

**Department of Physical Education & Sports Sciences
(Faculty of Inter-disciplinary & Applied Sciences) University of Delhi, C/O IGIPSS,
B-Block, Vikaspuri, New Delhi-110018**

Website: www.dudpess.du.ac.in email: dudpess1@gmail.com

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SYLLABUS FOR WRITTEN TEST TO B.Sc.(PE,HE&S) COURSE 2019-20

A. CBSC CLASS XII 2018-19 Physical Education Syllabus

Unit I Planning in Sports

- Meaning & Objectives Of Planning
- Various Committees & its Responsibilities (pre; during & post)
- Tournament - Knock-Out, League Or Round Robin & Combination
- Procedure To Draw Fixtures - Knock-Out (Bye & Seeding) & League (Staircase & Cyclic)
- Intramural & Extramural - Meaning, Objectives & Its Significance
- Specific Sports Programme (Sports Day, Health Run, Run For Fun, Run For Specific Cause & Run For Unity)

Unit II Sports & Nutrition

- Balanced Diet & Nutrition: Macro & Micro Nutrients
- Nutritive & Non-Nutritive Components Of Diet
- Eating For Weight Control - A Healthy Weight, The Pitfalls Of Dieting, Food Intolerance & Food Myths
- Sports nutrition & its effect on performance (fluid & meal intake, pre, during & post competition)
- Food supplement for children

Unit III Yoga & Lifestyle

- Asanas as preventive measures
- Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana
- Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pavan Muktasana, Ardh Matsyendrasana
- Asthema: Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana
- Hypertension: Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Sharasana
- Back Pain: Tadasana, Ardh Matsyendrasana, Vakrasana, Shalabhasana, Bhujangasana

Unit IV Physical Education & Sports for CWSN (Children With Special Needs - *Divyang*)

- Concept of Disability & Disorder
- Types of Disability, its causes & nature (cognitive disability, intellectual disability, physical disability)
- Types of Disorder, its cause & nature (ADHD, SPD, ASD, ODD, OCD)
- Disability Etiquettes
- Advantage of Physical Activities for children with special needs
- Strategies to make Physical Activities assessable for children with special need.

Unit V Children & Sports

- Motor development & factors affecting it
- Exercise Guidelines at different stages of growth & Development
- Advantages & disadvantages of weight training
- Concept & advantages of Correct Posture
- Causes of Bad Posture
- Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scolioses
- Corrective Measures for Postural Deformities

Unit VI Women & Sports

- Sports participation of women in India
- Special consideration (Menarch & Menstrual Disfunction)
- Female Athletes Triad (Oestoperosis, Amenoria, Eating Disorders)
- Psychological aspects of women athlete
- Sociological aspects of sports participate

Unit VII Test & Measurement in Sports

- Computation of Fat Percentage -
 - o Slaughter - Lohman Children Skinfold Formula:
 - o Triceps & Calf Skinfold (Male 6 to 17 yrs - % body fat = (0.735 X sum of skinfold) + 1.0
o (Female 6 to 17 yrs - % body fat = (0.610 X sum of skinfold) + 5.0
- Measurement of Muscular Strength - Kraus Weber Test
- Motor Fitness Test-AAPHER

- General Motor Fitness-Barrow three item general motor ability (Standing Broad Jump, Zig Zag Run, Medicine Ball Put - For Boys: 03 Kg & For Girls: 01 Kg)
- Measurement of Cardio Vascular Fitness-Harvard Step Test/Rockport Test -
 Computation of Fitness Index:
$$\frac{\text{Duration of the Exercise in Seconds} \times 100}{5.5 \times \text{Pulse count of 1-1.5 Min after Exercise}}$$
- Rikli & Jones - Senior Citizen Fitness Test
 1. Chair Stand Test for lower body strength
 2. Arm Curl Test for upper body strength
 3. Chair Sit & Reach Test for lower body flexibility
 4. Back Scratch Test for upper body flexibility
 5. Eight Foot Up & Go Test for agility
 6. Six Minute Walk Test for Aerobic Endurance

Unit VIII Physiology & Sports

- Gender differences in physical & physiological parameters.
- Physiological factor determining component of Physical Fitness
- Effect of exercise on Cardio Vascular System
- Effect of exercise on Respiratory System
- Effect of exercise on Muscular System
- Physiological changes due to ageing
- Role of physical activity maintaining functional fitness in aged population

