

**Syllabus for Ph.D. entrance test (PET)**  
**Section B subject aptitude**  
**Subject: Education**

**Objectives:**

To enable the students to

1. Co relate Philosophical and Sociological perspective of education
2. Understand the psychological perspective of education
3. Apply theories of learning in classroom situations.
4. Identify strategies for enhancing teacher effectiveness.
5. Understand the perspective of teacher education.
6. Explain the concept & nature of research in education.
7. Explain the terms associated with research.
8. Understand the broad canvas of educational research.

**Unit 1: Philosophical Bases of Education**

- Idealism, Realism, Naturalism, Pragmatism, Marxism with special reference to the concepts of knowledge, reality and values their educational implications for aims, contents and methods of education
- Modern concept of Philosophy – Logical Analysis, Logical Empiricism and Positive relativism
- Epistemology and Education: Nature and types of knowledge, Methods of acquiring valid knowledge with special reference to Analytical Philosophy, Dialectic approach, Scientific inquiry, Yoga
- Axiology and Education: Concept of Value, Relativity of values
- Indian schools of thoughts: Vedic, Buddhist, and Islamic period
- schools of thoughts: Humanism, Existentialism, Essentialism, Progressivism

**Unit 2: Sociological Bases of Education**

- Theoretical perspectives to study society: i) Functional ii) Conflict iii) Symbolic interactionism and its significance to education
- Inclusiveness in Education : Constitutional Provisions for protective discrimination , social equity and Equality of Educational opportunities.
- Education for Socially and Economically Disadvantaged sections of Society , Education of SC , ST , OBC , Women, Rural population and its Challenges
- Concept of Modernization: individual and social modernity, Role of education in modernization .
- Post modernism and its educational implication. Views of Jean François Lyotard, Michel Foucault, Jacques Derrida on post modernism,
- Gender ideology in Society: Meaning, Role of religion, constitution and law in gender ideology
- Gender differentiation, gender stereotyping gender inequality in the society
- Women empowerment: concept, aspects of empowerment , Role of education in empowerment
- Multicultural education, Media awareness, RTE-2009

**Unit 3: Advanced Educational Psychology**

- a. **Learning styles:** Kolb's Learning style, Honey & Mumford's learning styles
  - Cognitive development : Concept , Piagetian Theory of Cognitive Development , Different Stages of Piagetian Theory and it's Education Implications

- Meta-cognition: Meaning, Difference between cognition and meta-cognition, Models of meta-cognition by Falvell's and Brown's.
- Theories of Teaching/ Learning : Tolmans, Gagne, Bandura, Hull, Kurt Levin, Brunner, Ausubel's, Hebb's, Roger's,
- b. **Personality theories** : Type, trait, psychoanalytical, and humanistic
  - defense mechanism
  - Approaches of personality ,personality test
- c. **Theories of Intelligence**: one factor, two factor, Multi factor, Group Factor
  - Multiple Intelligence, Emotional Intelligence, Adversity Quotient, Spiritual intelligence

#### **Unit 4 Curriculum Development**

- a. **Nature ,Principles and Determinants of Curriculum**
  - Components of Curriculum: Objectives, content, transaction mode and evaluation
  - Philosophical and ideological basis of curriculum
  - Theories of curriculum development.
- b. **Approaches and types to Curriculum Development**
  - Subject centred, Core curriculum, Learner centred , Community centred.
  - Curriculum Frameworks of School Education and Teacher Education
  - Humanistic Curriculum: characteristics, purpose, role of the teacher, psychological basis of humanistic curriculum
- c. **Models of Curriculum Development**
  - Tylers-1949 model, Hilda Taba 1962 model, Nicholls and Nicholls-1972 model, Willes and Bondi-1989 model, Need assessment model, Futuristic model, Vocational/Training model

#### **Unit 5 Teacher Education-**

- National Curriculum Framework (NCFTE) -2009 as given by National Council of Teacher Education (NCTE)
- Difference between andragogy and pedagogy
- Reflective models and practices in teacher education
- Profession- Concept, need and components of teacher effectiveness
- Strategies for enhancing teacher effectiveness
- Current trends and procedures in evaluating teacher effectiveness
- Use of sign system, category system, portfolio assessment, academic performance indicators in teacher effectiveness.

#### **Unit 6 ICT Supported Teaching Learning Strategies**

- Computer aided learning, E-Learning and Web base learning.
- Co-operative and Collaborative Learning
- Project based Learning
- Communication Tools - Mobile, e-mail, chat Online Conferencing, Blog, Wiki, Internet forum, News Groups, Different mobile app group, Social Networking.
- Educational media, Role of media in instruction, Instructional media, message and methods
- Computerised multimedia, Designing of instructional media

#### **Unit 7 Guidance and Counselling**

- Counselling process, Counselling approaches – directive, non-directive
- Group counselling vs. Individual counselling, Counselling for adjustment
- Activities of Group guidance, Procedure and techniques of group guidance

- Eclectic Counselling service and Individual inventory service- Testing Service.
- Information orientation service, placement service and follow up program
- Use of tests in guidance and counselling and Communication of test results as relevant in the context of guidance program
- Principles of mental hygiene and their implication for effective adjustment.
- Mental health and development of integrated personality.
- Learning disability concept , types, prevalence, characteristics, teaching strategies.
- Developmental disability , concept , types, prevalence . strategies

#### **Unit 8 : Research Methodology & Statistics In Education -**

- Introduction to research in education: - Importance of review of related literature & Online, offline references
- Different terms: Objectives, Assumptions, Hypothesis, Variables-, Operational definitions, Limitations & Delimitations
- Types of Research: Fundamental, Applied,
- Approaches to research: Qualitative, Quantitative and Mixed method .
  - Qualitative approaches to research in education: historical. Philosophical, case study
  - Quantitative approaches to research in education: Descriptive Research, Ex-post facto Research, Laboratory /field Experiment,
- Ethical consideration in research
- Research Methods : Types ( Steps, methods/designs , strengths and weaknesses)
- variables and types of variables
- Techniques of data collection , tools of data collection
- Reliability & validity of tools & techniques.
- Sampling: Sample & population, sampling methods, Probability, non probability, sampling error,
- Data analysis: i) Qualitative ii) Quantitative, Descriptive and Inferential analysis\
- Testing of hypothesis: one and two tailed tests, Type I and Type II errors, Standard error, Confidence limits
- Parametric and Non Parametric test

#### **Reference Books:**

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*Physical Education*

**Ph. D. PROGRAMME ENTRANCE TEST  
(P.E.T.)  
CURRICULUM**

**With Effect From:- 2020-2021**

# **Content**

- 1. History and Principles of Physical Education**
- 2. Anatomy and Physiology**
- 3. Health Education and Environmental Studies**
- 4. Olympic Movement**
- 5. Officiating and Coaching**
- 6. Yoga Education**
- 7. Educational Technology and Methods of Teaching in Physical Education**
- 8. Sports Training and Coaching**
- 9. Organization and Administration**
- 10. Sports Nutrition and Weight Management**
- 11. Computer Applications in Physical Education**
- 12. Sports Psychology and Sociology**
- 13. Sports Medicine, Physiotherapy and Rehabilitation**
- 14. Test, Measurement and Evaluation in Physical Education**
- 15. Kinesiology and Biomechanics**
- 16. Research and Statistics in Physical Education**
- 17. Theory of sports and game**
- 18. Sports Management**
- 19. Applied Statistics in Physical Education and sports**
- 20. Doping**

## HISTORY AND PRINCIPLES OF PHYSICALEDUCATION

### Unit – 1: Introduction

- Meaning, Definition and Scope of Physical Education ○ Aims and Objective of Physical Education
- Importance of Physical Education in present era. ○ Misconceptions about Physical Education.
- Relationship of Physical Education with General Education.○ Physical Education as an Art and Science.

### Unit- 2 – Historical Development of Physical Education in India

- Indus Valley Civilization Period. (3250 BC–2500 BC) ○ Vedic Period (2500 BC–600 BC)
- Early Hindu Period (600 BC–320 AD) and Later Hindu Period (320 AD–1000 AD) ○ Medieval Period (1000 AD–1757 AD)
- ✚ British Period (Before 1947)
- ✚ Physical Education in India (After 1947)
- Contribution of Akhadas and Vyayamshals ○ Y.M.C.A. and its contributions.

### Unit-3 - Principles of Physical Education

#### ✚ Biological

Growth and development  
Age and gender characteristics  
Body Types  
Anthropometric differences

#### ✚ Psychological

Learning types, learning curve  
Laws and principles of learning  
Attitude, interest, cognition, emotions and sentiments

#### ✚ Sociological

Society and culture  
Social acceptance and recognition  
Leadership  
Social integration and cohesiveness

### References:

- Bucher, C. A. (n.d.) *Foundation of physical education*. St. Louis: The C.V. Mosby Co.
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## ANATOMY AND PHYSIOLOGY

### UNIT-I

- Brief Introduction of Anatomy and physiology in the field of Physical Education. ○ Introduction of Cell and Tissue.
- ☞ The arrangement of the skeleton – Function - of the skeleton – Ribs and Vertebral column and the extremities – joints of the body and their types
- Gender differences in the skeleton. ○ Types of muscles.

### UNIT-II

- ☞ Blood and circulatory system: Constituents of blood and their function – Blood groups and blood transfusion, clotting of blood, the structure of the heart-properties of the heart muscle, circulation of blood, cardiac cycle, blood pressure, Lymph and Lymphatic circulation. Cardiac output.
- ☞ The Respiratory system: The Respiratory passage – the lungs and their structure and exchange of gases in the lungs, mechanism of respiration (internal and external respiration) lung capacity, tidal volume.
- ☞ The Digestive system: structure and functions of the digestive system, Digestive organs, Metabolism,
- ☞ The Excretory system: Structure and functions of the kidneys and the skin.
- ☞ The Endocrine glands: Functions of glands pituitary, Thyroid, Parathyroid. Adrenal, Pancreatic and the sex glands.
- ☞ Nervous systems: Function of the Autonomic nervous system and Central nervous system. Reflex Action,
- ☞ Sense organs: A brief account of the structure and functions of the Eye and Ear.

### UNIT-III

- Definition of physiology and its importance in the field of physical education and sports. ○ Structure, Composition, Properties and functions of skeletal muscles.
- Nerve control of muscular activity: ○ Neuromuscular junction
- Transmission of nerve impulse across it. ○ Fuel for muscular activity
- ☞ Role of oxygen- physical training, oxygen debt, second wind, vital capacity.

### UNIT-IV

- Effect of exercise and training on cardiovascular system. ○ Effect of exercise and training on respiratory system.
- ☞ Effect of exercise and training on muscular system
- ☞ Physiological concept of physical fitness, warming up, conditioning and fatigue. ○ Basic concept of balanced diet–Diet before, during and after competition.

