



MANONMANIAM SUNDARANAR UNIVERSITY,
TIRUNELVELI-12

SYLLABUS

UG - COURSES – AFFILIATED COLLEGES

Course Structure for B. Sc. Physical Education

(Choice Based Credit System)

(with effect from the academic year 2023-2024 onwards)



Semester-I				
Part	Subject Status	Subject Title	Subject Code	Credit
I	LANGUAGE I	TAMIL /OTHER LANGUAGES -I		3
II	LANGUAGE II	ENGLISH - I		3
III	CORE	FOUNDATION OF PHYSICAL EDUCATION AND SPORTS		5
III	CORE	PRACTICAL I : MAJOR GAMES AND TRACK & FIELD - I		5
III	AL-IA	ANATOMY AND PHYSIOLOGY		3
III	SEC	KINANTHROPOMETRY		2
IV	FC	GYMNASTICS		2



Total Marks: 100 Internal Exam: 25 marks + External Exam: 75 marks

A. Scheme for internal Assessment:

Maximum marks for written test: **20 marks**

3 internal tests, each of **1 hour** duration shall be conducted every semester.

To the average of the **best two** written examinations must be added the marks scored in. The **assignment** for 5 marks.

The break up for internal assessment shall be:

Written test- 20 marks; Assignment -5 marks Total - 25 marks

B. Scheme of External Examination

3 hrs. examination at the end of the semester

A – Part : 1 mark question two - from each unit

B – Part : 5 marks question one - from each unit

C – Part : 8 marks question one - from each unit

➤ **Conversion of Marks into Grade Points and Letter Grades**

S.No	Marks	Letter Grade	Grade point (GP)	Performance
1	90-100	O	10	Outstanding
2	80-89	A+	9	Excellent
3	70-79	A	8	Very Good
4	60-69	B+	7	Good
5	50-59	B	6	Above Average
6	40-49	C	5	Pass
7	0-39	RA	-	Reappear
8	0	AA	-	Absent

➤ **Cumulative Grade Point Average (CGPA)**

$$CGPA = \frac{\Sigma (GP \times C)}{\Sigma C}$$

- **GP** = Grade point, **C** = Credit
- CGPA is calculated only for Part-III courses
- CGPA for a semester is awarded on cumulative basis

➤ **Classification**

- First Class with Distinction : $CGPA \geq 7.5^*$
- First Class : $CGPA \geq 6.0$
- Second Class : $CGPA \geq 5.0$ and < 6.0
- Third Class : $CGPA < 5.0$



பொதுத்தமிழ் – 1

Unit 1 - மரபுக் கவிதை

1. பெ. சுந்தரனார் - தமிழ்த் தெய்வ வணக்கம்
2. பாரதிதாசன் - சிறுத்தையே வெளியில் வா
3. கவிமணி - புத்தரும் சிறுவனும்
4. முடியரசன்-மொழி உணர்ச்சி
5. கண்ணதாசன் - ஆட்டனத்தி ஆதிமந்தி - ஆதிமந்தி புலம்பல்
6. சுரதா - துறைமுகம் தொகுப்புலிருந்து ஏதேனும் ஒரு கவிதை
7. தமிழ் ஒளி - கடல்

Unit II – புதுக்கவிதை

1. அப்துல் ரகுமான் - வீட்டுக்கொரு மரம் வளர்ப்போம்
2. ஈரோடு தமிழன்பன் - சென்றியு கவிதைகள் (ஏதேனும் ஐந்து கவிதைகள்)
3. வைரமுத்து – பிற்சேர்க்கை
4. மு.மேத்தா – வாழைமரம்
5. அறிவுமதி - வள்ளுவம் பத்து
6. நா. முத்துக்குமார் - ஆனந்த யாழை மீட்டுகிறாய்
7. சுகிர்தராணி - சபிக்கப்பட்ட முத்தம்
8. இளம்பிறை - நீ எழுத மறுக்கும் எனது அழகு

Unit III – சிறுகதைகள்

1. வாய் சொற்கள் - ஜெயகாந்தன் (மாலை மயக்கம் தொகுப்பு)
2. கடிதம் - புதுமைப்பித்தன்
3. கரு - உமாமகேஸ்வரி
4. முன்முடி - தி ஜானகிராமன்
5. சிதறல்கள் - விழி.பா.இதயவேந்தன்
6. காகித உறவு - சு. சமுத்திரம்
7. வீட்டின் மூலையில் சமையல் அறை - அம்பை
8. (மொழிபெயர்ப்புக் கதை) ஆண்டவன் செக்காவ் - நாயக்காரய்ச் சீமாட்டி, சந்தியா பதிப்பகம்