Unit IX Sports Medicine

- Concept, Aims & Scope of Sports Medicine
- Sports injuries: Classification, Causes & Prevention
- First Aid - Aims & Objectives
- Management of Injuries:

Soft Tissue Injuries:

(Abrasion, Contusion, Laceration, Incision, Sprain & Strain)

Bone & Joint Injuries:

(Dislocation, Fractures: Stress Fracture, Green Stick, Communated, Transverse Oblique & Impacted)

Unit X Kinesiology, Biomechanics & Sports

- Introduction to Axes & Planes
- Types of movements (Flexion, Extension, Abduction & Adduction)
- Major Muscles involved in running, jumping & throwing
- Newton's Law of Motion & its application in sports
- Projectile & factors affecting Projectile Trajectory
- Friction & Sports

Unit XI Psychology & Sports

- Understanding Stress & Coping Strategies (Problem Focussed & Emotional Focussed)
- Personality; its definition & types - Trait & Types (Sheldon & Jung Classification) & Big Five Theory
- Motivation, its type & techniques
- Exercise Adherence; Reasons to Exercise, Benefits of Exercise
- Strategies for Enhancing Adherence to Exercise
- Meaning, Concept & Types of Aggressions in Sports

Unit XII Training in Sports

- Strength - Definition, types & methods of improving Strength - Isometric, Isotonic & Isokinetic
- Endurance - Definition, types & methods to develop Endurance-Continuous Training, Interval Training & Fartlek Training
- Speed - Definition, types & methods to develop Speed - Acceleration Run & Pace Run

Flexibility - Definition, types & methods to improve flexibility

- Coordinative Abilities - Definition & types
- Circuit Training - Introduction & its importance

Unit XIII General Knowledge (National & International)

General knowledge on Sports Events, Sports persons, Awards & Honours, Tournament & Trophies, Sports Personalities, Sports Administrators, Sports Federations (National & International), Sports Policies, Sports Abbreviations, Rules of games & Sports, Sports Equipments, Sports Terminology, Sports Infrastructure & stadia measurement of field & Court of various sports/ games sports, technology.

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B. Eligibility Conditions for Admission to B.Sc. (PEHE&S) Course 2019-20

1. Eligibility Criteria for Admission to B.Sc. (PE, HE &S)

- Candidate seeking admission B.Sc. (PE,HE&S) Sem-I, course must have passed Senior Secondary (10+2) examination of CBSE New Delhi or an examination recognized as equivalent there to with at least 45% marks in the aggregate (The aggregate marks will be determined on the basis of one language and three best subject)
- In B.Sc. (PE,HE & S) 5% seats will be reserved for those students who have studied and secured more than 60% marks in Physical Education in Senior Secondary (10+2) examination.
- **Weightage for the components of (B.Sc. (PE,HE & S) entrance Test shall be as follows in**

Table :

TABLE		
S.No.	Name of the Test	Awards
1.	Written Test	50 Marks
2.	Physical Fitness Test	20 Marks
3.	Sports Proficiency Award	30 Marks

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Information Bulletin for Admission Process for
Physical Education Courses: B.Sc. (PEHE&S) Course 2019-20

c Instructions for Candidates for Admission 2019-20 B.Sc. (PEHE&S)

1. The candidates who will qualify on the basis of entrance examination/tests must appear in all the components of the admission process mentioned below:-
 - **Written Test**
 - **Physical Fitness Test**
 - **Sports Proficiency Marks**
2. **Absenting from any of the test components as mentioned above will result in the cancellation of the candidature in respective course Admission.**
3. A candidate is required to visit website of the College i.e. www.igipess.du.ac.in for information on daily basis.
4. The candidate will be awarded Sports Proficiency Weightage in accordance with norms which could be downloaded from the website. Candidate is required to present the original and self-attested photocopy of the claimed certificates to the admission committee. For Sports Proficiency Weightage only the highest value certificate will be considered.
5. Syllabus for entrance test could be downloaded from the University Admission Portal as well as website of the College.
6. Candidate will be awarded marks for Physical fitness as per the norms of Physical Fitness Test. These norms could be downloaded from the website of the College.
7. The candidates must check the Indira Gandhi Institute of Physical Education & Sports Sciences website i.e. www.igipess.du.ac.in and alert menu as reflected in UG Admission portal of University of Delhi for B.Sc. (PEHE&S) Course.
8. The candidate has to fill the additional forms by downloading from the website of the College i.e. www.igipess.du.ac.in and submit to the Committee during the first day of reporting for admission process of Physical Fitness Test.
 - **Entrance Test Card for B.Sc.(PEHE&S) Admission 2019-20.**
 - **Medical Fitness Certificate for B.Sc.(PEHE&S) Admission 2019-20.**
9. Schedule for the conduct of various admission components can be seen in the University Admission Portal as well as in the website of the College.
10. Incase any document submitted by the candidate is found fake during any stage of course of study in such case the admission of the candidate shall be cancelled.
11. The IGIPESS shall not be responsible incase any injury is occurred to a candidate during the Admission process to various degree courses B.Sc. (PEHE&S)
12. For all enquires send an email (principal@igipess.du.ac.in) to the College.