### **References:**

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- Singh, S. (1979). *Anatomy of physiology and health education*. Ropar: Jeet Publications.

## HEALTH EDUCATION AND ENVIRONMENTAL STUDIES

### Unit – I Health Education

- य Concept, Dimensions, Spectrum and Determinants of Health
- य Definition of Health, Health Education, Health Instruction, Health Supervision
- Aim, objective and Principles of Health Education
- य Health Service and guidance instruction in personal hygiene

### Unit – II Health Problems in India

- य Communicable and Non Communicable Diseases
- य Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive Population,
- य Personal and Environmental Hygiene for schools
- य Objective of school health service, Role of health education in schools
- य Health Services – Care of skin, Nails, Eye health service, Nutritional service, Health appraisal, Health record, Healthful school environment, first- aid and emergency care etc.

### Unit – III Environmental Science

- य Definition, Scope, Need and Importance of environmental studies.
- Concept of environmental education, Historical background of environmental education,
- य Celebration of various days in relation with environment.
- य Plastic recycling & probation of plastic bag / cover.
- य Role of school in environmental conservation and sustainable development.

### Unit – IV Natural Resources and related environmental issues:

- य Water resources, food resources and Land resources
- य Definition, effects and control measures of:
- य Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution
- य Management of environment and Govt. policies , Role of pollution control board.

### References:

- Agrawal, K.C. (2001). *Environmental biology*. Bikaner: Nidhi publishers Ltd.
- Frank, H. & Walter, H., (1976). *Turners school health education*. Saint Louis: The C.V. Mosby Company.
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- Odum, E.P. (1971). *Fundamental of ecology*. U.S.A.: W.B. Saunders Co.

## OLYMPIC MOVEMENT

### Unit – I Origin of Olympic Movement

- Philosophy of Olympic movement
- ଅ The early history of the Olympic movement
- The significant stages in the development of the modern Olympic movement
- ଅ Educational and cultural values of Olympic movement

### Unit – II Modern Olympic Games

- Significance of Olympic Ideals, Olympic Rings, Olympic Flag ○ Olympic Protocol for member countries
- Olympic Code of Ethics ○ Olympism in action
- ଅ Sports for All

### Unit – III Different Olympic Games

- ଅ Para Olympic Games
- ଅ Summer Olympics
- ଅ Winter Olympics
- ଅ Youth Olympic Games

### Unit – IV Committees of Olympic Games

- ଅ International Olympic Committee - Structure and Functions
- ଅ National Olympic committees and their role in Olympic movement
- ଅ Olympic commission and their functions
- ଅ Olympic medal winners of India

### Reference:

- Osborne, M. P. (2004). *Magic tree house fact tracker: ancient greece and the olympics: a nonfiction companion to magic tree house: hour of the Olympics*. New York: Random House Books for Young Readers.
- Burbank, J. M., Andranovich, G. D. & Heying Boulder, C. H. (2001). *Olympic dreams: the impact of mega-events on local politics*: Lynne Rienner
- Durge, R.R., Joshi, A.R. (2015) *Olympic Movement* : Nagpur : Amit Brothers Publications



## OFFICIATING AND COACHING

### Unit- I: Introduction of Officiating and coaching

- ☞ Concept of officiating and coaching
- ☞ Importance and principles of officiating
- Relation of official and coach with management, players and spectators ○
- Measures of improving the standards of officiating and coaching

### Unit- II: Coach as a Mentor

- Duties of coach in general, pre, during and post game.
- ☞ Philosophy of coaching
- Responsibilities of a coach on and off the field
- Psychology of competition and coaching

### Unit- III: Duties of Official

- Duties of official in general, pre, during and post game. ○
- Philosophy of officiating
- Mechanics of officiating—position, singles and movement etc. ○ Ethics of officiating

### Unit- IV: Qualities and Qualifications of Coach and Official

- Qualities and qualification of coach and official
- ☞ General rules of games and sports
- ☞ Eligibility rules of intercollegiate and inter-university tournaments, preparation of TA, DA bills
- ☞ Integrity and values of sports

### Reference Books:

- Bunn, J. W. (1968). *The art of officiating sports*. Englewood cliffs N.J. Prentice Hall. Bunn, J. W. (1972). *Scientific principles of coaching* Englewood cliffs N. J. Prentice Hall. Dyson, G. H. (1963). *The mechanics of athletics*. London: University of London Press Ltd. Dyson, G. H. (1963). *The mechanics of Athletics*. London: University of London Press Ltd. Lawther, J.D. (1965). *Psychology of coaching*. New York: Pre. Hall. Singer, R. N. (1972). *Coaching, athletic & psychology*. New York: M.C. Graw Hill.

## YOGA EDUCATION

### Unit – I: Introduction

- Meaning and Definition of Yoga ○
- Aims and Objectives of Yoga
- य Yoga in Early Upanisads
- य The Yoga Sutra: General Consideration
- य Need and Importance of Yoga in Physical Education and Sports

### Unit - II: Foundation of Yoga

- य The Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi
- य Yoga in the Bhagavadgita - Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga

### Unit - III Asanas

- य Effect of Asanas and Pranayama on various system of the body
- Classification of asanas with special reference to physical education and sports
- य Influences of relaxative, meditative posture on various system of the body
- Types of Bandhas and mudras
- य Type of kriyas

### Unit – IV Yoga Education

- य Basic, applied and action research in Yoga
- Difference between yogic practices and physical exercises ○
- Yoga education centers in India and abroad
- य Competitions in Yogasanas

### References:

- Brown, F. Y.(2000). *How to use yoga*. Delhi: Sports Publication.
- Gharote, M. L. & Ganguly, H. (1988). *Teaching methods for yogic practices*. Lonawala: Kaixydhmoe.
- Rajjan, S. M. (1985). *Yoga strengthening of relaxation for sports man*. New Delhi: Allied Publishers.
- Shankar, G.(1998). *Holistic approach of yoga*. New Delhi: Aditya Publishers.
- Shekar, K. C. (2003). *Yoga for health*. Delhi: Khel Sahitya Kendra.

## EDUCATIONAL TECHNOLOGY AND METHODS OF TEACHING IN PHYSICAL EDUCATION

### Unit – I Introduction

- Education and Education Technology- Meaning and Definitions
- Types of Education- Formal, Informal and Non- Formal education.
- Educative Process
- ✎ Importance of Devices and Methods of Teaching.

### Unit – II Teaching Technique

- ✎ Teaching Technique – Lecture method, Command method, Demonstration method, Imitation method, project method etc.
- ✎ Teaching Procedure – Whole method, whole – part – whole method, part – whole method.
- Presentation Technique–Personal and technical preparation
- Command- Meaning, Types and its uses in different situations.

### Unit – III Teaching Aids

- ✎ Teaching Aids–Meaning, Importance and its criteria for selecting teaching aids.
- ✎ Teaching aids – Audio aids, Visual aids, Audio – visual aids, Verbal, Chalk board, Charts, Model, Slide projector, Motion picture etc
- Team Teaching–Meaning, Principles and advantage of team teaching.
- Difference between Teaching Methods and Teaching Aid.

### Reference:

- Bhardwaj, A. (2003). *New media of educational planning*. New Delhi: Sarup of Sons. Bhatia, & Bhatia, (1959). *The principles and methods of teaching*. New Delhi: Doaba House.
- Budhe, A. (2013) *Educational Methodology*. Delhi; Sports Publications.
- Kochar, S.K. (1982). *Methods and techniques of teaching*. New Delhi: Sterling Publishers Pvt. Ltd.
- Kanwar, R.C. (2008) *Methods in Physical Education*. Nagpur: Amit Brothers Publications
- Kavishwar, D.P. *Methods in Physical Education*. Nagpur; S.M. Publisher
- Sampath, K., Pannirselvam, A. & Santhanam, S. (1981). *Introduction to educational technology*. New Delhi: Sterling Publishers Pvt. Ltd.
- Walia, J.S. (1999). *Principles and methods of education*. Jullandhar: Paul Publishers.

## 8

### Sports Training and Coaching

#### Unit – I Introduction to Sports Training

- अ. Meaning and Definition of Sports Training
- अ. Aim and Objective of Sports Training
- अ. Principles of Sports Training
- अ. System of Sports Training – Basic Performance, Good Performance and High Performance Training

#### Unit – II Training Components

- Strength–Mean and Methods of Strength Development
- Speed–Mean and Methods of Speed Development
- अ. Endurance - Mean and Methods of Endurance Development
- Coordination–Mean and Methods of coordination Development
- Flexibility–Mean and Methods of Flexibility Development

#### Unit – III Training Process

- Training Load- Definition and Types of Training Load
- Principles of Intensity and Volume of stimulus
- Technical Training–Meaning and Methods of Technique Training
- Tactical Training–Meaning and Methods of Tactical Training

#### Unit – IV Training programming and planning

- अ. Periodization–Meaning and types of Periodization
- Aim and Content of Periods–Preparatory, Competition, Transitional etc.
- Planning–Training session
- अ. Talent Identification and Development

#### Unit – V SPORTS COACHING

- 1 Aims, Objectives and specifications of coaching sports, skills and techniques.
- 2 Different methods of coaching sports skills.
- 3 Class organization
- 4 Stages of skill teaching
- 5 Coaching aids and devices : Charts, Models, Film-strips, Posters, Motion Films, Gadgets, Flannelography, Epidiascope, Overhead Projector
- 6 Principles of the selection and use of A.V. aids in coaching sports skills.
- 7 Lead up games : Need and importance
- 8 Preparation of sports coaching lesson
  - अ. Various parts of lesson
  - अ. Basic requirement for the lesson

## **Books recommended**

### **Reference:**

- Dick, W. F. (1980). *Sports training principles*. London: Lepus Books.
- Harre, D. (1982). *Principles of sports training*. Berlin: Sporulated.
- Jensen, R. C. & Fisher, A. G. (1979). *Scientific basis of athletic conditioning*. Philadelphia: Lea and Fibiger, 2<sup>nd</sup> Edn.
- Kanwar, R. C. (1999) *Scientific Methods of Training and Coaching*. Nagpur: Amit Brothers Publications
- Matvyew, L. P. (1981). *Fundamental of sports training*. Moscow: Progress Publishers.
- Singh, H. (1984). *Sports training, general theory and methods*. Patials: NSNIS. Uppal,
- A. K., (1999). *Sports Training*. New Delhi: Friends Publication.

Bounder, J. B. : How to be a Successful Coach

Geoffrey Dyson : The Mechanics of Athletics

John Bunn : Scientific Principles of Coaching

J. P. Thomas : Physical Education Lessons

Kanwar R. C. (2008) *Sports Coaching* Amit Brothers Publications Nagpur

Kozman, Gassiy Jakson : *Methods in Physical Education*.

