

# **VIDYASAGAR UNIVERSITY**



## **PHYSICAL EDUCATION**

**(General)**

### **Under Graduate Syllabus**

**(3 Tier Examination Pattern)**

**w.e.f. 2014-2015**

**REVISED**

**Vidyasagar University**

**Midnapore 721 102**

**West Bengal**

## **PHYSICAL EDUCATION (GENERAL)**

### **PART - I**

**(One year course)**

	<b>Marks</b>
<b>Paper -I (Theoretical)</b>	<b>100</b>
<b>Unit - 01 (50 Marks, 50 Lectures):</b>	
i) Group - A: Principles and History of Physical Education	30
ii) Group - B: Psycho-social Aspects of Physical Education and Sports	20
<b>Unit - 02 (50 Marks, Lectures):</b>	
iii) Group - C: Anatomy & Physiology	30
iv) Group - D: Dietetics and Hygiene	20

### **PART -II** **(One year course)**

	<b>Marks</b>
<b>Paper - II (Theoretical)</b>	<b>100</b>
<b>Unit - 03 (50 Marks, 50 Lectures):</b>	
i) Management of Physical Education and Sports	30

ii) Sports Training and Mechanics	20
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**Unit - 04 (50 Marks, 50 Lectures):**

iii) Group - C: Health Education and First Aid	30
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iv) Group - D: Exercise Physiology	20
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**Paper -III (Practical)**

**Marks  
100**

i) Track and Field	21
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ii) Gymnastics	15
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iii) Indian Games	16
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iv) Major Games	20
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v) Yogic Practice	10
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vi) First Aid Practical and Management of Sports Injuries	8
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vii) Practical Exercise Book and <i>Viva –voce</i>	10
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**PART - III**  
**(One year Course)**

	<b>Marks</b>
<b>Paper - IV A (Theoretical)</b>	<b>50</b>
i) Group - A: Therapeutic-Aspects of Physical Activity	25
ii) Group - B: Physical Activity and Lifestyles	25
<b>Paper -IV B (Practical)</b>	<b>Marks</b> <b>50</b>
i) Laboratory Measurements	10
ii) Game Situation	12
iii) Officiating of Games and Sports	10
iv) Administration of Fitness Testing Procedures	8
v) Attending Bratachari / First Aid Camp	5
vi) Practical Note Book and Viva-voce	5

**Note:**

1. The students will be assessed in each theoretical paper  
(Full marks: 100)  
On the basis of:
  - a) Class tests conducted by the college (internal assessment): 10 marks
  - b) Examinations conducted by Vidyasagar University: 90 marks
2. For each unit marks for internal assessment will be proportionately distributed.
3. For a paper less than 100 marks, the marks for internal assessment will be proportionately less.

**PHYSICAL EDUCATION (GENERAL)  
PART- I**

**THEORETICAL**

**Paper-I: Full Marks -100**

**(University Examination: 90 marks. Internal Assessment: 10 marks)**

**UNIT - 01 (50 MARKS)**

**Group - A: Principles and History of Physical Education (30 marks):  
30 lectures**

1. Meaning and definitions of Physical Education. Aim and objectives of Physical Education: Physical development, Motor development, Mental development and Social development objectives.
2. Nature and scope of Physical Education. Traditional concept, Modern concept, Education and Physical Education. Physical Education colleges/University departments in West Bengal.
3. History of Physical Education in Sparta and Athen.
4. Development of Physical Education and Sports in India: a) Pre-Independence (1856 -1947), b) Post-Independence.
5. Olympic movement: a) Ancient Olympic Games b) Modern Olympic Games.
6. Sports Schemes in India.

**Group - B: Psycho-Social Aspects of Physical Education and Sports**  
**(20 Marks): 20 lectures**

7. Psychological and Sociological aspects of Sports.
8. Psycho-physical unity of man.
9. Heredity and Environment.
10. Instinct, Emotion, Attention, Interest and Motivation - Role in Physical Education and Sports.
11. Physical Education activities as a socializing force.
12. Social values of Sports.
13. Personality and its development through Physical Education and Sports.

