10 Marks</th>
<th>All objective type multiple choice questions will be of 1 mark each. (There shall be no negative marking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive</td>
<td>30 Marks</td>
<td>03 Descriptive questions of 10 marks each based on area of specialization</td>
</tr>
</tbody>
</table>

Specialization – Physical Education

Exercise Physiology
1. Physiology and physical training.
2. Exercise Physiology.
3. Physiological changes.
4. De-training, retraining and maintenance.
5. Types and structure of muscle fibres and theory.
7. Physiology and altitude training
8. Physiology of female in sports.
9. Physiological changes in aging.
10. Ergogenic aids.
12. Training and Recovery.

Sports Psychology
1. Psychological Principles and Sports.
5. Motivation.
6. Personality traits of elite athletes.
8. Prestart states
11. Audience and Sports.
Sports Biomechanics
3. Levers
4. Force
5. Friction
6. Air and water Resistance.
9. Analysis of Motion.
11. Projectile- same and different surfaces.

Sports Management
2. Functions and Philosophy.
3. Administration and Principle of Management.
5. Organization.
6. Type of Organization.
8. Personal Management
9. Construction and management of play fields.
11. Public relations.
12. Budget Making and Finance

Sports Training
2. Training load
3. Motor components
4. Technique and Tactics training.
5. Periodisation.
6. Planning.

Kinanthropometry
1. Kinanthropometry.
2. Anthropometric Instruments.
3. Kinanthropometric techniques.
4. Assessment of body composition.
5. Age
7. Application of Growth and Development in the field of sports.
9. Growth pattern, variables and body types.