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D. Entrance Test Card for B.Sc. (PEHE&S)2019-20.

- Entrance Examination (Written Test Roll No.): _____ (to be filled by the candidate, if not allotted leave it blank)
- Online Application Form No. : _____ (To be filled by the Candidate)
- Write in Capital letters:-

(i) Name (Mr. /Ms.).....

(ii) Gender (Male/Female).....

(iii) Father's/Guardian's Name.....

(iv) Mother's Name.....

(v) Date of Birth

(vi) Address.....

.....

(vii) Mobile No.:Residence:.....

(viii) E-mail Id:.....

Affix a self attested recent passport size photograph with cross signature

Signature of Student

DO NOT WRITE BELOW THIS LINE

(Signatures to be obtained at the time of the Test)

S.No.	Particulars	Signature of Candidate	Signature of Incharge	Time	Marks
1.	Physical Fitness Test Marks				
2.	Sports Proficiency Marks				

Note: For the schedule of the above listed test items check the website of the Indira Gandhi Institute of Physical Education & Sports Sciences (www.igipess.du.ac.in) & for any enquiry Email (principal@igipess.du.ac.in).

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E. MEDICAL FITNESS CERTIFICATE FORM FOR ADMISSION TO B.Sc.(PEHE&S) COURSES

1. NAME OF THE COURSE
2. NAME:
3. AGE & GENDER
4. FATHER'S NAME
5. MOTHER'S NAME
6. PULSE:
7. B.P.:
8. WEIGHT:
9. HEIGHT:
10. CHEST CIRCUMFERENCE: NORMAL AND EXPANDED:.....
11. CVS:
12. CHEST:
13. ABDOMEN:
14. EYE: (i) Colour Vision..... (ii) Visual acuity.....
(a) Without Glasses..... (b) With Glasses.....
15. After careful personal Examination of Mr. / Ms.....

I hereby certify that he/she is fit to take Physical Fitness Test of the UG admission test 2019-20 (University of Delhi).

SIGNATURE OF CANDIDATE

SIGNATURE OF MEDICAL OFFICER
(with stamp, Registration Number, Mobile No.)
(Medical Officer should have a minimum of M.B.B.S. Degree)

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F. Components of Entrance Test to B.Sc. (PEHE&S) Course Admission 2019-20

- Weightage for the components of B.Sc. (PEHE&S) (CBCS-Six Semesters) entrance test shall be as follows in Table:

TABLE		
S.No.	Name of the Test	Awards
1.	Written Test	50 Marks
2.	Physical Fitness Test	20 Marks
3.	Sports Proficiency Award	30 Marks

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G. DESCRIPTION OF PHYSICAL FITNESS TEST B.SC. (PE, HE & SPORTS)

The Modified Canadian Physical Fitness Test will be used. A brief description of the test is given below :

Male	Female
(a) 8' Long Jump	(a) 5' Long Jump
(b) Vaulting Horse Jump of 5' height	(b) Vaulting Horse Jump of 4' height
(c) 7 times Crossing Over the width of 4'8" River.	(c) 5 times Crossing Over the Width of 3' 6" River.
(d) Crossing over the Hurdle of 91.4 cms. height.	(d) Crossing over the Hurdle 76.2 cms. height.
(e) Forward Roll on Mat. (one)	(e) Forward Roll on Mat. (one)
(f) Sprinting from the end line after one Forward Roll on Mat to finish line/starting point.	(f) Sprinting from the end line after one Forward Roll on Mat to finish line/starting point.