Lawther, J. D. : *Psychology of Coaching*

## ORGANIZATION AND ADMINISTRATION IN PHYSICAL EDUCATION

### Unit -I: Organization and administration

- य Meaning and importance of Organization and Administration in physical education
  - Qualification and Responsibilities of Physical Education teacher and pupil leader
  - Planning and their basic principles,
- य Program planning: Meaning, Importance, Principles of program planning in physical education.
- य Functions of Planning, organizing, staffing, directing, communicating, co-ordination, controlling, evaluating and innovating.

### Unit- II: Budget

- य Budget: Meaning, Importance of Budget making,
- य Criteria of a good Budget, Sources of Income, Expenditure, Preparation of Budget.

### Unit-III: Facilities, & Time-Table Management

- Facilities and equipment management: Types of facilities Infrastructure-indoor, out door.
- Care of school building, Gymnasium, swimming pool, Play fields, Play grounds
- य Equipment: Need, importance, purchase, care and maintenance.
- य Time Table Management: Meaning, Need, Importance and Factor affecting time table.

### Unit-IV: Competition Organization

- य Importance of Tournament,
- य Types of Tournament and its organization structure - Knock-out Tournaments, League or Round Robin Tournaments, Combination Tournament and challenge Tournament.
- य Organization structure of Athletic Meet
- य Sports Event Intramurals & Extramural Tournament planning

### References:

- Broyles, F. J. & Rober, H. D. (1979). *Administration of sports, Athletic programme: A Managerial Approach*. New York: Prentice hall Inc.
- Bucher, C. A. (1983). *Administration of Physical Education and Athletic programme*. St. Louis: The C.V. Mosby Co.
- Kavishwar, D.P. Fundamentals of Track and Field. Nagpur; S.M. Publisher
- Kozman, H.C. Cassidy, R. & Jackson, C. (1960). *Methods in Physical Education*. London: W.B. Saunders Co.
- Pandy, L.K. (1977). *Methods in Physical Education*. Delhi: Metropolitan Book Depo.

- Sharma, V.M. &Tiwari, R.H.: (1979). *Teaching Methods in Physical Education*.Amaravati: Shakti Publication.**
- Kanwar, R.C. (1995) Organisation, Administration and Sports Management. Nagpur: Amit Brothers Publications**
- Budhe, A. (2013) Organisation, Administration and Supervision in Physical Education.Delhi; Sports Publication.**
- Thomas, J. P.(1967). *Organization & administration of Physical Education*. Madras: Gyanodayal Press.**
- Tirunarayanan, C. &Hariharan, S. (1969). *Methods in Physical Education*.Karaikudi: South India Press.**
- Voltmer, E. F. &Esslinger, A. A. (1979).*The organization and administration of Physical Education*.New York: Prentice Hall Inc.**

## SPORTS NUTRITION AND WEIGHT MANAGEMENT

## Unit – I Introduction to Sports Nutrition

- Meaning and Definition of Sports

- Nutrition ○ Basic Nutrition guidelines

- य Role of nutrition in sports

- य Factor to consider for developing nutrition plan

## Unit – II Nutrients: Ingestion to energy metabolism

- Carbohydrates, Protein, Fat—Meaning, classification and its

- function ○ Role of carbohydrates, Fat and protein during exercise

- य Vitamins, Minerals, Water—Meaning, classification and its function

- य Role of hydration during exercise, water balance, Nutrition – daily caloric requirement and expenditure.

## Unit – III Nutrition and Weight Management

- य Meaning of weight management Concept of weight management in modern era Factor affecting weight management and values of weight management

- य Concept of BMI (Body mass index), Obesity and its hazard, Myth of Spot reduction, Dieting versus exercise for weight control, Common Myths about Weight Loss

- य Obesity—Definition, meaning and types of obesity,

- य Health Risks Associated with Obesity, Obesity - Causes and Solutions for Overcoming Obesity.

## Unit – IV Steps of planning of Weight Management

- Nutrition—Daily calorie intake and expenditure, Determination of desirable body weight ○ Balanced diet for Indian School Children, Maintaining a Healthy Lifestyle

- य Weight management program for sporty child, Role of diet and exercise in weight management, Design diet plan and exercise schedule for weight gain and loss

References:

Bessesen, D. H. (2008). Update on obesity. *J Clin Endocrinol Metab.* 93(6), 2027-2034.

Butryn, M.L., Phelan, S., & Hill, J. O. (2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. *Obesity (Silver Spring)*. 15(12), 3091-3096.

Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a metaanalysis. *Am J Obstet Gynecol*, 197(3), 223-228.

DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. *N Engl J Med*, 356(21), 2176-2183.  
Dixon, J.B., O'Brien, P.E., Playfair, J. (n.d.). Adjustable gastric banding and conventiona



therapy for type 2 diabetes: a randomized controlled trial. *JAMA*. 299(3), 316-323.

**Unit – I: Introduction to Computer**

- य Meaning, need and importance of information and communication technology (ICT).  
Application of Computers in Physical Education
- य Components of computer, input and output device
- य Application software used in Physical Education and sports

**Unit – II: MS Word**

- य Introduction to MS Word
- Creating, saving and opening a document ○  
Formatting Editing features Drawing table ,
- य page setup, paragraph alignment, spelling and grammar check printing option, inserting  
page number, graph, footnote and notes

**Unit – III: MS Excel**

- य Introduction to MS Excel
- Creating, saving and opening  
spreadsheet ○ creating formulas
- य Format and editing features adjusting columns width and row height understanding  
charts.

**Unit – IV: MS Power Point**

- य Introduction to MS Power Point
- य Creating, saving and opening a ppt. file
- format and editing features slide show , design , inserting slide  
number ○ picture , graph , table
- य Preparation of Power point presentations

**Referances:**

- Irtegov, D. (2004). *Operating system fundamentals*. Firewall Media.
- Marilyn, M.& Roberta, B.(n.d.). *Computers in your future*. 2nd edition, India: Prentice Hall.
- Milke, M.(2007). *Absolute beginner's guide to computer basics*. Pearson Education
- Asia.Sinha, P. K. & Sinha, P. (n.d.). *Computer fundamentals*. 4th edition, BPB Publication.

## SPORTS PSYCHOLOGY AND SOCIOLOGY

## Unit -I: introduction

- Meaning, Importance and scope of Educational and Sports Psychology
- General characteristics of Various Stages of growth and development
- ▣ Types and nature of individual differences; Factors responsible -Heredity And environment
- ▣ Psycho-sociological aspects of Human behavior in relation to physical education and sports

## Unit-II: Sports Psychology

- Nature of learning, theories of learning, Laws of learning, ○ Plateau in Learning; & transfer of training
- Meaning and definition of personality, characteristics of personality, ○ Dimension of personality, Personality and Sports performance
- ▣ Nature of motivation: Factors influencing motivation; Motivation and techniques and its impact on sports performance.
- Mental Preparation Strategies: Attention focus, Self- talk, Relaxation, Imaginary.
- Aggression and Sports, Meaning and nature of anxiety, Kinds of anxiety
- ▣ Meaning and nature of stress; Types of stress, Anxiety, Stress, Arousal and their effects on sports performance

## Unit-III: Relation between Social Science and Physical Education.

- Orthodoxy, customs, Tradition and Physical Education.
- ▣ Festivals and Physical Education.
- ▣ Socialization through Physical Education.
- ▣ Social Group life, Social conglomeration and Social group, Primary group and Remote group.

## Unit- IV Culture : Meaning and

- Importance. ○ Features of culture,
- ▣ Importance of culture.
- ▣ Effects of culture on people life style.
- ▣ Different methods of studying Observation/ Inspection method, Questionnaire method, Interview method

## References:

- Ball, D. W. & Loy, J. W. (1975). *Sport and social order; Contribution to the sociology of sport*. London: Addison Wesley Publishing Co., Inc.
- Blair, J. & Simpson, R. (1962). *Educational psychology*, New York: McMillan Co. Cratty,
- B. J. (1968). *Psychology and physical activity*. Eaglewood Cliffs. Prentice Hall.

**Kamlesh, M.L. (1998). *Psychology in physical education and sport*. New Delhi: Metropolitan Book Co.**

**Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1978). *Sport and social system*. London: Addison Wesley Publishing Company Inc.**

**Kanwar, R.C. (2014) *Sports Psychology*. Nagpur: Amit Brothers Publications**

**Budhe, A., Agrawal, K (2013) *Educational and Sports Psychology*. Delhi; Sports Publications**

**Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1981). *Sports culture and society*. Philadelphia: Lea & Febiger.**

**Mathur, S.S., (1962). *Educational psychology*. Agra. Vinod Pustak Mandir. Skinner,**

**C. E., (1984.). *Education psychology*. New Delhi: Prentice Hall of India.**

**William, F. O. & Meyer, F. N. (1979). *A handbook of sociology*. New Delhi: Eurasia Publishing House Pvt Ltd.**

## SPORTS MEDICINE, PHYSIOTHERAPY AND REHABILITATION

### Unit-I: - Sports Medicine:

- ☞ Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance.
- ☞ Athletes Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches.
- Need and Importance of the study of sports injuries in the field of Physical Education ○
- Prevention of injuries in sports—Common sports injuries—Diagnosis—
- First Aid - Treatment - Laceration—Blisters —Contusion - Strain —Sprain —Fracture —
- Dislocation and Cramps – Bandages – Types of Bandages – trapping and supports.

### Unit-II: Physiotherapy

- ☞ Definition – Guiding principles of physiotherapy, Importance of physiotherapy, Introduction and demonstration of treatments - Electrotherapy – infrared rays – Ultraviolet rays –short wave diathermy – ultrasonic rays.

### Unit-III: Hydrotherapy:

- ☞ Introduction and demonstration of treatments of Cry therapy, Thermo therapy, Contrast Bath, Whirlpool Bath – Steam Bath – Sauna Bath – Hot Water Fomentation – Massage: History of Massage – Classification of Manipulation (Swedish System) physiological Effect of Massage.

### Unit-IV: Therapeutic Exercise:

- ☞ Definition and Scope – Principles of Therapeutic Exercise – Classification, Effects and uses of Therapeutic exercise – passive Movements (Relaxed, Forced and passive - stretching) – active movements (concentric, Eccentric and static) application of the therapeutic exercise: Free Mobility Exercise – Shoulder, Elbow – Wrist and Finger Joints – Hips, Knee, ankle and Foot joints – Trunk. Head and Neck exercises.