Unit IV - பாடம் சார்ந்த இலக்கிய வரலாறு

Unit V - மொழித்திறன் போட்டி தேர்வு

1. பொருள் பொதிந்த சொற்றோடர் அமைத்தல்
 2. ஓர் எழுத்து ஒரு மொழி
 3. வேற்றுமை உருபுகள்
 4. திணை, பால், எண், இடம்
 5. கலைச்சொல்லாக்கம், மொழிபெயர்ப்பு
- (குறிப்பு: அலகு 4,5 ஆகியன போட்டித் தேர்வு நோக்கில் நடத்தப்பட வேண்டும்)



MALAYALAM – I

PROSE, COMPOSITION AND TRANSLATION

Unit I

This unit focuses on Translation: Word level and syntactic level and also discuss the writing style of Essay. It introduces the proverbs, paraphrasing in Malayalam

Unit II

This unit briefs the importance of Nalukettu in the history of Malayalam literature. The following unit examines the characteristics of the novel chapter ways. Chapter First to 10

Unit III

Remaining Chapters are introduced and discussed.

Unit IV This unit focuses on Marappavakalum Mattu Kadhakalum by Karur. It also introduces the story

Story I Marappavakal- Discussion

Story II Uthuppante Kirnar

Story III Kalchakaram

Story IV Poovamabhazham

Story V Vallakkaran

Story VI Chekuthan

Story VII Mothiram

Unit V Story VIII Safety Pin

Story IX Aranhaanam

Story X Kuta nannakkaanuntoo

Story XI Chudala thengu

Story XII Ampala parmbil

Story XIII Ezhunnallathu Duty

Story XIV Pisachinte Kuppayam

Reading List (Print and Online)

1. Malayala Sahithya Charithram – Dr. K.M.George (Ed.)
2. Cherukadha Innale Innu - M.Achuthan
3. Kadha Thedunna Kadha - N.Prabhakaran
4. M.T. Vakkinte Vismayam – V.R.Sudheesh
5. Kadhayum Kalavum –K.S.Ravikumar
6. Malayala Novalilee Desakaalangal- E. Ramkrishnan
7. Maranunna Malayala Noval- K.P. Appan
8. Andhanaya Daivam- P.K.Rajasekharan
9. Shyalee shilppam- Dr.K.M. Prabhakra Varir
10. Bhasha gadhyam- C.V. Vasudeva Bhattathiri
11. Karur Kadha patanam- M.M.Basheer

Recommended Texts

1. NALUKKETTU (NOVEL) : M.T. VASUDEVAN NAIR
2. MARAPPAVAKALUM MATTU KADHAKALUM (SHORT STORIES): KAROOR



HINDI I

Unit I

Buniyadi Hindi

- Swar
- Vyanjan
- Barah Khadi
- Shabd aur
- Vakya Rachna

Unit II

Hindi Shabdavali

- Rishto ke Naam
- Gharelu padartho ke Naam

Unit III

Vyakaran

- Sadharan Vakya aur Sangya
- Sarvanam
- Visheshan
- Kriya aadi shabdo ka prayog

Unit IV

Chote Gadyansh ka Pathan

- Bacho ki Kahaniya
- Patra-Patrikao mein prakashit Gadyansho ka Pathan

Unit V

Nibandh

- Sant Tiruvalluvar
- E.V.R Thandai Periyar
- Naari Sashaktikaran
- Paryavaran Sanrakshan
- Vibhinna pratiyogi parikshao ke bare mein jaankari dena

Pratiyogi priksa par adharit nibandho dwara bhasha ki kshamta badhane vale prashikshan kary.

