Syllabus
For
B.A. /B.Sc. 3-Year (General) Degree Course in
Physical Education
w.e.f. 2015-16 onward

REVISED IN 2015: TO BE EFFECTIVE FROM THE ACADEMIC SESSION 2015-2016 AND REALLOCATION OF PAPERS FOR PART I, PART II & PART III AS PER THE RESOLUTIONS ADOPTED IN THE MEETING OF THE U.G. BOARD OF STUDIES IN PHYSICAL EDUCATION HELD ON 01.06.2015 AT RAJBATI, THE UNIVERSITY OF BURDWAN.

The University of Burdwan
Burdwan-713104, West Bengal
Section 1: Course Structure

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<th>Exam Pattern</th>
<th>Type</th>
<th>Paper</th>
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<th>Minimum No. of Lectures Required</th>
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</table>
| Part- I      | Theoretical | I     | Unit- I: Principles and Foundation of Physical Education  
Unit- II: History of Physical Education  
Unit- III: Anatomy and Physiology  
Unit- IV: Organisation and Administration of Physical Education and Sports | 100   | 100                              | 3 Hours |
| Part- II     | Theoretical | II    | Unit- I: Health Education and Dietetics  
Unit- II: Exercise and Sports Physiology  
Unit- III: Sports Psychology  
Unit- IV: Test, Measurement and Evaluation in Physical Education | 100   | 100                              | 3 Hours |
|              | Practical   | III   | Unit- I: Practical in Field  
Unit- II: Practical in Laboratory | 100   | -                                | 5 Hours  |
| Part- III    | Theoretical | IV-A  | Unit- I: Sports Training  
Unit- II: Therapeutic Aspect of Physical Education  
Unit- III: Recreation and Adapted Physical Education | 65    | 65                               | 3 Hours  |
|              | Practical   | IV-B  | Practical                         | 35    | -                                | 3 Hours  |
Section 2: Syllabus with Details of Marks Division

PART- I

Paper- I

Full Marks: 100
Examination Time: 3 Hours

Unit- I: Principles and Foundation of Physical Education (25 Marks)

1. Meaning and definition of Physical Education. Aim and objectives of Physical Education. (6 Lectures)
2. Importance of Physical Education in modern society. (3 Lectures)
3. Biological basis of Physical Education
   3.1 Meaning and definition of growth and development. Factors affecting growth and development. Principles of growth and development.
   3.2 Chronological age, anatomical age, physiological age and mental age.
   3.3 Age and sex differences (Anatomical & Physiological) in relation to physical activities and sports.
   3.4 Somatotype- meaning and history, Sheldon and Heath & Carter’s methods.
4. Sociological basis of Physical Education (6 Lectures)
   4.1 Meaning and definition of Sociology. Social values of sports in modern society. National and International integration through physical education and Sports.
   4.2 Leadership: Meaning, Definition and Type of leadership. Qualities of good leader.

Unite- II: History of Physical Education (25 Marks)

5. Historical development of Physical Education and Sports in India (7 Lectures)
   5.1 Pre-Independence period:
      5.1.1 Hindu Period (600 BC – 1000AD)
      5.1.2 Medieval Period (1000 AD – 1757 AD)
      5.1.3 British Period (1757 AD – 1946 AD)
   5.2 Post-Independence period
6. Olympic Movement (6 Lectures)
   6.1 Ancient Olympic Games
   6.2 Modern Olympic Games
7. Brief historical background of Asian Games and Commonwealth Games. (6 Lectures)
8. National Sports Awards (6 Lectures)
   8.1 Arjuna Award
   8.2 Rajiv Gandhi Khel Ratna Award
   8.3 Dronacharya Award
Unit- III: Anatomy and Physiology (25 Marks)

9. Introduction (2 Lectures)
   9.1 Meaning and definition of Anatomy and Physiology.
   9.2 Need for knowledge of Anatomy and Physiology in the field of Physical Education.

10. Levels of organisation of Human Body (3 Lectures)
    10.1 Concepts of Cell, Tissue, Organ and System
    10.2 Microscopic structure and function of cell

11. Skeletal System (5 Lectures)
    11.1 Different parts of human skeleton and their functions
    11.2 Type of bones.
    11.3 Nomenclature and classification of joints. Movements take place around different type of joints.