### References:

- Christine, M. D., (1999). *Physiology of sports and exercise*. USA: Human Kinetics.
- Conley, M. (2000). *Bioenergetics of exercise training*. In T.R. Baechle, & R.W. Earle, (Eds.), *Essentials of Strength Training and Conditioning* (pp. 73-90). Champaign, IL: Human Kinetics.
- David, R. M. (2005). *Drugs in sports*, (4th Ed). Routledge Taylor and Francis Group.
- Hunter, M. D. (1979). *A dictionary for physical educators*. In H. M. Borrow & R. McGee, (Eds.), *A Practical approach to measurement in Physical Education* (pp. 573-74). Philadelphia: Lea &Febiger.
- Jeyaprakash, C. S., *Sports Medicine*, J.P. Brothers Pub., New Delhi, 2003.
- Khanna, G.L., (1990). *Exercise physiology & sports medicine*. Delhi: Lucky Enterprises. Mathew, D.K. & Fox, E.L, (1971). *Physiological basis of physical education and athletics*. Philadelphia: W.B. Saunders Co.
- Pandey, P.K., (1987). *Outline of sports medicine*, New Delhi: J.P. Brothers Pub.

Williams, J. G. P. (1962). *Sports medicine*. London: Edward Arnold Ltd.

## TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

### Unit- I Introduction to Test & Measurement & Evaluation

- अ Meaning of Test & Measurement & Evaluation in Physical Education
- Need & Importance of Test & Measurement & Evaluation in Physical Education
- Principles of Evaluation

### Unit- II Criteria; Classification and

- Administration of test ○ Criteria of good Test
- अ Criteria of tests, scientific authenticity (reliability, objectivity, validity and availability of norms)
- अ Type and classification of Test
- अ Administration of test, advance preparation—Duties during testing—Duties after testing.

### Unit- III Physical Fitness

- Tests ○ AAHPER youth fitness test
- National physical Fitness Test
- Test ○ Indiana Motor Fitness Test
- अ JCR test
- अ U.S Army Physical Fitness Test

### Unit- IV Sports Skill Tests

- Lockhart and McPherson badminton test
- Johnson basketball test
- McDonald soccer test
- S.A.I volleyball test
- S.A.I Hockey test

### References:

- Bangsbo, J. (1994). *Fitness training in football: A scientific approach*. Bagsvaerd, Denmark: Ho+Storm.
- Barron, H. M., & Mchee, R. (1997). *A practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.
- Barron, H.M. & Mchee, R. (1997). *A Practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.

**Awasure, Vivek G. & Joshi, A.R. (2015) Test, Measurement & Evaluation in Physical Education, Nagpur : Amit Brothers Publications**

**Charde, S.K., Hussain, Showkat & Kanwar, A.R. (2013) Test, Measurement and Evaluation in Physical Education, Nagpur: Amit Brothers Publications**

**Kansal, D.K. (1996). *Test and measurement in sports and physical education*. New Delhi: D.V.S. Publications.**

**Mathews, D.K., (1973). *Measurement in physical education*, Philadelphia: W.B.SoundersCompnay.**

**Pheasant, S. (1996). *Body space: anthropometry, ergonomics and design of work*. Taylor & Francis, New York.**

**Phillips, D. A., & Hornak, J. E. (1979). *Measurement and evaluation in physical education*. New York: John Willey and Sons.**

**Sodhi, H.S., & Sidhu, L.S. (1984). *Physique and selection of sports- a kinanthropometric study*. Patiala: Punjab Publishing House.**



## KINESIOLOGY AND BIOMECHANICS

**Unit – I Introduction to Kinesiology and Sports Biomechanics**

- अ Meaning and Definition of Kinesiology and Sports Biomechanics
- अ Importance of Kinesiology and Sports Biomechanics to Physical Education Teacher, Athletes and Sports Coaches.
- अ Terminology of Fundamental Movements
- अ Fundamental concepts of following terms – Axes and Planes, Centre of Gravity, Equilibrium, Line of Gravity

**Unit – II Fundamental Concept of Anatomy and**

Physiology ○ Classification of Joints and Muscles

- अ Types of Muscle Contractions
- अ Posture–Meaning, Types and Importance of good posture.
- अ Fundamental concepts of following terms- Angle of Pull, All or None Law, Reciprocal Innovation

**Unit – III Mechanical Concepts**

- Force - Meaning, definition, types and its application to sports activities ○
- Lever - Meaning, definition, types and its application to human body.
- Newton's Laws of Motion–Meaning, definition and its application to sports activities.○ Projectile–Factors influencing projectile trajectory.

**Unit – IV Kinematics and Kinetics of Human Movement**

- अ Linear Kinematics–Distance and Displacement, speed and velocity, Acceleration
- अ Angular kinematics – Angular Distance and Displacement, Angular Speed and velocity, Angular Acceleration.
- Linear Kinetics–Inertia, Mass, Momentum, Friction.○ Angular Kinetics–Moment of inertia ,Couple, Stability.

**Reference:**

- Bunn, J. W. (1972). *Scientific principles of coaching*. Englewood Cliffs, N.J.: Prentice Hall Inc.
- Hay, J. G. & Reid, J. G. (1982). *The anatomical and mechanical basis of human motion*. Englewood Cliffs, N.J.: prentice Hall Inc.
- Hay, J. G. & Reid, J. G. (1988). *Anatomy, mechanics and human motion*. Englewood Cliffs, N.J.: prentice Hall Inc.
- Hay, J. G. (1970). *The biomechanics of sports techniques*. Englewood Cliffs, N.J.: Prentice Hall, Inc.
- Madiwale, M.S. (2014) *Kinesiology*. Nagpur: Amit Brothers Publications
- Choudhary, S., Awasare, V., Datarkar, V., Bhadra, T. (2015) *Kinesiology/Biomechanics made Easy*. Sholapur (M.S.) Wizcraft Publications and Distribution Pvt. Ltd.
- Simonian, C. (1911). *Fundamentals of sport biomechanics*. Englewood Cliffs, N.J.: Prentice Hall Inc.

## RESEARCH AND STATISTICS IN PHYSICAL EDUCATION

### Unit-I Introduction to Research

- अ Definition of Research
  - Need and importance of Research in Physical Education and Sports.
  - Scope of Research in Physical Education & Sports.
- अ Classification of Research
- अ Research Problem, Meaning of the term, Location and criteria of Selection of Problem, Formulation of a Research Problem, Limitations and Delimitations.

### Unit-II Survey of Related Literature

- Need for surveying related literature.
- Literature Sources, Library Reading
- Research Proposal, Meaning and Significance of Research Proposal.
- Preparation of Research proposal / project.
- अ Research Report: A group project is to be undertaken by a small batch of students under the supervision of a teacher, wherein it is expected to survey school facilities of physical education, health assessment programme evaluation, fitness status of the students, staff and other stakeholders etc. and submit the report to the institution.

### Unit-III Basics of Statistical Analysis

- अ Statistics: Meaning, Definition, Nature and Importance
- अ Class Intervals: Raw Score, Continuous and Discrete Series, Class Distribution, Construction of Tables
- अ Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, Frequency Curve. Cumulative Frequency Polygon, Ogive, Pie Diagram

### Unit- IV Statistical Models in Physical Education and Sports

- अ Measures of Central Tendency: Mean, Median and Mode-Meaning, Definition, Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data
- Measures of Variability: Meaning, importance, computing from group and ungroup data
- Percentiles and Quartiles: Meaning, importance, computing from group and ungroup data

### References:

- Best, J.W. (1963). *Research in education*. U.S.A.: Prentice Hall.
- Bompa, T. O. & Haff, G. G. (2009). *Periodization: theory and methodology of training*, 5<sup>th</sup> ed. Champaign, IL: Human Kinetics.
- Brown, L. E., & Ferrigno, V. A. (2005). *Training for speed, agility and quickness*, 2<sup>nd</sup> ed. Champaign, IL: Human Kinetics.

- Brown, L.E. & Miller, J., (2005). *How the training work*. In: Training Speed, Agility, and Quickness. Brown, L.E. & Ferrigno, V.A & Ferrigno, V.A., eds. Champaign, IL: Human Kinetics.
- Carl, E. K., & Daniel, D. A. (1969). *Modern principles of athletes training*. St. Louis: St. Louis's Mosby Company.
- Clark, H. H., & Clark, D. H. (1975). *Research process in physical education*. Englewood cliffs, New Jersey: Prentice Hall, Inc.
- Garrett, H.E. (1981). *Statistics in psychology and education*. New York: VakilsFeffer and Simon Ltd.
- Hussain, Showkat&Kanwar, A.R. (2012) *Research Methods in Physical Education*. Nagpur: Amit Brothers Publications
- Hussain, Showkat&Kanwar, A.R. (2012) *Statistics in Physical Education*. Nagpur: Amit Brothers Publications
- Oyster, C. K., Hanten, W. P., & Llorens, L. A. (1987). *Introduction to research: A guide for the health science professional*. Landon: J.B. Lippincott Company.
- Thomas, J.R., & Nelson J.K. (2005). *Research method in physical activity*. U.S.A: Champaign, IL: Human Kinetics Books.
- Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). *Research method in physical activity*. U.S.A: Champaign, IL: Human Kinetics Books.
- Uppal, A. K. (1990). *Physical fitness: how to develop*. New Delhi: Friends Publication.
- Verma, J. P. (2000). *A text book on sports statistics*. Gwalior: Venus Publications.

## THEORY OF SPORTS AND GAMES

### UNIT-I INTRODUCTION

General Introduction of specilized games and sports- o

- Athletics,
- य Badminton,
- oBasketball, o
- Cricket,
- य Football,
- oGymnastic, o
- Hockey,
- य Handball,
- य Kabaddi,
- य Kho-Kho,
- य Tennis,
- य Volleyball and
- य Yoga.

Each game or sports to be dealt under the following heads

- oHistory and development of the Game and Sports o
- Ground preparation, dimensions and marking
- oStandard equipment and their
- specificationsoEthics of sports and
- sportsmanship

### UNIT-II Scientific Principles of coaching: (particular sports and game specific)

- य Motion- Types of motion and Displacement, Speed, Velocity, Acceleration, Distance and Newton's Law of motions.
- oForce-Friction, Centripetal and Centrifugal force, Principles of force.oEquilibrium and its types
- य Lever and its types
- य Sports Training-Aims, Principles and characteristics.
- य Training load-Components, Principles of load, Over Load (causes and symptoms).

### UNIT-III Physical fitness components: (particular sports and game specific)

- oSpeed and its
- typesoStrength and its
- types
- oEndurance and its
- typesoFlexibility and its
- types
- य Coordinative ability and its types
- य Training methods: - Development of components of physical fitness and motor fitness through following training methods (continuous method, interval method, circuit method, fartlek /speed play and weight training)

#### **UNIT-IV Conditioning exercises and warming up.**

oConcept of Conditioning and warming  
up.oRole of weight training in games and  
sports.