Note:

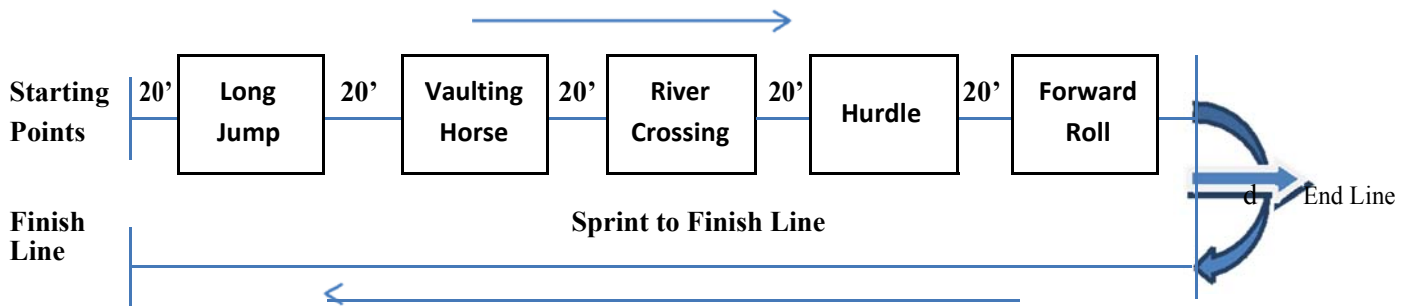
1. Candidate seeking admission to various courses shall be required to complete the physical fitness test as above without any foul irrespective of time limit.
2. However marks will only be awarded to a candidate in accordance with the table-H. In case a Candidate clocks a time which is not mentioned in table H (More than 38 seconds) such candidate will not be awarded any marks for his/her performance. If a candidate clocks 23.15 seconds or less then, 20 marks will be awarded.
3. Maximum of three chances/Trials will be given to each candidate.
4. If a candidate leaves the test incomplete he/she shall be disqualified for that trial/chance.

H. Physical Fitness Test Marking Scheme for B.Sc. (PE,HE&S) 2019-20

Time Taken (in Second)	Score	Time Taken (in Second)	Score	Time Taken (in Second)	Score
38.15	0.00	31.40	9.00	24.65	18.00
38.00	0.20	31.25	9.20	24.50	18.20
37.85	0.40	31.10	9.40	24.35	18.40
37.70	0.60	30.95	9.60	24.20	18.60
37.55	0.80	30.80	9.80	24.05	18.80
37.40	1.00	30.65	10.00	23.90	19.00
37.25	1.20	30.50	10.20	23.75	19.20
37.10	1.40	30.35	10.40	23.60	19.40
36.95	1.60	30.20	10.60	23.45	19.60
36.80	1.80	30.05	10.80	23.30	19.80
36.65	2.00	29.90	11.00	23.15	20.00
36.50	2.20	29.75	11.20		
36.35	2.40	29.60	11.40		
36.20	2.60	29.45	11.60		
36.05	2.80	29.30	11.80		
35.90	3.00	29.15	12.00		
35.75	3.20	29.00	12.20		
35.60	3.40	28.85	12.40		
35.45	3.60	28.70	12.60		
35.30	3.80	28.55	12.80		
35.15	4.00	28.40	13.00		
35.00	4.20	28.25	13.20		
34.85	4.40	28.10	13.40		
34.70	4.60	27.95	13.60		
34.55	4.80	27.80	13.80		
34.40	5.00	27.65	14.00		
34.25	5.20	27.50	14.20		
34.10	5.40	27.35	14.40		
33.95	5.60	27.20	14.60		
33.80	5.80	27.05	14.80		
33.65	6.00	26.90	15.00		
33.50	6.20	26.75	15.20		
33.35	6.40	26.60	15.40		
33.20	6.60	26.45	15.60		
33.05	6.80	26.30	15.80		
32.90	7.00	26.15	16.00		
32.75	7.20	26.00	16.20		
32.60	7.40	25.85	16.40		
32.45	7.60	25.70	16.60		
32.30	7.80	25.55	16.80		
32.15	8.00	25.40	17.00		
32.00	8.20	25.25	17.20		
31.85	8.40	25.10	17.40		
31.70	8.60	24.95	17.60		
31.55	8.80	24.80	17.80		

A Candidate will be awarded marks on the basis of above table. For example, if a candidate clocks 28.10 seconds the marks to be awarded will be 13.40 and so on. However, if a candidate clocks 23.15 seconds and below then he/she will be awarded 20 marks and so on. Further, if a candidate clocks 23.16 seconds & above but below 23.30 seconds he/she will be awarded 19.80 marks.