12. Muscular System (5 Lectures)
    12.1 Function and type of muscle
    12.2 Microscopic structure of skeletal muscle
    12.3 Name of major muscles of the human body

13. Circulatory System (5 Lectures)
    13.1 Anatomical position and gross structure of heart.
    13.2 Physiology of blood circulation.

14. Respiratory System (5 Lectures)
    14.1 Different organs associated with respiratory system.
    14.2 Structure and functions of Lungs.

Unit- IV: Organisation and Administration of Physical Education and Sports (25 Marks)

15. Organisation and Administration: Meaning and definition. (5 Lectures)
    15.1 Elements of Organisation and Administration in Physical Education
    15.2 Guiding principles of Organisation and Administration in Physical Education
    15.3 Method of organising Annual Athlete Meet and Play Day.

16. Tournaments: Meaning and definition. (16 Lectures)
    16.1 Types of tournaments
        16.1.1 Knock-out
        16.1.2 League
        16.1.3 Combination
        16.1.4 Challenge
    16.2 Procedure of drawing fixture
    16.3 Merits and demerits of Knock-out and League tournament

17. Importance and maintenance of play ground and gymnasium. (2 Lectures)

18. Care and maintenance of sports equipments. (2 Lectures)
PART- II
Paper- II

Full Marks: 100  Examination Time: 3 Hours

Unit- I: Health Education and Dietetics (25 Marks)

1. Meaning and definition of Health and Health Education. Principles of Health Education. Importance of Health Education. (3 Lectures)
2. Health Agencies (6 Lectures)
   2.1 World Health Organization (WHO)
   2.2 United Nations Educational Scientific and Cultural Organization (UNESCO)
   2.3 Indian Council of Medical Research (ICMR)
   2.4 Ministry of Health and Family Welfare (MHFW)
3. Meaning and definition of nutrition and food. Types of food: Proximate principle of food (carbohydrate, protein and fat) and Protective principle of food (vitamins, mineral salts and water) - sources of food (plants and animals), role in food and deficiency symptoms. (7 Lectures)
4. Diets (5 Lectures)
   4.1 Balance diet- Meaning, definition and characteristics.
   4.2 Factors affecting diet.
   4.3 Malnutrition: Definition, causes and effects.
5. Doping: Meaning and definition (4 Lectures)
   5.1 Anabolic Steroids
   5.2 Blood doping
   5.3 Beta-blockers

Unit- II: Exercise and Sports Physiology (25 Marks)

6. Meaning and definition of exercise and sports physiology. (3 Lectures)
7. Effect of exercise on muscular system. (6 Lectures)
8. Effect of exercise on cardiovascular system. (6 Lectures)
9. Effect of exercise on respiratory system. (6 Lectures)
10. Physical fitness: Health and Performance oriented physical fitness (4 Lectures)

Unit- III: Sports Psychology (25 Marks)

11. Introduction (3 Lectures)
   11.1 Meaning and definition of Sports Psychology.
   11.2 Need for knowledge of Sports Psychology in the field of Physical Education.
12. Learning (10 Lectures)
   12.1 Meaning, definition and nature of learning.
   12.2 Theories of learning
   12.3 Laws of learning
   12.4 Learning curve: Meaning, Type and Characteristics
12.5 Transfer of learning
   12.5.1 Meaning, Definition and Type
   12.5.2 Factors affecting transfer of learning

13. Motivation (4 Lectures)
   13.1 Meaning, Definition and Type
   13.2 Importance of Motivation in Physical Education and Sports

14. Emotion (4 Lectures)
   14.1 Meaning, Definition and Type
   14.2 Importance of Emotion in Physical Education and Sports

15. Personality (4 Lectures)
   15.1 Meaning, Definition and Type
   15.2 Personality traits
   15.3 Role of physical activities in the development of personality

Unit-IV: Test, Measurement and Evaluation in Physical Education (25 Marks)

16. Introduction (2 Lectures)
   16.1 Meaning and definition of test, measurement and evaluation
   16.2 Importance of test, measurement and evaluation in Physical Education and Sports

17. Criteria for selecting tests (4 Lectures)

18. Measurement of Cardio-vascular Endurance (4 Lectures)
   18.1 Harvard Step Test
   18.2 Cooper 12-minute Walking-Running Test