य Teaching of fundamental skill & their mastery (technique, tactic and different phases of  
skill acquisition).

य Recreational and Lead up games

य Strategy-Offence and defense, Principles of offence and defense.

#### **References:**

Bunn, J. W. (1968). *The art of officiating sports*. Englewood cliffs N.J. Prentice Hall.

Bunn, J. W. (1972). *Scientific principles of coaching*. Englewood cliffs N. J. Prentice

Hall. Dyson, G. H. (1963). *The mechanics of athletics*. London: University of London

Press Ltd. Lawther, J.D. (1965). *Psychology of coaching*. New York: Pre. Hall.

Singer, R. N. (1972). *Coaching, athletic & psychology*. New York: M.C. Graw Hill.

## SPORTS MANAGEMENT

## Unit I ○ Nature and Concept of Sports

Management. ○ Progressive concept of Sports management.

○ The purpose and scope of Sports

Management. ○ Essential skills of Sports

Management.

○ Qualities and competencies required for the Sports

Manager. ○ Event Management in physical education and sports.

## Unit-II

○ Meaning and Definition of

leadership. ○ Leadership style and method.

☞ Elements of leadership.

☞ Forms of Leadership.

- Autocratic
- Laissez-faire
- Democratic
- Benevolent Dictator

○ Qualities of administrative

leader. ○ Preparation of administrative

leader.

☞ Leadership and Organizational performance.

## Unit-III

○ Sports Management in Schools, colleges and

Universities. ○ Factors affecting planning

○ Planning a school or college sports

programme. ○ Directing of school or college sports  
programme.

☞ Controlling a school, college and university sports programme.

- Developing performance standard
- Establishing a reporting system
- Evaluation
- The reward/punishment system

## REFERENCES:

- Ashton, D. (1968). *Administration of physical education for women*. New York: The Ronald Press Co.
- Bucher, C.A. *Administration of physical education and athletic programme*. 7<sup>th</sup> Edition, St. Louis: The C.V. Mosby Co.
- Daughtrey, G. & Woods, J.B. (1976). *Physical education and intramural programmes, organisation and administration*. Philadelphia U.S.A. : W.B. Saunders Co.
- Earl, F. Z, & Gary, W. B. (1963). *Management competency development in sports and physical education*. Philadelphia: W. Lea and Febiger.

### **UNIT I – Introduction**

Meaning and Definition of Statistics. Function, need and importance of Statistics. Types of Statistics. Meaning of the terms, Population, Sample, Data, types of data. Variables; Discrete, Continuous. Parametric and non-parametric statistics.

### **UNIT II – Data Classification, Tabulation and Measures of Central Tendency**

Meaning, uses and construction of frequency table. Meaning, Purpose, Calculation and advantages of Measures of central tendency – Mean, median and mode.

### **UNIT III – Measures of Dispersions and Scales**

Meaning, Purpose, Calculation and advances of Range, Quartile, Deviation, Mean Deviation, Standard Deviation, Probable Error. Meaning, Purpose, Calculation and advantages of scoring scales; Sigma scale, Z Scale, Hull scale

### **UNIT IV – Probability Distributions and Graphs**

Normal Curve. Meaning of probability- Principles of normal curve – Properties of normal curve. Divergence from normality – Skewness and Kurtosis. Graphical Representation in Statistics; Line diagram, Bar diagram, Histogram, Frequency Polygon, Ogive Curve.

### **UNIT V – Inferential and Comparative Statistics**

Tests of significance; Independent “t” test, Dependent “t” test – chi – square test, level of confidence and interpretation of data. Meaning of correlation – co-efficient of correlation – calculation of co-efficient of correlation by the product moment method and rank difference method. Concept of ANOVA and ANCOVA.

Note : It is recommended that the theory topics be accompanied with practical, based on computer software of statistics.

### **REFERENCE**

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clark D.H. (1999) Research Problem in Physical Education 2<sup>nd</sup> edition, Eaglewood Cliffs, Prentice Hall, Inc.
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;
- Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
- Rothstain A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
- Sivaramakrishnan. S. (2006) Statistics for Physical Education, Delhi; Friends Publication
- Thirumalaisamy (1998), Statistics in Physical Education, Karaikudi, Senthilkumar Publications.

# Doping

Definition of Doping – Side effects of drugs – Dietary supplements – IOC list of doping classes and methods. Blood Doping – The use of erythropoietin in blood boosting – Blood doping control – The testing programmes – Problems in drug detection – Blood testing in doping control – Problems with the supply of medicines Subject to IOC regulations : over- the- counter drugs (OTC) – prescription only medicines (POMs) – Controlled drugs (CDs). Reporting test results – Education

## REFERENCES :

- BeotraAlka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
- Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.
- Cart, E. Klafs&Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosphy Company
- Daniel, D. Arnheim (1991) Principles of Athletic Traning, St. Luis, Mosby Year Book
- David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moore University
- Gary, T. Moran (1997) – Cross Training for Sports, Canada : Human Kinetics
- Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications
- Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia
- Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2<sup>nd</sup> Edition, London: Jones and Bartlett Publications
- YograjThani (2003), Sports Training, Delhi : Sports Publications



## **Syllabus for Pet – II Examination**

### **Name of Subject: Home Economics, Faculty of Interdisciplinary**

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#### **Unit- I:**

- a) Meaning and definition of Research, Types of Research Methods: Historical, Survey and Experimental Research, Formulation of Research Problem, Research Design- characteristics of Research Design, Objectives, Importance and Steps of Research Design.
- b) Formulation of Hypothesis-Sources of Hypothesis, Characteristics of Good Hypothesis, Types of Hypothesis. Variables: Importance and Types. Sample- Meaning and definition of sample and Census, Characteristics of good sample, Advantages of sampling, Limitations of sampling, Size of sample, Methods of Sampling Techniques.
- c) Data Collection - Importance & Types of Data, Sources of Data, Methods of Data collection, their merits and demerits. Classification of Data - characteristics and objectives of Classification, Types of Classification. Tabulation of Data - Objectives of the tabulation, Characteristics of a good Table, Types of Tables, Rules and precautions while preparing Tables, Advantages of tabulation. Interpretation of Data- Process of Analysis and Interpretation.
- d) Report Writing – Preparation of Report, Objectives of Research Report, content of good Report, characteristics of good Report, Steps in Report Writing, Importance of report writing, Bibliography. Graphical and Diagrammatic Representation- Types of graphs, Importance/Merits of graphical representation, Demerits of graphs. Objectives of Diagram, Importance/Merits of Diagrammatic representation, Limitations, characteristics of Diagrammatic representation. Importance and Application of Computer in Research.

#### **Unit- II:**

- a) Resources – Definition, meaning, characteristics and classification. Factors affecting family resources and methods to maximize the utilization of resources. Home Management- Definition and objectives. Obstacles in the improvement of Home Management and Process of Management. Decision Making-Definitions, importance and steps and the role of decision making in home management. Elements and Principles of Art, their application in Interior Decoration
- b) Definition and elements of General System Theory. Advantages and limitations of System Approach. Comparison of linear and systems thinking. Ergonomics: Definition, scope and nature of ergonomics in home and other occupation. Ergonomics in Home-Anthropometric dimension of workers at work and at rest. Man –Machine – Environment System. Normal and maximum vertical and horizontal reaches. Stress Management- Definition, meaning and importance of stress and stress management. Causes and effect of stress. Stress management techniques.
- c) Work Simplification-Definition, meaning and importance. Principles and Techniques of work Simplification. Mendel's classes of Change. Family life cycle-Concept and stages of family life cycle. Management during various stages of family life cycle. Role of woman in the various stages of family lifecycle.

d) Time Management - Nature and meaning of time, Process of Time Management. Time demands in different stages of family life cycle. Tools of Time Management.

Energy Management - Nature and meaning of energy and Process of Energy Management. Energy demands in different stages of family life cycle, Energy costs of different home making activities. Fatigue – (i) Physiological (ii) Psychological.

Leisure Time- Definition, concept and importance of leisure time. Types of spending leisure time. Factors affecting leisure time.

### **Unit- III:**

- a) The Three Domain of Human Development-
- \* Biosocial Development,
  - \* Cognitive Development
  - \* Psychological Development

Psychological Tests-Meaning, Importance and use of Psychological Tests. Psychometric method, Scale for infant assessment, Draw a man test, Children Apperception Test. Early Childhood Care and Education. (ECCE) Importance, need and scope of ECCE. Objectives of ECCE. Types of preschools – Play Centres, Day Care, Montessori, Kindergarten, Balwadi, Anganwadi, etc. Role and responsibilities of care giver and teacher. Record and Report. Types - aim and purpose / need, general, characteristic. E.g. anecdotal, cumulative sample work, medical etc.

- b) Early childhood – Characteristics, Developmental task, Skills of early childhood, Emotions during early childhood, Socialization and social behaviour, Happiness and Hazards during early childhood. Late childhood - Characteristics, Developmental tasks, skills of late childhood, Hazards and happiness of late childhood, Moral Development. Theory of Kohlberg – Behaviour during late childhood. Behavioural Problems.

- c) Puberty - Characteristics, causes of Puberty, Primary and Secondary sex Characteristics, Developmental tasks, problems during puberty, Happiness and interest, Vocational interest, Self discipline and family relationship. Adolescence – Characteristics, Developmental Tasks, physical changes during Adolescence, sex interest and sex behaviour, causes of family frictions during adolescence, Hazards and Happiness. Adolescent conflicts - Parent, School Authority, Grandparents.

- d) Counselling: History of counselling, meaning, need, objectives and functions. Qualities and skills of Counsellor, Distinction between Guidance and counselling. Mental Health -Definition, concept and importance of holistic health, well being and happiness. Sense of Identity, autonomy, individualism during adolescence, Problems related to physical appearance and sexuality during adolescence. Personality Development- Definitions, Meaning, Importance.