Reference Books

1. Hindi ke Avyay Vakyansh – Chaturbhuj Sahay
2. Subodh Hindi Vyakaran – Phoolchand Jain
3. Sankshipt Hindi Vyakaran – Kamta Prasad
4. Vyavaharik Hindi – Nagappa
5. Abhinav Hindi Vyakran – Nagappa
6. Saral Hindi Vyakaran – Shyamchandra Kapur
7. Vyakaran Pradeep – Ramdev
8. Laghu Bal Kathaye – Ramashankar
9. Manoranjak Kahaniya – Premchand
10. CONCISE GRAMMAR OF THE HINDI LANGUAGE - H.C Scholberg
11. Hindi Grammar – Edwin Greaves



Related Online Contents for Hindi (MOOCs, SWAYAM, NPTEL, YouTube, Websites, etc.)

1. fr#oYyqoj%

[https://bharatdiscovery.org/india/%E0%A4%A4%E0%A4%BF%E0%A4%B0%E0%A5%81%E0%A4%B5%E0%A4%B2%E0%A5%8D%E0%A4%B2%E0%A5%81%E0%A4%B5%E0%A4%B0#:~:text=%E0%A4%A4%E0%A4%BF%E0%A4%B0%E0%A5%81%E0%A4%B5%E0%A4%B2%E0%A5%8D%E0%A4%B2%E0%A5%81%E0%A4%B5%E0%A4%B0%20\(%E0%A4%85%E0%A4%82%E0%A4%97%E0%A5%8D%E0%A4%B0%E0%A5%87%E0%A4%9C%E0%A4%BC%E0%A5%80%3A%20Thiruvalluvar\)%20%E0%A4%A6%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%BF%E0%A4%A3,%E0%A4%AA%E0%A4%BF%E0%A4%A4%E0%A4%BE%20%E0%A4%AE%E0%A5%87%E0%A4%82%20%E0%A4%B5%E0%A4%BF%E0%A4%B6%E0%A5%8D%E0%A4%B5%E0%A4%BE%E0%A4%B8%20%E0%A4%B0%E0%A4%96%E0%A4%A4%E0%A5%87%20%E0%A4%A5%E0%A5%87%E0%A5%A4](https://bharatdiscovery.org/india/%E0%A4%A4%E0%A4%BF%E0%A4%B0%E0%A5%81%E0%A4%B5%E0%A4%B2%E0%A5%8D%E0%A4%B2%E0%A5%81%E0%A4%B5%E0%A4%B0#:~:text=%E0%A4%A4%E0%A4%BF%E0%A4%B0%E0%A5%81%E0%A4%B5%E0%A4%B2%E0%A5%8D%E0%A4%B2%E0%A5%81%E0%A4%B5%E0%A4%B0%20(%E0%A4%85%E0%A4%82%E0%A4%97%E0%A5%8D%E0%A4%B0%E0%A5%87%E0%A4%9C%E0%A4%BC%E0%A5%80%3A%20Thiruvalluvar)%20%E0%A4%A6%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%BF%E0%A4%A3,%E0%A4%AA%E0%A4%BF%E0%A4%A4%E0%A4%BE%20%E0%A4%AE%E0%A5%87%E0%A4%82%20%E0%A4%B5%E0%A4%BF%E0%A4%B6%E0%A5%8D%E0%A4%B5%E0%A4%BE%E0%A4%B8%20%E0%A4%B0%E0%A4%96%E0%A4%A4%E0%A5%87%20%E0%A4%A5%E0%A5%87%E0%A5%A4)