19. Measurement of Physical Fitness and Motor Fitness Test (6 Lectures)
   19.1 AAHPER Youth Physical Fitness Test
   19.2 Oregon Motor Fitness Test

20. Measurement of Body Composition: Method of measuring body density, % body fat, lean body mass (5 Lectures)

   21.1 Russel-Lange Volleyball Test
   21.2 McDonald Soccer Skill Test
   21.3 Lockhart and McPherson Badminton Skill Test
PART- II

Paper- III (Practical)

Full Marks: 100       Examination Time: 5 Hours

Unit- I:   Practical in Field   (Full Marks 80)

1.  ATHLETICS

1.1  Track Events

1.1.1  Starting techniques: Standing Start, Crouch Start and its variations, Use of Block.

1.1.2  Acceleration with proper running techniques.

1.1.3  Finishing technique: Run Through, Forward Lunging, Shoulder Shrug.

1.2  Field Events

1.2.1  Long Jump: Approach run, Take-off, Flight in the air (Hang Style/Hitch Kick) and Landing.

1.2.2  High Jump: Approach run, Take-off, Bar clearance (Straddle Role) and Landing.

1.2.3  Shot Put: Holding the Shot, Placement, Initial Stance, Glide, Delivery Stance and Recovery. (O'Brien technique)

1.2.4  Discus Throw: Holding the Discus, Initial Stance, Primary Swing, Turn, Release and Recovery.

1.2.5  Javelin Throw: Grip, Carry, Release and Recovery.

[Note: Track event is compulsory (5 Marks) and one Jumping event (5 Marks) and one Throwing event (5 Marks) from the Field events.]

2.  GYMNASTICS

2.1  Compulsory

2.1.1  Forward Roll

2.1.2  T-Balance

2.1.3  Split

2.1.4  Backward Roll

2.1.5  Cart-Wheel

[Note: Perform the above Gymnastic skills continuously in the same sequence]

2.2  Optional any two

2.2.1  Hand Spring

2.2.2  Neck Spring

2.2.3  Head Spring

2.2.4  Dive Roll

2.2.5  Hand Stand followed by Roll

2.2.6  Somersault

[Note: Perform the above Gymnastic skills continuously in the same sequence]
3. YOGASANA (10 Marks)

3.1 Standing Position
   3.1.1 Ardhachandrasana
   3.1.2 Padahastasana
   3.1.3 Brikshasana

3.2 Sitting Position
   3.2.1 Ardhakurmasana
   3.2.2 Paschimottanasana
   3.2.3 Gomukhasana

3.3 Supine Position
   3.3.1 Setubandhasana
   3.3.2 Halasana
   3.3.3 Matsyasana

3.4 Prone Position
   3.4.1 Bhujangasana
   3.4.2 Salvasana
   3.4.3 Dhanurasana

3.5 Inverted Position
   3.5.1 Sarbangasana
   3.5.2 Shirasana
   3.5.3 Bhagrasana

[Note: One Asana is compulsory from each position (2×5=10 Marks)]

4. MAJOR GAMES (30 Marks)

4.1 Ball Games (Any One- 10 Marks)

4.1.1 Basketball
   - Passing Techniques: Two hand chest pass, Two hand bounce pass, Side arm pass, Over head pass, Hook pass.
   - Receiving Techniques: Two hand receiving, One hand receiving, Receiving while running, Receiving while jumping.
   - Dribbling: How to start dribble, How to stop dribble, Running with high and low dribble.
   - Shooting: One hand set shot, One hand jump shot, Lay-up shot and its variations.
   - Game practice with application of Rules and Regulations.

4.1.2 Football
   - Kicking: Instep kick, Inside kick, Lifted kick, In-swing kick, Out-swing kick.
   - Receiving: Sole receive, Inside receive, Instep receive, Thigh receive, Chest receive.
   - Dribbling: Inside dribbling, Outside dribbling, Zig-zag dribbling.
   - Heading and Throw-in: Short & Long.
   - Goal Keeping
   - Game practice with application of Rules and Regulations

4.1.3 Handball
   - Griping/Catching/Receiving Technique
Passing Technique: Shoulder pass, Chest pass, Under hand pass, Over head pass, Bounce pass, Reverse pass.
Goal Shooting: Side shot, Jump shot, Jump and fall shot, Bounce shot.
Bouncing/Dribbling
Blocking and Goal Keeping
Game practice with application of Rules and Regulations

4.1.4 Volleyball
Service: Under arm service, Side arm service, Tennis service, Floating service.
Pass: Under arm pass, Over head pass.
Spiking and Blocking
Game practice with application of Rules and Regulations.