**UNIT - 02 (50 MARKS)**

**Group -C: Anatomy and Physiology (30 Marks): 30 lectures**

1. Skeletal System and Skeletal Deformities - Types of Bones, Names of various bones of the body, Types of Joints, Posture and Postural defects - Flat foot, Lordosis, Scoliosis, Kyphosis, Bow legs, Knock knees: nature, causes and corrective exercises.
2. Circulatory System - Heart and its structure, Mechanism of blood circulation - Systematic and Pulmonary.
3. Respiratory System - Organs of the system, Mechanism of respiration, Lung capacity, Vital capacity, Tidal volume, RV, IRV, ERV, FRC, Dead Space.
4. Digestive System – Organ and process of digestion.
5. Nervous System - Brain: different parts, structure and functions, Spinal cord, Reflex action.
6. Endocrine System-Endocrine glands, Functions and Locations of Pituitary, Thyroid and Adrenal Glands. Endocrine functions of Pancreas.

### **Group -D: Dietetics and Hygiene (20 Marks): 20 Lectures**

7. **Basic Nutrients** - Proteins, Carbohydrates, Fats, Minerals, Vitamins and water.
8. **Diet** - Balance diet, Athletic diet, pre- game meal, during game meal and post-game meal.
9. **Malnutrition** - Causes and effects; Mid-day meal and milk programmes.
10. **Drinks** - water, tea, coffee.
11. **Drug abuse** - Alcohol and tobacco - adverse effects on performance and health. General idea of doping.
12. **Importance of hygienic living** - Personal hygiene: Care of skin, hair, ear, throat, teeth eyes, nose feet, etc. Healthy habit.

### **Framing of questions and distribution of marks in each unit of the theoretical question paper:**

#### **I. Group A or Group C:**

1. Four short answer type questions are to be answered from seven questions of 2 marks each ( 8 marks)
2. Two semi long answer type questions are to be answered from four questions of 4 marks each ( 8 marks)
3. One long answer type question is to be answered from two questions of 9 marks each (9 marks)

#### **II. Group B or Group D:**

1. Three short answer type questions are to be answered from five questions of 2 marks each ( 6 marks) ,
2. One semi long answer type questions is to be answered from two questions of 4 marks each ( 4 marks)
3. One long answer type question is to be answered from two questions of 10 marks each (10 marks).

**PART - II**  
**THEORETICAL**  
**Paper - II: Full Marks - 100**

**(University Examination: 90 marks. Internal Assessment: 10 marks)**

**UNIT - 03 (50 MARKS)**

**Group - A: Management of Physical Education and Sports (30 Marks): 30 Lectures**

1. Management of Sports and Games in Schools, Colleges and Universities.
2. Types Tournaments. Merits and demerits of various tournaments.
3. Lay-out of Play-fields and Basic Rules:  
(a) Kabaddi (b) Kho-Kho (c) Volleyball (d) Badminton (e) Football (f) Hockey (g) Cricket (h) Basketball (i) Track and Field events.
4. Care and maintenance of Sports equipments. Various types of turfs and Pitch preparation.

**Group - B: Sports. Training and Mechanics (20 Marks): 20 Lectures**

5. **Sports Training:** Meaning, definition, principles. Conditioning, Warming-up and cooling down.
6. **Physical Fitness:** Meaning, definition, components, benefits. Health related physical fitness and performance related physical fitness components.
7. **Load:** Meaning, definition, types, sign and symptoms factors and principles. Over load- its causes and remedies.



8. **Training methods:** Circuit, Interval, Fartlek, Cross-country, Weight Training.
9. **Mechanical Principles Applied to Sports:** Motion- Types and Laws of Motion, Anatomical Lever, Equilibrium-its types and factors, Centre of Gravity.