2. bZ-os-jkelkeh

[https://hi.wikipedia.org/wiki/%E0%A4%AA%E0%A5%87%E0%A4%B0%E0%A4%BF%E0%A4%AF%E0%A4%BE%E0%A4%B0#:~:text=%E0%A4%87%E0%A4%B0%E0%A5%8B%E0%A4%A1%20%E0%A4%B5%E0%A5%87%E0%A4%82%E0%A4%95%E0%A4%9F%20%E0%A4%A8%E0%A4%BE%E0%A4%AF%E0%A4%95%E0%A4%B0%E0%A4%B0%E0%A4%BE%E0%A4%AE%E0%A4%BE%E0%A4%B8%E0%A4%BE%E0%A4%AE%E0%A5%80%20\(17,%E0%A4%B5%E0%A4%BE%E0%A4%B2%E0%A5%87%20%E0%A4%B9%E0%A4%BF%E0%A4%A8%E0%A5%8D%E0%A4%A6%E0%A5%81%E0%A4%A4%E0%A5%8D%E0%A4%B5%20%E0%A4%95%E0%A4%BE%20%E0%A4%B5%E0%A4%BF%E0%A4%B0%E0%A5%8B%E0%A4%A7%20%E0%A4%A5%E0%A4%BE%E0%A5%A4](https://hi.wikipedia.org/wiki/%E0%A4%AA%E0%A5%87%E0%A4%B0%E0%A4%BF%E0%A4%AF%E0%A4%BE%E0%A4%B0#:~:text=%E0%A4%87%E0%A4%B0%E0%A5%8B%E0%A4%A1%20%E0%A4%B5%E0%A5%87%E0%A4%82%E0%A4%95%E0%A4%9F%20%E0%A4%A8%E0%A4%BE%E0%A4%AF%E0%A4%95%E0%A4%B0%E0%A4%B0%E0%A4%BE%E0%A4%AE%E0%A4%BE%E0%A4%B8%E0%A4%BE%E0%A4%AE%E0%A5%80%20(17,%E0%A4%B5%E0%A4%BE%E0%A4%B2%E0%A5%87%20%E0%A4%B9%E0%A4%BF%E0%A4%A8%E0%A5%8D%E0%A4%A6%E0%A5%81%E0%A4%A4%E0%A5%8D%E0%A4%B5%20%E0%A4%95%E0%A4%BE%20%E0%A4%B5%E0%A4%BF%E0%A4%B0%E0%A5%8B%E0%A4%A7%20%E0%A4%A5%E0%A4%BE%E0%A5%A4)

3. ukjh l"kfDr dj.k%

<https://www.hindikiduniya.com/essay/women-empowermentessayinhindi/#:~:text=%E0%A4%AE%E0%A4%B9%E0%A4%BF%E0%A4%B2%E0%A4%BE%20%E0%A4%B8%E0%A4%B6%E0%A4%95%E0%A5%8D%E0%A4%A4%E0%A4%BF%E0%A4%95%E0%A4%B0%E0%A4%A3%20%E0%A4%95%E0%A5%8D%E0%A4%AF%E0%A4%BE%20%E0%A4%B9%E0%A5%88%20%3F&text=%E0%A4%AE%E0%A4%B9%E0%A4%BF%E0%A4%B2%E0%A4%BE%20%E0%A4%B8%E0%A4%B6%E0%A4%95%E0%A5%8D%E0%A4%A4%E0%A4%BF%E0%A4%95%E0%A4%B0%E0%A4%A3%20%E0%A4%95%E0%A5%8B%20%E0%A4%AC%E0%A5%87%E0%A4%B9%E0%A4%A6%20%E0%A4%86%E0%A4%B8%E0%A4%BE%E0%A4%A8,%E0%A4%B8%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%AE%20%E0%A4%AC%E0%A4%A8%E0%A4%BE%E0%A4%A8%E0%A4%BE%20%E0%A4%AE%E0%A4%B9%E0%A4%BF%E0%A4%B2%E0%A4%BE%20%E0%A4%B8%E0%A4%B6%E0%A4%95%E0%A5%8D%E0%A4%A4%E0%A4%BF%E0%A4%95%E0%A4%B0%E0%A4%A3%20%E0%A4%B9%E0%A5%88%E0%A5%A4>

4. i;kZoj.k laj{k.k%

a. https://hi.wikipedia.org/wiki/%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%BE%E0%A4%B5%E0%A4%B0%E0%A4%A3_%E0%A4%B8%E0%A4%88%E0%A4%B0%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%A3#:~:text=%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%BE%E0%A4%B5%E0%A4%B0%E0%A4%A3%20%E0%A4%B8%E0%A4%82%E0%A4%B0%E0%A4%95%E0%A5%8D%E0%A4%B7%E0%A4%A3%20%E0%A4%95%E0%A4%BE%20%E0%A4%B8%E0%A4%AE%E0%A4%B8%E0%A5%8D%E0%A4%A4%20%E0%A4%AA%E0%A5%8D%E0%A4%B0%E0%A4%BE%E0%A4%A3%E0%A4%BF%E0%A4%AF%E0%A5%8B%E0%A4%82,%E0%A4%AA%E0%A5%83%E0%A4%A5%E0%A5%8D%E0%A4%B5%E0%A5%80%20%E0%A4%B8%E0%A4%AE%E0%A5%8D%E0%A4%AE%E0%A5%87%E0%A4%B2%E0%A4%A8%20%E0%A4%86%E0%A4%AF%E0%A5%8B%E0%A4%9C%E0%A4%BF%E0%A4%A4%20%E0%A4%95%E0%A4%BF%E0%A4%AF%E0%A4%BE%20%E0%A4%97%E0%A4%AF%E0%A4%BE%E0%A5%A4