4.2 Indian Games (Any One- 10 Marks)

4.2.1 Kho-Kho
Attacker/Chaser’s Skills: Sitting in the box (Bullet & Parallel Toe Method), Giving Kho (Early Kho, Late Kho, Judgment Kho), Pole Turning, Taping, Pole Dive, Monkey Style.
Defender/Runner’s Skills: Single Chain, Double Chain, Mixed Chain and Ring Play.
Game practice with application of Rules and Regulations.

4.2.2 Kabaddi
Attacker/Raider’s Skills: Cant, Hand Touching, Toe Touching, Squat Leg Thrust, Side Kick, Mule Kick.
Defender/Anti’s skills: Ankle Catch, Knee Catch, Thigh Catch, Waist Catch, Hand Catch, Bear Hug.
Game practice with application of Rules and Regulations.

4.3 Racket Games (Any One- 10 Marks)

4.3.1 Badminton
Racket parts, Racket grips, Shuttle grips.
Service: Short service, Long service, Long-high service.
Shots: Over head shot, Defensive clear shot, Attacking clear shot, Drop shot, Net shot, Smash.
Game practice with application of Rules and Regulations.

4.3.2 Table Tennis
Grip of the Racket: Shake Hand Grip, Pen Hold Grip
Stance: Square, Parallel
Push and Service: Backhand, Forehand
Chop: Backhand, Forehand
Receive: Push and Chop with both Backhand & Forehand
Game practice with application of Rules and Regulations.
5. **First-aid Practical** *(5 Marks)*

5.1 Triangular Bandage:
- Slings: Arm Sling, Collar & Cuff Sling
- Bandaging: Scalp, Forehead, Chest

5.2 Roller Bandages: Simple Spiral, Reverse Spiral, Figure of Eight, Spica

*For tying bandage ‘REEF KNOT’ must be always used.*

[Note: One from each Bandage (2.5×2=5 Marks)]

6. **Record Book and Viva-Voce** *(8+2 = 10 Marks)*

6.1 History
6.2 Field measurements with suitable diagram
6.3 Major tournaments
6.4 Name of 10 personalities (national & International)
6.5 Achievement of India in International level
6.6 Major skill with suitable diagram and part explanation

**Unit- II: Practical in Laboratory** *(20 Marks)*

1. **Practical in Physiological Laboratory** *(10 Marks)*

1.1 Measurement of pulse rate & respiratory rate in rest & exercise condition
1.2 Measurement of blood pressure
1.3 Measurement of:
   - Strength- Grip Dynamometer Test
   - Power- Sargent Jump Test
   - Flexibility- Sit and Reach Test
1.4 Measurement of vital capacity
1.5 Measuring Physical Efficiency Index by Harvard Step Test

2. **Practical in Kin-Anthropometry Laboratory** *(10 Marks)*

2.1 Body Mass Index
2.2 Body Density (Males: Jackson & Pollock- 1978 Seven Sites; Females: Jackson et al.- 1980 Seven Sites)
2.3 % Body Fat (Siri 1956)
2.4 Lean Body Mass
2.5 Somatotype (Heath-Carter- 1990)
PART- III

Paper- IV
Group- A (Theory)

Full Marks: 65       Examination Time: 3 Hours

Unit- I:   Sports Training   (25 Marks)

1. Introduction to Sports Training   (5 Lectures)
   1.1 Meaning and definition of Sports Training
   1.2 Aim and Characteristics of Sports Training
   1.3 Principles of Sports Training

2. Training Load and Adaptation   (7 Lectures)
   2.1 Meaning and Definition of load and adaptation
   2.2 Type and Components training load
   2.3 Causes and symptoms of over load
   2.4 Principles of load
   2.5 Relationship between load and adaptation