#### **Determinants of Personality**

- \* Self-Concept, Factors affecting Self Concept, Components of Self Concept- Self Identity, Self Evaluation, Self Ideal.
- \* Heredity & environment
- \* Learning & maturation

**Unit- IV:**

a) Marriage - Definitions, Motives for marriage- Earlier and Now. Age and time factor, social experience, motivation and maturity, vocational and educational readiness, parental readiness. readiness for marriage, functions of marriage, factors affecting marital relationship. Marital Success. Changing concept of marriage. Dual career marriage-benefits, job establishment, child care, effects on children, strains.

b) Family- In the social context, as a component of social system and Functions. Socio - cultural studies of family pattern in India. Family structure: Traditional, Extended, Nuclear, Joint families. Family disorganization and tension- definition and meaning, causes of family disorganization, causes of family tension- situation of Fundamental and Primary tension. Alternate families - Single Parent, Childless Families and Female Headed Families.

c) Concept of Aging and the Aging Process- Physiological aspects, Psychological aspect, Social aspect, Spiritual aspect retired status, single status, economic status, security, social adjustment and recognition.,

Adjustment pattern and changing lifestyle during old-age. Family pattern during old age - changing roles and the aging family, conjugal husband-wife relationship, sexual adjustment. Intergenerational family relations, grand parenthood, widowhood, Alternative life style, second marriage in old-age. Services and programs for the aged- Laws and facilities favouring the senior citizens. Categories of services - Housing, Health, leisure time activities, institution for the aged, (old age homes, adoption of the old) day care centres, rearrangement after retirement, economic programmes - retirement pension, death cum retirement gratuity, provident fund, insurance schemes.

d) Emotions and mental health :- Anger and hostility, Fear and anxiety, Defence mechanisms, kinds of mental illnesses, Reasons leading to Mental Ill health, Factors affecting mental health and maintaining mental health. Concept of mental hygiene. Value of prevention of mental ill health during childhood. Mental health agencies- National Association of Mental Health, State Mental Health Agencies, Child Guidance Clinics, Government and non - government mental health agencies.

**Unit- V:**

a) Classification of Textile fibers, Manufacturing process, properties and uses of - Natural fibres - cotton, silk, wool. Synthetic fibres - polyester, Nylon, Acetate. Yarn formation - Mechanical and chemical spinning. Types of yarns - Simple, Novelty, Textured yarn. Weaving - Handloom and its parts and functions, basic weaves and Jacquard. Knitting -Types of knits - warp & weft knit and their uses. Non Woven -Felts, Bonded fabric, Braiding, their uses.

b) Finishes -Definition, classification and Purpose of finishes. General Finishes and Special Finishes. Dyeing - Classification of dyes- Natural, Synthetic, Pigments, Vegetable dyes. Different types dyes and their suitability to different fibers. Different dyeing Methods - Fiber dyeing, Yarn dyeing, Piece dyeing and Garment dyeing. Methods of Fabric Printing-Tie & dye, Batik, Screen, Stencil, Roller and Block Printing.

c) History of Clothing, Psychological effects of clothing and factors affecting selection of clothing. Application of Elements of Arts and principles of design in clothing. Selection of dress design according to different types of figure. Wardrobe Planning, Clothing for different age groups. Consumer behaviour as applied to clothing.

Fashion - Definition, Origin, fashion cycle, factor affecting fashion, fashion trends.

d) Body measurement and its importance and preparing measurement chart.

Methods of pattern making - Drafting, Draping, and Flat patterns.

Preparation of fabric for clothing construction, placing and cutting paper patterns in relation to texture and design (Stripe, Printed, Checks and Boardered Fabric)

Seams:- Definition, Types and Functions. Shaping devices: - Darts, Tucks,

Gathers, Pleats, Yoke, and Ruffles. Fitting problems and their remedies.

Renovation of garments and household articles.

#### **Unit- VI:**

a) Review of nutrients- Proteins, Carbohydrates, fats, Vitamins and Mineral- their Classification, Functions, Sources and Deficiency Diseases. Different Types of Cooking Methods and Effect of various cooking methods on different nutrients.

b) Community Nutrition- Population and food production, Current Nutritional problems in India and their Causes, Remedial Measures. Nutrition and Infection- Vicious Cycle of Malnutrition and infection, Mechanism of Immune response to infection, Malnutrition and Mental health. Assessment of Nutritional Status,- Anthropometry, Diet Survey, Clinical Assessment, Radiological & biophysical Assessment, Vital Statistics and Ecological Factors Nutrition Education- Objectives, Importance and Methods of Nutrition Education.

c) Women and Nutrition- Situation of women in Global, National and Local context, Women's Health, Improving their Nutritional & Health status, Health problems of women. Intervention throughout the life cycle, Empowerment of women, Role of education.

d) Food Microbiology - Study of Bacteria, Yeast, Mould, Algae, Microbiology of Fruits, Vegetables, Milk and Water.

Leavening agents - Chemical & Biological. Antioxidants. Methods of Food preservation, Food adulteration and Food Adulteration Act 1954.

Food sanitation and Hygiene- Water -Sources of contamination of water, Treatment of Water. Food handling, Food contamination. Practical rules of Food sanitation, Control of rodents and Insects.

#### **Unit- VII:**

a) Definition, scope, philosophy and objectives of Extension Education. Methods of teaching Extension Education, classification of the methods. Role of the extension worker in community development. Role, function and contribution of GramSevika, Mahila Mandals, Youth Clubs.

NGOs -Meaning, Nature and Functions. Some NGOs at State Level and other local agencies in Extension Education.

*Contribution of U.N. Agencies towards Extension work.-UNESCO, UNICEF, UNDP, ECOSOC. Rashtriya Mahila Aayog, U.N. Resolution 1325.*

b) *Communication- Importance in Extension work. Functions of communication-Information function, Instructive/command function, Influence/persuasive function, integrated function.*

*Models of Communication – Aristotal's Model, Shammon Weave's Model, JP Leagons's Model Characteristics of a good Communicator, Problems related to Communication.*

c) *Adult Education- Back ground , Definition and aims of adult education. Adult learning process, difference between child learning and adult learning. Stimulus –response theory of adult learning. Factors affecting adult motivation. Requisite conditions for adult learning. Adult education and National Development. Adult Education Programmes in India.*

d) *Definition, Importance and need of Population Education, Objectives- National objectives, Objectives of Population Education at School Level. Causes and effect of population growth. Scope of Family planning services, Health aspect of family planning. National Family Welfare Programmes, Family Planning Programme. Hindrance in Implementation of Family Planning Programme.*

#### **Unit- VIII:**

a) *Housing - Concept and History. Changes in housing needs and standard. Housing values and goals at the present time. Housing in India as affected by trends in - Population, economics status, Occupation, family mobility, Social and cultural status. Public rural and urban housing schemes for various economic groups. Role of Co-operative Societies in development of housing in urban and rural areas. Role of private sector in development of housing in urban and rural areas.*

b) *Housing Loans- Loan providing agencies- Government and Private. Legal procedure for purchase of house. Housing legislations and Building Byelaws- Meaning, definition, and importance of housing legislations and building byelaws. Essential services- Importance and need, Types of services- Water supply, drainage system, electricity, telephone. Bye-laws related to the essential services.*

c) *Ecosystem- Earth, Man and Environment- Ecosystems of India. Problems of sustainability of ecosystem. Fundamental principles of environment and natural resource management.*

*Pollution- Causes, Effects and Remedies- Air pollution, Water Pollution, Soil Pollution, Solid Waste Pollution. Noise Pollution and Radiation Pollution.*

*Environmental standards- ISO 14000, EMS and Environment auditing.*

d) *Role of a woman as a Home maker, Responsibility of women as*

consumer. Role of women in consumer movement. Consumer Protection Acts - Essential Commodity Act - 1955, Standard Weight and Measures Act- 1956, Consumer Protection Act-1986, Right to Information Act - 2005.

To,  
Rashtrasant Tukadoji Maharaj Nagpur University,  
Nagpur .

**Subject: Social Work, Syllabus for Ph.D. Entrance Test (PET)**

**Unit -- I: Social Research and Social Work Research:**

- Social Research: Meaning, Objectives, Significance and Types.
- Research Process: Steps in Research: Problem Formulation, Operationalization of Variables, Hypotheses, Universe and Sampling etc.
- Research Designs, Qualitative and Quantitative Research, Survey Research, Case Study, etc.
- Ethics in Social Research
- Method, Tools and Techniques of Data Collection,
- Data Analysis and Report Writing.
- Statistics and Its use in Social Work Research.
- Tabulation, Hypothesis testing, Analysis of Variance, Correlation and regression, Multidimensional Scaling.
- Computer application in Research, SPSS, EXCEL etc.
- Social Work Research: Definition, Nature, Scope etc.
- Significance of Social Work Research and Utilization of Social Work Research in Social Work.

**Unit – II: Social Work and Social Sciences:**

- Emergence of Professional Social Work in UK and USA
- Social reform movements and development of professional social work in India
- Goals, Philosophy, Values, Ethics Skills and techniques of Social Work
- Integrated Approach to Social Work Practice
- Religious ideologies of social work and Gandhian Social Work
- development of Social Work Education in India
- Social Work Education and Problems and challenges before Social Work in India.
- New trends in Social Work, Environmental Social Work
- Role of social work in disaster management.
- Meaning and Characteristics of Society, Community, Social Group and Social Institutions, Social Structure and Social Stratification
- Theories of Social Change and Social Disorganization,

- Tribal, Rural and Urban Communities, Weaker and Vulnerable Sections and Minority Groups, Population, Poverty, Unemployment,
- New Economic Policy, Concept of Welfare State
- Indian Constitution Features, Fundamental Rights and Directive Principles of State Policy.
- Planning in India- Five Year Plans.
- Intervention in Social Problems, Government and Voluntary Efforts.
- Role of the Social Workers in identifying Social Problems and Development of Appropriate Strategies.
- Human Behaviour, Human Needs, Human Motivation and Problems of Human Behaviour and Coping and Defense Mechanisms, Human Growth and Development in the Lifespan of Individual.

### **Unit -- III: Social Case Work and Social Group Work:**

- Social Case Work: Concept, Objectives and Principles and Process of Social Case Work
- Approaches in Case Work
- Techniques and Skills in Social Case Work;
- Interviews, Home Visit, Resource Mobilization, Referral, Environmental Modification. Case Work Relationship, Communication, Recordings in Case Work.
- Counseling: Concept, Theories and Techniques Role of Social Case Work
- Social Group Work: Concept, Definition, Objectives and Goals of Social Group Work.
- Principles, Skills and Values of Social Group Work. Stages of Group Development and Use of Programmes for Group Development.
- Study of Group Process, Group Dynamics etc.
- Approaches and Models in Group Work Practice

### **Unit -IV: Community Organization and Social Welfare Administration.**

- Community as a Social System, Classification of Communities, Power Structure within Communities.
- Concept, Principles and Objectives of Community Organization. Models of Community Organization, Scope of Community Organisation Practice in India.
- People's Participation in Community Programmes, Local Leadership.
- Social Action as a Method of Social Work: Concept, Strategies and Techniques.
- Management and Governance of Human Service Organization
- Welfare and Development Organizations and Services. Government and Voluntary Organizations and need for their Partnership. Project Management, Monitoring and Evaluation.