#### **UNIT-4 (50 MARKS)**

##### **Group-C: Health Education & First Aid. (30 Marks): 30 Lectures**

1. **Health:** Meaning, Definition, components.
2. **Major Areas of Health Education:**
  - (a) Health Service - Daily health inspection, medical inspection and follow up, health records, clinic and health centre.
  - (b) Healthful Environment - Healthful Environment in education institutions, offices, playground, auditorium.
3. **Environment Hygiene** - Lighting, Ventilation, Water supply, Waste disposal.
4. **Environmental Pollution** - Air, Water, Sound, Soil pollution - causes effects and control.
5. **Mental Health** - Problems of maladjustment, minor mental disorders - their causes and precautions.
6. **Safety Education** - Safety at home, school, college, playground, streets. Prevention and Control of Communicable Diseases - Malaria, Cholera, Common Cold, Coughs, Influenza.
7. **First Aid** - Sprain, Muscle pull, Dislocation, Fracture, Cramps, Shock, Wounds and bleeding, Snake bites, Drowning, Electric Shock, Burns and Artificial Respiration.

### **Group - D: Exercise Physiology (20 Marks): 20 Lectures**

8. **Muscular System** - Various types of muscles, Structure of muscles, Effects of exercises on muscle, Muscular Contraction - Isometric, Isotonic, Isokinetic Exercises, Motor unit.
9. Effect of exercises on Circulatory system, Blood pressure.
10. Effect of exercises on Respiratory system, Oxygen debt.
11. Measurement of Cardiovascular endurance and Muscular endurance.
12. Fatigue: Types, causes, sites, signs and symptoms and remedies.

### **Framing of questions and distribution of marks in each unit of the theoretical question paper:**

#### **I. Group A or Group C:**

1. Four short answer type questions are to be answered from seven questions of 2 marks each. ( 8 marks)
2. Two semi long answer type questions are to be answered from four questions of 4 marks each. ( 8 marks)
3. One long answer type question is to be answered from two questions of 9 marks each. (9 marks)

#### **II. Group B or Group D:**

1. Three short answer type questions are to be answered from five questions of 2 marks each. ( 6 marks)
2. One semi long answer type question is to be answered from two questions of 4 marks each. ( 4 marks)
3. One long answer type question is to be answered from two questions of 10 marks each. (10 marks)

**PRACTICAL**  
**Paper - III: Full Marks - 100**

1. Track and field: 100 M run, 400 M run, 1500 M run, Putting the Shot, Discus throw, Javelin throw, High jump, Long jump, Triple jump. (One track event, one field event, one jumping event):  
(7+7+7=21 marks)
2. Gymnastics: Forward Roll & Backward Roll - (2.5+2.5=5 marks), Cartwheel - (5 marks): Dive roll/T Balance/Hand Stand/Hand Spring/ Neck Spring/ - (5 marks). (5+5+5=15 marks)
3. Indian Games: Kabaddi, Kho-Kho. (8+8= 16 marks)
4. Major Games: Volleyball, Football, Cricket, Hockey, Basketball, Badminton (Women): Fundamental skills. Any two ball games -  
(10+10= 20 marks).
5. Yogic Practice: Sabasana, Padmasana, Dhanurasana, Halasana, Ardhamatseyendrasana, Chakrasana, Sabbangasana, Shirsana, Mayurasana, Bakasana, Paschimatyasana, Kapakbhati, Anulom-vilom.  
(One compulsory by external examiner - (5 marks), one optional choice by examinee = (5 marks) : (5+5= 10 marks)
6. First Aid Practical and management of sports injury: Sprain, Dislocation, Fracture, Wounds, Muscle cramps, Bandage, Artificial respiration (Must be written in the Practical Note Book and examination may be conducted practically in front of the external examiner): (8 marks)
7. Practical Exercise Book and Viva Voce: Skills of practical activities to be recorded according to regular practical classes.  
(10 marks)

**Note: Contents of Practical Note Book:** Definitions of Physical Education, Aim and objectives of Physical Education, All Court Measurements with basic rules including Track and Field (200 mt. and 400 mt.), Figures of Yoga with demonstrating procedures, Pictures of Gymnastics demonstrating procedures, First Aid Managements with pictures.