b. http://gadyakosh.org/gk/%E0%A4%86%E0%A4%88%E0%A4%AF%E0%A5%87!_%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%BE%E0%A4%B5%E0%A4%B0%E0%A4%A3_%E0%A4%AC%E0%A4%9A%E0%A4%BE%E0%A4%8F%E0%A4%81/__%E0%A4%85%E0%A4%A8%E0%A5%8D%E0%A4%A4%E0%A4%B0%E0%A4%BE_%E0%



PART II ENGLISH

Unit 1- Poetry

1. A Patch of Land - Subramania Bharati
2. The Sparrow - Paul Laurence Dunbar
3. A Nation's Strength – Ralph Waldo Emerson
4. Love Cycle - Chinua Achebe

Unit II - Prose

1. JRD - Harish Bhat
2. Us and Them - David Sedaris From Dress Your Family in Corduroy and Denim
3. Uncle Podger Hangs a Picture - Jerome K Jerome

Unit III- Short Stories

1. The Faltering Pendulum- Bhabani Bhattacharya
2. How I Taught my Grandmother to Read- Sudha Murthy
3. The Gold Frame- R.K. Laxman

Unit IV - Language Competency

1. Vocabulary : Synonyms, Antonyms, Word Formation
2. Appropriate use of Articles and Parts of Speech
3. Error correction

Unit V English for Workplace

1. Self - introduction, Greetings
2. Introducing others
3. Listening for General and Specific Information
4. Listening to and Giving Instructions /Directions

Text books (Latest Editions)

1. Steel Hawk and other stories by Bhattacharya, Bhabani, New Delhi: Sahitya Akademi, 1967
2. How I taught my Grandmother to Read and other Stories, Murthy, Sudha, Penguin Books, India, 2004

Web Resources

1. A patch of land by Subramania Bharati translated by Usha Rajagoplan : https://books.google.co.in/books?id=iSHvOmXuvLMC&printsec=frontcover&dq=subramania+bharati+poems&hl=en&newbks=1&newbks_redir=0&source=gb_mobile_search&sa=X&redir_esc=y#v=onepage&q=subramania%20bharati%20poems&f=false
2. The Sparrow by Paul Laurence Dunbar <https://poets.org/poem/sparrow-0>
3. A Nation's Strength by Emerson <https://poets.org/poem/nations-strength>
4. Love cycle by Chinua Achebe : <https://www.best-poems.net/chinuaachebe/love-cycle.html>
5. JRD by Harish Bhat <https://www.tata.com/newsroom/heritage/coffee-tea-jrd-tata-stories>
6. Us and Them by David Sedaris From Dress Your Family in Corduroy and Denim <https://legacy.npr.org/programs/morning/features/2004/jun/sedaris/usandthem.html>
7. Uncle Podger Hangs a Picture: <http://rosyhunt.blogspot.com/2013/01/unclepodger-hangs-picture.html>
8. The Gold Frame: <https://fybaenglish.blogspot.com/2018/12/the-gold-frame-r-klaxman.html>

Reference Books

(Latest Editions, and the style given must be strictly adhered to)

1. English in use - A textbook for College Students (English ,Paper back, - T.Vijay Kumar, KDurga Bhavani, YL Srinivas
2. Practical English Usage - 4th Edition By Michael Swan
3. The Art of Civilized Conversation: A Guide to Expressing Yourself with Style and
4. Grace -Margaret Shepherd, Penny Carter, (Illustrator), Sharon Hogan, 2005.



FOUNDATION OF PHYSICAL EDUCATION AND SPORTS

Unit-I

Meaning and Definition of Education and Physical Education – Need, Nature and Scope of Physical Education – Physical Training and Physical Culture.

Unit-II

Aim and Objectives of Physical Education – Development of Physical , Cognitive, Neuro-muscular, Affective, Social, Emotional, Spiritual and Recreational – Theories of Learning – Laws of Learning.