I. Illustration of Physical Fitness Test for B.Sc. (PE, HE & Sports) 2019-20



The Candidate will sprint after crossing the End Line up to Finish Line/Starting Point							
Course		Long Jump	Vaulting Horse	River Crossing	Hurdles	Forward Roll	Sprint
B.Sc. (PE, HE&S)	MEN	8'	5'	4'8" (7 times)	91.4cms	On mat (one)	Sprint to Finish Line
	WOMEN	5'	4'	3'6" (5 times)	76.2 cms	One mat (one)	

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J. Sports Proficiency Weightage for B.Sc. (PE, HE & S)-2019-20

Max. Marks:30

1. Sports Proficiency Weightage (SPW-1)-International: Represented India in Olympic Games, Asian Games, World Championships, World Cups, Common Wealth Games, Asian Meets, Test Matches in Cricket, Commonwealth Championships, Asian Championship, Asia Cup, SAF Games, Davis Cup, Wimbledon Championship, US, French, Australian Open Tennis Championship, Thomas Cup, Uber Cup, All England Badminton Tournament and International Athletic Permit Meet and any other International tournament/championship approved by IOA.

30 marks

(a) **The performances in SPW-1 as above will only be counted provided a candidate has atleast participated in National Championship organized by respective Federation & duly affiliated to IOA/SGFI. Further, wherever National Championship in a respective Sport was not held/organized, such candidates will also be considered subject to submission of document from respective Federation for non conduct of the National Championship.**

(b) In case any of the championship not mentioned in SPW-1-Category above and if found affiliated to IOA/SGFI will be considered by Admission Committee with due approval from HOD/competent authorities.

2. Sports Proficiency Weightage SPW-2- National : Senior National/Junior National/All India Inter-State/ All India Inter Zonal/National Games/Federation Cup:

1st Position	25 Marks
2nd Position	23 Marks
3rd Position	21 Marks
Participation	10 Marks

(a) **These performances in SPW-2 for position 1st/2nd or 3rd as above will only be awarded provided a candidate has at least secured 1st/2nd or 3rd position in School Game Federation of India competition in respective sport. The participation in SPW-2 will only be awarded if a candidate has participated in respective Sports SGFI competition.**

3. Sports Proficiency Weightage SPW-3: SGFI.

1st Position	20 Marks
2nd Position	18 Marks
3rd Position	16 Marks
Participation	08 Marks

(a) These performances in SPW-3 (regarding the 1st/2nd or 3rd position) will only be awarded provided a candidate has secured 1st/2nd or 3rd position in School Inter Zonal/School Inter District/State Championship, Women National Championship, Rural National Championship/C.B.S.E. National, K.V.S. Nationals/ DAV National Championship in respective sport. But for participation marks i.e. SPW-3 at least 3rd position in School Zonal/School District is required.

J Sports Proficiency Weightage for B.Sc. (PE, HE & S)-2019-20 (Contd.)

- 4. Sports Proficiency Weightage SPW-4-State:** State Championship, Women National Championship, Rural National Championship/C.B.S.E. National, K.V.S. Nationals/DAV National Championship.

1st Position	14 Marks
2nd Position	13 Marks
3rd Position	12 Marks

- (a) These performance in SPW-4 above will only be awarded provided a candidate has secured 1st /2nd or 3rd position in District level, School Zonal, Women State Championship, Rural State Championship, CBSE-Zonal/Regional, KVS Regional/D.A.V. National.**

- 5. Sports Proficiency Weightage SPW-5-:** District Level, School Inter-Zonal/Navodaya/Public School Nationals and Regional's, CBSE Regional District or State level Women Rural competition.

1st Position	06 Marks
2nd Position	05 Marks
3rd Position	04 Marks

- 6. Sports Proficiency Weightage SPW-6-:** Delhi School Zonal/KVS Regional/CBSE Cluster/Navodaya Region/DAV Regional/National/Regional Inter Sainik School Championship.

1st Position	03 Marks
2nd Position	02 Marks
3rd Position	01 Marks

Note:-

- Only last three years participation during school education will be considered for the award of Sports Proficiency Weightage.
- Latest games/sport affiliated to IOA & SGFI will be considered.
- **A maximum of 30 marks can be obtained/awarded to a candidate in Sports Proficiency Award Category.**
- **Only Highest Sports Achievement will be awarded.**