### **LIST OF RECOMMENDED BOOKS**

1. Adhikari, S.: Sarir Sikshyay Manovidya. *Classique Books. Kolkata.*
2. Bandhopadhaya, K.: Sarir Siksha Parichaya. *Classique Books.*
3. Bandhopadhaya, K. and Dutta, B.K.: Prackcharjer Avimukh. *Classique books. Kolkata.*
4. Bhattacharya, A.K. and Bhaumik, S. (Editor): Sarir Siksha, *WB. State Book Board.*
5. Chakraborty, P. and Bhattacharjyaa, S.: Test Measurement and Evaluation in Physical Education. *Classique books. Kolkata.*
6. Chaterjee, C.C.: Human Physiology, (Vol. I & II). *Medical Allied Agency, Kolkata.*
7. Chattapadhaya, K.K., Biswas, A.K., and Das, S.S.: *Ek Najare Shasis Shikha, Parshi. Murshidabad*
8. Clarke, H and Clarke, H.: Application of Management to Physical Education. *Prentice Hall.*
9. Debnath, Jagen: Sharif Bijnan, (Vol. I & Vol II) Sridhar *Prakashani, Kolkata.*
10. Dasgupta, B. & Santra, D.C.: Jiv Vidya, *Moullick Library, Kolkata.*
11. Fox, Bowers & Foss.: The Physiological Basis of Physical Education and Athletics. *Wm. C. Brown Publishers, Dubuque, Iowa.*

12. Ganguli, L.K. & Ganguli, A.K.: First Aid: *Academic Publishers, Kolkata.*
13. Hazra, A.K. Sarir Siksha Tukitaki. *Oriental Book Co.*
14. Johnson, B.L and Nelson, J.K.: Practical Measurement for Evaluation in Physical Education. *Surjeet Publication, Delhi.*
15. Kamlesh, M.L.: Psychology in Physical Education and Sports. *Metropolotan book Co. Pvt. Ltd.*
16. Kar, S. and Mandal, I.: Amar Athletics Hand book. *Sarir Siksha Prakasani.*
17. Kar, S. and Mandal, I.: Uchatara Sarir Siksha. *Sarir Siksha Prakasani*
18. Khanna, G.L. & Joyprakash, C.S.: Exercise Physiology and Sports Medicine, *Friends Publication (India), Delhi.*
19. Pandey, K.P.: Advance Education Psychology. *Konark Publication.*
20. Pandey, P.K.: Sports Medicine. *Khel Sahitya Kendra, Delhi.*
21. Pandey, S.N.: First Aid, *Aditya Prakasharya, Kolkata.*
22. Pandey, S.N.: Sports Medicine, *Aditya Prakasharya, Kolkata.*
23. Paul, A.: Sarir Sikshaya Management. *Classique Books. Kolkata.*
24. Paul, A., SahaRoy, G. and Chakraborty, M.: Sarir Sikshaya Sastha Siskha. *Classique Booh.*
25. Pearce, E.c.: Anatomy and Physiology for Nurses, *Jaypee Brothers, New Delhi.*
26. Raghunathan, P.P.: Volleyball A Guide to Playing and Coaching. *Friends Publication, Delhi.*
27. Rai, B.C.: Health Education and Hygiene. *Prakashan Kendra.*
28. Roy, P.: Bharatio Khela Kho-Kho. *Classique Books. Kolkata.*
29. Roy, S, S.: Sports Management. *Friends Publication.*
30. Saha, A.: Sarir Sikshar Ritineeti. *Rana Publishing House. Kalyani. Nadia.*
31. Sen, R.K.: Sharif Shikhar Itihas, *West Bengal State Book Board.*

32. Sharma, a.p.: History of Physical Education. *Khel Sahitya Kendra, Delhi.*
33. Shaw, D.: Biomechanics and Kinesiology of Human Motion, *Khel Sahitya Kendra.*
34. Singh, H.: Sports Training, *Kalyani Publication, Kolkata.*
35. Sreedhar, K.: Sports Training Method. *Sowmi Publications. Chidambaram.*
36. Uppal, A. K.: Physical Fitness and Wellness, *Friends Publications.*
37. Uppal, A. K. & Brar, T.S.: Essentials of Physical Education, *Kalyani Publication, Kolkata.*

**PART-III**  
**THEORETICAL**  
**Paper - IV A: Full Marks - 50**

**(University Examination: 45 marks. Internal Assessment: 5 marks)**

**Group -A: Therapeutic Aspect of Physical Activity - (25Marks): 25 Lectures.**

1. **Exercise and Hypokinetics diseases** - Osteoporosis, obesity, Hypertension, Diabetes, Cardiovascular diseases.
2. **Exercise therapy** - Corrective, isotonic, isometric, resistance exercises. Yogasanas as a therapy, Massage therapy.
3. **Basic Principles** : Electrotherapy, hydrotherapy, cryotherapy and thermotherapy.
4. **Basic Principles of Rehabilitation** : Modalities and Relaxation techniques.