Unit- III

Scientific basis of Physical Education – Contribution of Allied Sciences – Anatomy, Physiology, Biomechanics, Kinesiology, Sports Medicine, Psychology, Sociology and Computer Science.

Unit-IV

History of Physical Education in Sparta and Athens – Olympic Games: Ancient, Modern – Origin – Organisation and conduct of the game – Olympic Flag, Torch, Oath, Emblem and Motto.

Unit –V

Recent development in India: SAI, NSNIS, SNIPES, LNIPE, Sports Academics – Award and Scholarships: Arjuna Award, Dhronochariya Award, Rajiv Gandhi Khela Ratna Award – International and National Competitions: Asian Games, SAF, SGF, RDS and BDS.

Books for Reference

1. Bucher Charles A., Foundations of Physical Education, St. Louis the C.V. Mosby Company, 1983.
2. Kamlesh M.L., Physical Education : Facts and Foundation, New Delhi, P.B. Publications, 1988.
3. Thirunarayanan, C. and Hariharan, S., Analytical History of Physical Education, Karaikudi, C.T. & S.H., Publications, 1990.
4. Sharma, O.P., History of Physical Education, New Delhi, Khel Shitya Kendra, 1998.
5. Wakharkar D.G., Manual of Physical Education in India, Pearl Publicatons Pvt. Ltd., Bombay, 1967.
6. Wuest, Deborah, A. and Charles A. Bucher, Foundations of Physical Education and Sport, New Delhi: BL. Publication Pvt., Ltd.
7. Wellman and Cowell, Philosophy and Principles of Physical Education, A marvati: Suyog Prakasan. Jackson Sharman/ Modern Principles of Physical Education, New York: A.A.Barnes & Co.
8. Khan, Eraj Ahmed, History of Physical Education, Patna Scientific Book Co.



Major Games & Track and Field – I (Kabaddi, Kho-Kho, Track Events)

Major Games

General and Specific conditioning exercise,
Fundamental Skills
Drills for developing the skills
Team Tactics and Strategy
System of Play
Standardized skill test
Scouting of Performance
Rules and Officiating

Track Events

General and Specific conditioning Exercises
Teaching of Techniques
Practicing the Techniques
Equipment
Scouting of Performance
Rules and Officiating techniques

Books for References:

1. Sharma, A., & Sharma, O.P., (2012). Rules of Games. New Delhi: Sports Publication.
2. Mariayyah, P. (2006). Sports and Games. Coimbatore: Sports Publications. Official rules books of concerned federation/association.
3. Mariayyah .P, Kabaddi, Sports Publications, Raja Street, Coimbatore.
4. Joseph L. Rogers, (2000). USA Track & Field coaching Manual. Champaign, IL: Human Kinetics
5. Sandhu, V. (2006). Teaching & Coaching Athletics. New Delhi: Sports Publication.
6. Sharma, N.P., “Fundamentals of Track and Field”, First Edition, Khel Sahitya Kendra, New Delhi, 2005.
7. Vern, Gambetta. (2007). Athletic Development: The Art & Science of Functional Sports Conditioning. Champaign, IL: Human Kinetics.
8. WA Competition Rules 2021-22 published by World Athletics



ANATOMY AND PHYSIOLOGY

Unit-I

Meaning of Anatomy and Physiology – Need and Scope of Anatomy and Physiology in Physical Education – Cell – Structure and Functions – Tissues – Types and Function-Muscular System – Types of Muscles: Skeletal Muscle, Cardiac Muscle, and smooth muscle.

Unit-II

Skeleton: Meaning and Functions – Bones: Classification and Functions – General Features of Various Bones: Vertebral Column, Pelvic Bone, Radius and Ulna, Scapula, Femur and Bones of Skull – Joints: Definition and Classification of Joints

Unit-III

Nervous System: Neuron – Central Nervous System(CNS): Brain and Spinal Cord– Peripheral Nervous System (PNS): cranial Nerves and Spinal Nerves – Digestive System : Structure & Functions – Digestive Process – Liver, Pancreas – Functions

Unit-IV

Respiratory System – Respiration – Respiratory Track – Alveoli – Lungs: Structure & Functions – Gas Exchange – Vital Capacity.
Circulatory System – Heart: Structure & Functions – Cardiac Cycle, Cardiac Output, Stroke Volume.