- Social Welfare Administration : Meaning, History, Principles, Administrative structures (Government and Non - Government).
- Characteristics of Social Welfare Organizations.
- Management of Social Welfare Organizations (Government and Voluntary). Programme and Project Management

**Unit –V: Social Justice and Social Policy:**

- Concept of Social Justice
- Civil Rights; Human Rights; and Issues of Social Justice.
- Legislations pertaining to Women and Children. Legislations pertaining to Social Defense, Social Security and Social Assistance.
- Legislations pertaining to Persons with Disability, the Underprivileged and Health related Legislations. Right to Information.
- Role of Social Worker in promoting Social Legislation, Human Rights and Social Justice.
- Social policy: Concept and Scope,
- Evolution of Social Policy in India , Review of Major Policies and Programme.
- Corporate Social Responsibility and Social Work
- Social Development: Meaning, Concept and Indicators Approaches and Strategies.
- Concept of Human Development and Human Development Index.
- Global Efforts for Human Development.
- Concept of empowerment, Sustainable Development, People-Centered Development.

Date: 10. 04. 2021



Dr. Purushottam Thote  
**Chairman**  
 Board of studies,  
 Social Work.

# **Rashtrasant Tukadojo Maharaj Nagpur University, Nagpur**

## **SYLLABUS FOR PET – 2021**

### **LIBRARY AND INFORMATION SCIENCE**

#### **(SECTION B)**

#### **PAPER II**

#### **Unit-I: Research Methods and Statistical Techniques in LIS**

- Research: Concept, Meaning, Need and Purpose of research
- Types of Research: Fundamental and Applied including inter-disciplinary and multi-disciplinary approach
- Research and Development of Scholarship
- Research Design: Conceptualization and nationalization
- Types of Research Design; Identification and formulation of problem
- Hypotheses, Nominal and Operational definition
- Designing Research Proposal
- Ethical aspects of Research
- Literature Search – Print, Non-print and electronic sources
- Research Methods: Scientific Method; Historical Method; Descriptive Method; Survey Method and Case Study Method; Experimental Method and Delphi Method
- Research Techniques and Tools: Questionnaire; Schedule; Interview; Observation; Proforma Method; Scales and Check lists; Library Records and Report Analysis; Sampling techniques
- Research Reporting: Structure, Style and contents; Guidelines for Research Reporting
- Style Manuals – Chicago, MLA and APA etc
- E-Citation and Methods of Research Evaluation
- Descriptive Statistics: Measures of Central Tendency – Mean, Mode and Median; Tabulation and Generalization; Measures of Dispersion, Variance and Covariance; Standard Deviation
- Graphical presentation of Data Bar, Pie & Line Graphs, Histograms etc
- Inferential Statistics; Z-test, T-test, Correlation; Regression linear and Non-linear; Chi Square Test; Sociometry
- Statistical packages – SPSS; Statistical Graphics etc
- Bibliometrics, Scientometrics and Informatics: Definition and Concept; Bibliometric Laws; Bradford, Zip and Lotka; Bibliographic coupling; Obsolescence; Citation Analysis; Webometrics; Citation studies; Informatics; Scientometrics

#### **Unit-II: Information and Communication**

- Information and Communication: Information, Characteristics, Nature, Value and Use of Information
- Conceptual difference between Data, Information and Knowledge
- Communication of Information: Information generation
- Trends in Scientific Communication

- Information Science: Definition, Scope and Objectives; Information Science as a discipline and its relationship with other subjects
- Library, Information and Society: Genesis, Characteristics and implications of Information Society
- Changing role of Library and Information Centres in Society
- Information Industry Generations, Providers & Intermediaries
- Concept of Freedom, Censorship, Data Security and Fair Use
- Policies relating to Information, Right to Information including Sciences and Technology, Education; International and National Programmes & Policies (NAPLIS), IT & Library, UAP, UBC
- Library as Social Institution: Social and historical foundations of Library
- Different types of Libraries – their distinguishing features and functions
- Role of Library in formal and informal education
- Normative Principles of Library & Information Science
- Five laws of Library Science
- Implications of Five laws in Library and Information activities
- Library Development: Development of Libraries with special reference to India
- Resource sharing and Library Networking
- Laws relating to Libraries
- Information: Library Legislation need and essential features
- Library Legislation in India
- Press and Registration Act and Delivery of Books (Public Library) Act
- Copy Right Act
- Right to Information Act
- Intellectual Property Rights
- Library & Information Profession: Attribution of profession; Librarianship as a profession; Professional ethics
- Professional associations and their role: National and International Library Associations
- Professional Education and Research
- Public relations and Extension activities: Definition; Facets and Programs
- Promoters of Library and Information Services: National level promoters --- RRRLF; International level promoters--- UNESCO
- Publicity and Extension, Outreach activities; Library Path Finders (Guides); Consultancy including promotional Web Tools

### **Unit-III: Knowledge Organization**

- Cataloguing, Subject Indexing & Universe of Knowledge: Structure and attributes; Modes of formation of subjects; Different types of subjects; Universe of subjects as mapped in different schemes of classification
- Bibliographic Description: Catalogue purpose, structure and types; Physical forms including OPAC and filing rules
- Normative Principles of Cataloguing; Overview of principles and practice in document description; Current trends in standardization, description and exchange; Standard codes of cataloguing
- Methods of Knowledge Organization: General theory of Library Classification; Normative Principles of Classification and their application; Species of Library Classification; Standard schemes of Classification and their features, CC, DDC &

UDC; Design and Development of schemes of Library Classification; Trends in Library Classification

- Principles and Practices: Principles of Subject Cataloguing: Assigning Subject Headings, Using Library of Congress Subject Headings and Sear's List etc.; Models Assigned and Derived; Pre & Post Coordinate Indexing System and Citation Indexing
- Indexing Language & Vocabulary Control: Indexing Language: Type and Characteristics; Vocabulary Control; Tools of Vocabulary Control; Structure and Construction of IR Thesaurus; Trends in Automatic Indexing
- Information Retrieval: IR Models, Search Strategies, Manual/Machine, Feedback and Refining; Evaluation of Information Retrieval System; Project and Parameters; Trends in IR Models. Databases: Search Strategies, Boolean Operators
- Information Processing and Organization
- Current trends in Information Storage and Retrieval

#### **Unit-IV:                      Management of Library and Information Centres**

- Management: Concept, definition, scope, styles and approaches
- History of Management thoughts
- Financial Management: Resource mobilization, Budgeting techniques and methods (PPBS, ZBB etc.), Budgetary control, Cost effectiveness and Cost benefit analysis, Economics of Information, Outsourcing
- Human Resource Management
- Reporting: Types of report, Annual report – computation, contents and style; Library Statistics etc.
- System Analysis and Design
- TQM, PERT/CPM, Marketing of library and information services/products, reengineering, six sigma, Management of Change, Brain Storming, Mind Mapping, Stress Management, Technical Writing, Information Consolidation and Repackaging
- Library House Keeping Operations: Different sections of Library and Information Centre and their functions
- Collection development: selection, acquisition, evaluation and weeding out
- Planning, MBO, Building and Space Management in Libraries and Information Centres; Risk Management, Contingency Management; Planning of related Infrastructure, Library standards.
- Information Sources and Services: Primary, secondary and tertiary sources and their evaluation criteria, Electronic information sources, databases: features, pricing models, open access resources, consortia, evaluation of electronic information sources, CAS, SDI, Referral, Reader's advisory service, digital reference service, Document Delivery, Reprographic Services, Translation Services, Indexing and Abstracting Services, Recent Trends in Information Services
- Information Users and their Information Needs, Information Seeking Behaviour; User Studies, User Education
- Information Systems and their Services: Study of National, International and Commercial Information Systems and Services

## **Unit-V: Applications of ICT in Libraries and Information Centres**

- Information Technology: Definition, Need, Scope and Objectives. Computer Basic (Hardware): Historical development of computers; Generation of Computers, Classification of Computers. Computer Architecture—Organization of Computer: Input and Output Devices. Software: System Software and Application Software with examples (MS-Office), Operating Systems: Single & Multi User Systems, Basic features of MS-DOS, MS-Windows, Linux, Unix, Window-NT, etc.; Programming languages
- Communication Technology: Fundamentals of Telecommunication Technology, Media, Mode and Components, Network Media, UTP, Optical Fiber, Ethernet, Network Interface Card, Hubs, Routers and Modems; Network types and Topologies
- INTERNET: Basic features and tools, Network based Information Services; Internet Connectivity, Internet Protocols, Web Browsers, Web tools and Search Engines; Search Techniques, Internet Security; Teleconferencing
- Library Automation: Steps in Planning Library automation: Feasibility Study, system analysis, Design, Implementation and Evaluation, Selection of Hardware and Software, Human Resource Development For IT Challenges, Automation of Housekeeping Operations: Acquisition, Cataloguing, Circulation, Serial Control
- Library Automation Software Packages; their study and composition (CDS/ISIS, SOUL, LIBSYS), Open Source Library Management software: Salient features (e-Granthalaya and Koha)
- Web Technologies in Libraries and Information Centres: Library Websites (Contents, Design and Evaluation), Web OPACs, M-OPACs, Web 2.0 and Web 3.0 (Features and Functions), Web 2.0 Tools and their applications in Libraries: Weblogs, Podcasts, RSS Feed, Instant Messaging, Wikis, Flickr, Social Networking, etc.
- Barcode, RFID, Smart Card, 3M Security, CCTV, cloud computing,
- E-Learning: Concept, Need, Objectives, Tools, Multimedia applications in libraries
- Modern Libraries: Electronic, Digital and Virtual Libraries (Definitions, Concept, Objectives, Scope, development and Services)
- Organization of Digital Libraries: Collection Development, Image formats, Audio formats, Storage Media Formats, Digitization: Tools and Process, Equipment (Scanners, Digital Camera, etc.) Intellectual Property Rights issues in Digitization (Copyright Infringement, Fair Use of digital information, Open access and Creative Commons)
- Building Digital Libraries: Hardware and Software, OCR, Image Editing Software, Open Source Software (Dspace, Eprint, Greenstone and Fedora), Metadata (Definition, Types, Creation and Standards), Preservation Technologies
- Digital Libraries initiatives Worldwide and in India, Institutional Repositories (Concept, Definitions and Importance, Steps in Creation of Institutional Repository, Institutional Repositories in India), ETD Repositories (Concept, Definitions, Importance in Research, Initiatives in India and Worldwide)
- MOOC, SWAYAM
- E-governance

**Syllabus for Pet – Examination**  
**Name of Subject: Fine Arts,**  
**Faculty of Interdisciplinary , Subject Code: 4.09**

**Unit-I:**

**Traditional Theories Of Art**

- Theory Of Imitation : Plato
- Theory Of Representation : Aristotle
- Theory Of Expression : Veron, Leo Tolstoy, Collingwood, Carrit, Freud, Susanne
- Theory Of Intution : Langer, Reid