3. Training Methods   (7 Lectures)
   3.1 Continuous training methods
      3.1.1 Slow Continuous method
      3.1.2 Fast Continuous method
      3.1.3 Variable Pace method
      3.1.4 Fart-lake training method
   3.2 Interval training method
      3.2.1 Intensive Interval training method
      3.2.2 Extensive Interval training method
   3.3 Circuit training method

4. Training Programming   (6 Lectures)
   4.1 Meaning, Definition and types of Periodisation
   4.2 Aims and contents of different periods

Unit- II:   Therapeutic Aspect of Physical Education   (25 Marks)

5. Introduction   (4 Lectures)
   5.1 Meaning and definition of physiotherapy
   5.2 Need for the knowledge of Physiotherapy in the field of Physical Education and Sports

6. Hydrotherapy- meaning and definition   (4 Lectures)
   6.1 Cryo-therapy
   6.2 Contrast bath

7. Heat therapy   (4 Lectures)
   7.1 Hot Pack
   7.2 Wax bath
8. Electro therapy  
   8.1 TENS  
   8.2 Ultra-sound wave
9. Yoga as a therapy
10. Massage therapy  
    10.1 Meaning, definition and type of massage  
    10.2 Principles and Contradictions of massage
11. Sports Injuries  
    11.1 Meaning, Definition, Types, Symptoms and Treatment of common sports injuries  
       11.1.1 Sprain  
       11.1.2 Strain  
       11.1.3 Fracture  
       11.1.4 Dislocation  
    11.2 Immediate care of Injuries- PRICE

Unit- III: Recreation and Adapted Physical Education (15 Marks)

12. Recreation  
   12.1 Meaning, Definition and Type of recreation  
   12.2 Importance of recreation in modern society  
   12.3 Recreation providing agencies
13. Adapted Physical Education  
   13.1 Meaning, Definition and Objectives of Adapted Physical Education  
   13.2 Disability: Meaning, Definition and Type. Physical exercise programme for different type of disable.
PART- III

Paper- IV
Group- B (Practical)

Full Marks: 35       Examination Time: 3 Hours

1. Practical in Physiotherapy Laboratory (10 Marks)

1.1 Use of Hydrotherapy Modalities
   1.1.1 Cryo-therapy
   1.1.2 Contrast bath

1.2 Use of Heat therapy Modalities
   1.2.1 Hot Pack
   1.2.2 Wax bath

1.3 Use of Electro therapy Modalities
   1.3.1 TENS
   1.3.2 Ultra-sound wave

1.4 Massage technique
   1.4.1 Effleurance
   1.4.2 Kneading
   1.4.3 Friction
   1.4.4 Cupping
   1.4.5 Beating
   1.4.6 Vibration

[Note: One from each group (2.5×4=10 Marks)]

2. Practical in Psychological Laboratory (5 Marks)

2.1 Reaction Time
2.2 Mirror Drawing
2.3 Anticipatometer
2.4 Depth Perception

[Note: Any Two (2.5×2= 5 Marks)]

3. Project Work (Written Project Report: 6 + Viva-Voce: 4 = 10 Marks)

3.1 Subjects: Physical Fitness Components, Body composition and Somatotype, Educational Tour, Leadership Camp

3.2 Guidelines:
   • Project Report is to be Hand-Written
   • Text of the Report should not exceed 1500 words
   • Diagrams and Photos should not exceed 10

3.3 Project Report Format:
   • Introduction
• Procedure
• Results
• Conclusions
• References

4. **Computer application in Physical Education and Sports** (10 Marks)

4.1 MS Word
4.2 MS Excel
4.3 MS Power Point
4.4 Information and Communication Technology
Section 3: References

PAPER- I

Principles and Foundation of Physical Education


History of Physical Education


Anatomy and Physiology


Organisation and Administration of Physical Education and Sports


**PAPER- II**

**Health Education and Dietetics**


**Exercise and Sports Physiology**


**Sports Psychology**

Test, Measurement and Evaluation in Physical Education


PAPER- IV

Sports Training


Therapeutic Aspect of Physical Education

Section 4: Guidelines for Practical Papers- III & IV B.

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

Laboratory Practical will be consisting of Written and Practical Test (Question paper will be set by the University both for Field & Laboratory Practical, which will be evaluated by the External Examiner with the assistance of Internal examiner).