Unit -V

Endocrine Glands – Functions of Endocrine Glands: Pituitary, Thyroid, Para-Thyroid, Thymus, Pancreas, Adrenal & Sex – their role, in growth, development and regulations of body functions.

Books for References:

1. Albart. B., (2006). Human Physiology (1st ed.,). Chennai: Sports Publications.
2. Elaine, N., (2010). Essentials of Human Anatomy and Physiology. New Jersey: Pearson Education.
3. Mishra, S. R., (2012). Physiology of Sports and Exercise. New Delhi: Khel Sahitya Kendra.
4. Mishra. S. C., (2005). Physiology in Sports (1st ed.,). New Delhi: Sports Publication.
5. Murugesh. N., (2006). Anatomy, Physiology and Health Education (1st ed.,). Chennai: Sathya Publishers.
6. Sivaramakrishnan. S., (2006). Anatomy and Physiology for Physical Education. Chennai: Friends Publication.



KINANTHROPOMETRY

Unit-I

1. Stadiometer
2. Weighing scales
3. Anthropometric tape
4. Skinfold caliper

Unit-II

1. Anthropometer
2. Large sliding caliper
3. Bone calipers

Unit-III

1. Segmometer
2. Wide-spread caliper
3. Small sliding caliper

Unit-IV

1. Footplate
2. Anthropometric rod
3. Anthropometric box

Unit-V

1. Length measurements – Height, Arm length, Leg length, Hand length, Palm length;
2. Breadth measurements –Forearm girth, Chest girth, waist girth, Hip girth, Thigh girth and Calf girth.
3. Other measurement: BMI & waist circumference

Books for References:

1. Curton, A. C., (1986). Function of the Human Body, London W.B. Saunders Company.
2. Srivastava., (1976). Textbook of practical Physiology. Calcutta, Scientific Book Agency.
3. Kapovich&Sinnser., (1965). Physiology of Muscular Activity. London W.B. Saunders company.
4. Anderson T., & Clurg., (1961). Human Kinetics and Analyzing Body Measurements. London, William Heinmann Medical Books Ltd.
5. Davis, D.V., (1967). Gray's Anatomy. London Longman Green and Company Ltd.
6. Evelyn, P. B., (1967). Anatomy and Physiology for Nurses. London, Faber, and Faber Ltd.
7. Pearce J. W., (1959). Anatomy for Students and Teachers of Physical Education, London, Edward Arnold and Company.
8. Marfell-Jones, M., Stewart, A., & Olds, T. (2006). Kinanthropometry IX: Proceedings of the 9th International Conference of the International Society for the Advancement of Kinanthropometry. Routledge.
9. The International Society for the Advancement of Kinanthropometry (2010) Retrieved January 20, 2011 from <http://www.isakonline.com/>



GYMNASTICS

Unit I - Floor Exercises

1. Forward Roll,
2. Backward Roll,
3. Handstand Forward Roll,
4. Jump Forward to Roll Forward,
5. Head Spring,
6. Hand Spring,
7. Cart Wheel,
8. Round Off

Unit II - Pommel Horse

1. Supports, (Front, Rear, Straddle, Split, Feint)
2. Single leg Circle Clockwise (Right leg and Left leg)
3. Single leg Circle Anti Clockwise (Right leg and Left leg)
4. Double leg Circle,
5. Scissors

Unit III - Parallel Bar

- Perfect Swing, Straddle Seat, L-Support, Forward Roll, Backward Roll, Shoulder Stand, Dismount

Unit IV - Horizontal Bar

- Perfect Swing, Free Hip Circle, Mill Circle Forward, Mill circle Backward, Dismount

Unit V - Roman Rings

- Perfect Swing, Invested Hang, Rear Hang, Upstart L-Support, Shoulder Stand, Dismount

Books for References:

1. Cooper, P., & Trnka, M. (1982). Teaching gymnastic skills to men and women. Surjeet.
2. Elango, M., Kandasamy, M., & Sivagnanam, P., (2007) Basic Gymnastics. Tirunelveli: Krishna Publications.
3. Modak., & Pintum., (1996). Gymnastics: A Scientific Approach. Pilani:Runthala
4. Publisher's and Printers.
5. Peter, A., (1982). Skills and Tactics of Gymnastics. Hong Kong: Marshall Cavendish, Ltd.