**Group - B: Physical activities and life styles - (25Marks): 25 Lectures**

1. Physical activities, health and wellness-modem concepts.
2. Health and fitness-active life style.
3. Physical activity and childhood -growth and development.
4. Physical activity and women-pre-pubertal, adolescent and post-adolescent periods, pregnancy, Limitations of female in athletics.
5. Physical activity for the aged, exercise and physiology of aging, Loss of functional capacity with age, risks of exercise among the aged.
6. Physical activity for the disabled. Types of disability, programme for the disabled persons.

## **Framing of questions and distribution of marks in the theoretical question paper -IVA:**

### **I. Group A :**

1. Four short answer type questions are to be answered from seven questions of 2 marks each ( 8 marks)
2. Two semi long answer type questions are to be answered from four questions of 4 marks each ( 8 marks)
3. One long answer type question is to be answered from two questions of 9 marks each (9 marks).

### **II. Group B:**

1. Three short answer type questions are to be answered from five questions of 2 marks each ( 6 marks)
2. One semi long answer type questions is to be answered from two questions of 4 marks each ( 4 marks)
3. One long answer type question is to be answered from two questions of 10 marks each (10 marks),



**PRACTICAL**  
**Paper - IVB: Full Marks - 50**

1. **Laboratory Measurements:** Height, weight, BMI, grip strength, back strength, leg strength; length, width and circumference of bones. 10 marks
2. **Game Situation:** Any one team game from 2nd year syllabus with applying basic skills. 12 marks
3. **Officiating of Games and Sports:** 10 marks
4. **Administration of Fitness Testing Procedures:** 08 marks
5. **Strength:** Medicine ball put, Standing broad jump / Vertical jump, Push up/Pull up.
6. **Endurance:** Muscular - Sit-up, Squat-thrust; Cardio-respiratory: Cooper Test and Harvard step test.
7. **Speed:** 50 mt. dash.: (Examinee will write all the administration of fitness testing procedures in the Practical Note Book with their respective objectives, essential equipments, procedure and scoring.
8. **Attending Bratachari/ First Aid Camp:** 05 marks
9. **Practical Note Book.** 05 marks

**LIST OF RECOMMENDED BOOKS**

1. Badya, A.K. & Chattopadhaya, K.: Ironmans Physiotherapy, *Ironman Publishing House. Kolkata.*
2. Bhattacharyya, A.K., Debnath, P. & Bhowmick, S.: Therapeutic Dimension of Physical Education and Sports, *Classique books. Kolkata.*
3. Chakraborty, P. and Bhattacharjya, S.: Test Measurement and Evaluation in Physical Education. *Classique books. Kolkata.*

4. Chattapadhaya, K.K., Biswas, A.K., and Das, S.S.: *Ek Najare Shasis Shikha, Parshi, Murshidabad.*
5. Kar, S. and Mandai, I.: Uchatara Sarir Siksha. *Sarir Siksha Prakasani.*
6. Majumder, R.: Yogasane Rog Arogya, *Sribhumi Publishing Company, Kolkata.*
7. Mukhopadhaya, K.: Sarir Shikha Prasange, *SSPublication, Kolkata.*
8. Pandey, S.N.: First Aid, *Aditya Prakashalya, Kolkata.*
9. Pandey, S.N.; Physiotherapr, *Aditya Prakashalya, Kolkata.*
10. Pandit, S.N.: Speaking of Yoga A Practical Guide to Better living, *Sterling Publishers Private Limited.*
11. Saha, P.M.: Adunik Sharif Shikha O Padhhati, *Parul Publication, Kolkata.*
12. Uppal, A. K.: Physical Fitness and Wellness, *Friends Publications.*