*** Practical Paper- IV-B: Full Marks: 35

Laboratory Practical will be consisting of Written and Practical Test (Question paper will be set by the University, which will be evaluated by the Internal examiner).

N.B.: Maximum 20 examinees will be evaluated in a day in case of both of the Papers- III & IV B.

Section 5: List of Equipments for Practical (Field & Laboratory)

Equipments Requirement for Field Practical

ATHLETIC SECTION
1. Starting Block
2. Starting Gun (Pistol)
3. Starting Clapper
4. Finishing Post
5. Javelin
6. Javelin Arc
7. Shot Put
8. Stop Board
9. Shot Put Circle
10. Discus
11. Discus Circle
12. High Jump Stand
13. Cross Bar
14. High Jump Mattress
15. Take off Board
16. Measuring Tape
17. Victory Stand
18. Judge Stand
19. Flag Stand
20. Flame Torch (Moshal)
21. Stop Watch
22. Ground Umbrella

FOOTBALL SECTION
1. Football
2. Football Goal Post
3. Football Goal Net
4. Corner Post & Flag
5. Player Chang Board
6. Cone

VOLLEYBALL SECTION
1. Volleyball
2. Volleyball Net
3. Volleyball Net Post
4. Volleyball Net Antennae
5. Volleyball Referee’s Stand & Chair

BADMINTON SECTION
1. Badminton Racket
2. Badminton Net
3. Badminton Net Post
4. Badminton Shuttle Cock
BASKETBALL SECTION
1. Basketball
2. Basketball Goal Post Complete Set with Ring

Table Tennis Section
1. T.T. Table
2. T.T. Bat
3. T.T. Ball

HANDBALL SECTION
1. Handball
2. Handball Goal Post
3. Handball Goal Net

KHO-KHO SECTION
1. Kho-kho Post

GYMNASTIC SECTION
1. Gymnastic Mattress
2. Gymnastic Floor Exercise Mattress

YOGA SECTION
1. Yoga Mat
2. Cotton Floor Mat (Sataranchi)

**Equipments Requirement for Laboratory Practical**

**PHYSIOLOGICAL LABORATORY**
1. Stop Watch
2. Stethoscope
3. Sphygmomanometer
4. Dynamometer (Grip & Back)
5. Goniometer / Flexometer
6. Peak Expiratory Flow Meter
7. Spirometer
8. Douglas Bag
9. Metronome

**KIN-ANTHROPMETRY LABORATORY**
1. Stadiometer / Anthropometer
2. Weighing Machine
3. Flexible Tape
4. Skinfold Calliper
5. Lange Calliper

**PHYSIOTHERAPY LABORATORY**
1. Contrast bath
2. Hot Pack
3. Ultra-violet Rays
4. Wax bath
5. TENS
6. Ultra-sound wave
7. Massage Table

**PSYCHOLOGICAL LABORATORY**
1. Reaction Time
2. Mirror Drawing
3. Anticipatometer
4. Depth Perception

**COMPUTER LABORATORY**
1. Computers
2. Printer
3. Scanner
4. Internet Connection
Burdwan University: The university makes sincere efforts to arrange a number of interviews both on-campus and off-campus, where the students need to prove their merits to secure employment. Some of the major recruiters at the university are Cognizant, TCS, IBM, L&T. As for which is better between CU or Burdwan University that depends on the specific course. The faculty should also be taken into consideration while choosing. Read more.

The University of Burdwan, located in Burdwan, is one of the leading teaching and research university in West Bengal, India. Since its opening in 1960, Burdwan University has been dedicated to finding solutions to big challenges and to preparing students for leadership in a complex world. The University of Burdwan is a place for empowerment of the youth; for the fusion and refinement of ideas coming from different directions as also those emanating from interactive minds. The university offers an opportunity to invent and reinvent the thoughtful minds, for widening the horizon much beyond Read more their immediate confines.

Asian University Football Championship at Jin-Jiang, China. Convocation-2019 Ms. Swapna Barman, Indian Heptathlete addressing the gathering. Convocation-2019 Sri Sanjib Chattopadhyay, Bengali novelist-cum-short story writer addressing the gathering. The University has been accredited with 'Grade A' by NAAC in the year 2016 India Today Rank of The University of Burdwan for the year of 2021 is 16.