**Unit-II:**

**Style in Art**

- Style as a Category of ontology of Art
- The Structure
- The Functional Diversity of Style
- The Life of Style in a Work of Art

**Unit-III:**

**Art and Its Aesthetics**

- Subject Matter And Purpose Of Aesthetics
- Aesthetic Knowledge As A System
- Aesthetic Activity
- Aesthetics : Filed Of Operation
- The Aesthetics : It's Essence And Principal Forms
- The Beautiful The Base The Horrible
- Integrity And Fragmentation Aesthetic Notions Aesthetic Categories
- The Quality Of Polyphony And Interrelation Of Aesthetic Qualities In Life And Art

**Unit-IV:**

- Study of Natyashastra
- Origin and Development of Dance Drama and Music
- Technique of Performing Arts
- Forms of Dance Drama and Music and Types of Theatrical Productions
- Modern Trends in Performing Arts

**Unit-V:**

**Comparison of Performing Arts:**

- Dance and Drama
- Drama and Music
- Music and Dance
- Drama and Cinema

*Sanyukta*  
26.4.21



- Drama and Television
- Radio Drama

#### Unit-VI:

- Visual Arts: Concept And Scope
- Visual Artist: Place And Position In Modern Art
- Visual Art: Branches Comparison And Views

#### Unit-VII:

##### **Art, Design And Society**

- Analysis Of History Of Art: Traditional Arts, Modernity And Post-Modernity
- Analysis Of History & Context Of Design In India.
- Cultural Studies, Discourse Analysis

#### Unit-VIII:

##### **Art As language**

- The Semiotics of Artistic Activity
- The Sign And It's Role in Artistic Culture.
- The Language of Art, Art Work – The Meta Sign of Artistic Culture

Sanghvi  
26.4.2021

# **Mass Communication**

## **PhD Entrance Test (PET) Syllabus**

### **Unit 1 – Mass Communication**

- i) **Principals of Mass Communication** - processes, types, models, systems & theories, market-driven media content, effects, skyvasion, cultural integration and cultural pollution, **Communication Research** – types of media research, data collection, data analysis, report writing.
- ii) **Development Communication** – Meaning and concept, models, role of media, democratic decentralization, development and welfare in India.
- iii) **International Communication** – political, economic and cultural dimensions, McBride Commission and New World Information Communication Order (NWICO), UN Declaration of Human Rights and Communication, International news agencies, impact of technology on international news flow, information super highways, globalization, cultural imperialism.
- iv) **Intercultural Communication** – Definition and process, culture and sub-culture, cultural symbols, language and grammar, religious, political and economic barriers, impact of technology and globalization, mass media as a culture manufacturing industry, folk media, dance and music in inter-cultural communication, UNESCO's efforts in promoting intercultural communication.
- v) **Environmental Communication** – Sustainable Development, humans and environment, ecology & ecosystems, bio-diversity, major forms of pollution, role of mass media in environmental education, eco-friendly lifestyles, environmental journalism, folk, traditional and new media for environmental communication.

### **Unit 2 – News Media**

- i) **History of Media** – Early newspapers in Europe, USA and India, role of Indian press in freedom movement, growth of English and vernacular press after Independence, history of Radio, birth of Prasar Bharti, various committee into broadcasting, commercial radio, FM radio, radio for education and rural development; development of television as a medium of mass communication, birth and growth of TV in India, DTH and Cable TV, impact of TV on society, private TV news channels in India, soaps and reality shows, history and impact of cinema in the world and in India.
- ii) **Print Media** – Definition, concept, elements and values of News, news writing style, structure and intro/lead, sources of news, specialized reporting (beats), interviewing, interpretative, investigative journalism, feature, news analysis, editorial writing, photojournalism (news and feature photo, digital photography and editing, copy editing, news selection, headline styles, layout and design, web reporting.
- iii) **Electronic Media** – Principles of audio-visual communication, role, function and types of radio news, script writing for radio, different types of microphones, sound-recording, studio equipment, non-news radio programmes – types and formats, news reading and anchoring radio programmes, types and formats of television programmes, sources of TV news, live reporting, role and social obligation of TV – factuality and credibility.
- iv) **Digital (New) Media** – Evolution of Information and Communication Technology (ICT). History and growth of Internet and World Wide Web, ownership and administration of the Internet, Web page development – inserting, linking, uploading, publishing, cyber journalism – writing for the web, online editions, web news portals/apps, online news gathering, blogs, social media.
- v) **Media Management & Media Laws** – Principles of media management, media ownership, functions of departments in media organization, ABC, IRS, INS, Constitution of India – fundamental rights,



freedom of speech and expression, Contempt of Courts Act 1971, civil and criminal laws of defamation, Press & Registration of Books Act 1867, Right to Information Act 2005, Official Secrets Act 1923, Working Journalists Act 1955, Copyright Act, Cyber laws, Public Interest Litigation, media ethics, Press Council of India, codes of conduct.

### **Unit 3 – Advertising**

- i) Meaning and concept. Advertising tools, consumer behavior, culture, sub-culture, social class, social group, lifestyle, buying motivation, theories of motivation;
- ii) Creative process, advertising appeals, copy-writing, advertisement layout and design – colour, pictures, graphics, fonts;
- iii) Brand management – definition, concepts, brand strategy, brand image and personality;
- iv) Media planning and selection, media strategies, budgeting, advertising research and market research, audience research.

### **Unit 4 – Public Relations & Corporate Communication**

- i) Public Relations and Corporate Communication strategy, campaign planning, crisis communication;
  - ii) Stakeholders, building image and corporate identity, tools of public relations – Events, sponsorships, newsletter, house journal, annual reports, brochures, posters, pamphlets;
  - iii) Media relations – media release, media conference, media briefings, media visits and tours, ethical aspects of media relations;
  - iv) Digital public relations – use of websites, blogs, social media, planning and monitoring digital media campaigns, measuring impact of digital P.R.
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Ph. D. Entrance Test (P. E. T.)

Syllabus for the Subject: Indian Music

आचार्य उपाधि हेतु प्रवेश परीक्षा (पेट)

संगीत विषय के लिए पाठ्यक्रम

1. स्नातक तथा स्नातकोत्तर कक्षाओं के रागों का संपूर्ण शास्त्रीय अध्ययन (तुलनात्मक अध्ययन, समप्राकृतिक राग, रागांग), तालों का अध्ययन, स्वर सप्तक (भारतीय तथा यूरोपीय स्वर सप्तकों का अध्ययन तथा तुलना)
2. गायकी एवं नायकी, संगीत के घरानों का इतिहास (विशेषताओं के साथ), सद्यःस्थिति
3. संगीतविषयक ग्रंथों का अध्ययन:

भरतनाट्यशास्त्र	-	भरत मुनी
संगीत रत्नाकर	-	शारंगदेव
रागतत्त्वविबोध	-	पं. श्रीनिवास
संगीत दर्पण	-	पं. दामोदर
प्रणव भारती	-	पं. ओंकारनाथ ठाकुर
4. १) लोक संगीत - मायने एवं परिभाषा; राजस्थान, पंजाब, महाराष्ट्र एवं उत्तर प्रदेश के मुख्य लोकसंगीत प्रकार  
२) लोकसंगीत तथा शास्त्रीय संगीत का अंतःसम्बन्ध
5. प्रबंध - प्राचीन तथा आधुनिक
  1. पार्श्वसंगीत
  2. वाद्यवृन्द
  3. वृन्दगायन

#### 4. नाट्यसंगीत

6. ध्वनि शास्त्र - ध्वनि की उत्पत्ति, वहन तथा ग्रहण, आन्दोलनसंख्या तथा वीणा के तार की लंबाई का परस्पर सम्बन्ध  
स्वर प्रस्तार, खंडमेरू तथा सारणा चतुष्टई
7. गत 25 वर्षों में शास्त्रीय संगीत में आये स्थित्यंतर (बदलाव):
  1. रिमिक्स: मायने, आवश्यकता एवं उपयुक्तता
  2. भारतीय संगीत पर पाश्चात्य संगीत का प्रभाव
  3. संगीत तथा भूमंडलीकरण
  4. सौन्दर्यशास्त्र की संकल्पना: भारतीय तथा पाश्चात्य शास्त्रज्ञों का मत
8. १) संशोधन पद्धति (Research Methodology) मायने, परिभाषा, प्रकार, दिशाएं, पड़ाव, मूल्यमापन
  - 2) ऐतिहासिक, वैज्ञानिक शास्त्रीय दृष्टिकोण से संगीतविषयक निबंध
  - 3) संगीत समीक्षा - वा. ह. देशपांडे तथा गोविंदराव टेंबे इनका समीक्षा के क्षेत्र में योगदान

**Syllabus for Pet – II Examination**  
**Name of Subject: Music,**  
**Faculty of Arts, Subject Code: 4.03**

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**विषय :- आचार्य पदवी नोंदणी प्रवेश परीक्षा पेट-२ साठी अभ्यासक्रम (Syllabus).**

१. पदवी व पदव्युत्तर झालेल्या सर्व रागांचा शास्त्रीय अभ्यास (तुलनात्मक अध्ययन, समप्रकृतिक राग, रागांग) राग व तालांचा अभ्यास, स्वर सप्तक (भारतीय आणि युरोपीयन स्वर सप्तकाचा अभ्यास व तुलना)
२. गायकी व नायकी, संगीतातील घराणी व इतिहास (वैशिष्ट्यांसह) सद्यस्थिती.
३. संगीत विषयक ग्रंथांचा अभ्यास ,
  १. भरतनाट्यशास्त्र — भरतमुनी
  २. संगीतरत्नाकर — शारंगदेव
  ३. रागतत्त्वविबोध — पं. श्रीनिवास
  ४. संगीतदर्पण — पं. दामोदर
  ५. प्रणवभारती — पं. ओंकारनाथ ठाकूर
४. १. लोकसंगीत अर्थ आणि व्याख्या (राजस्थान, पंजाब, महाराष्ट्र, उत्तरप्रदेश) येथील प्रमुख लोकसंगीत प्रकार.  
 २. लोकसंगीत आणि शास्त्रीय संगीत यातील संबंध.
५. प्रबंध प्राचीन आणि आधुनिक —
  १. पार्श्वसंगीत
  २. वाद्यवृंद
  ३. वृंदगायन
  ४. नाट्यसंगीत
६. ध्वनीशास्त्र, उत्पत्ती वहन आणि ग्रहण आंदोलन संख्या व विणेच्या तारेच्या लांबीचा परस्पर संबंध.  
 स्वरप्रस्तार, खंडमेरु व सारणा चतुष्टय.
७. २५ वर्षांतील शास्त्रीय संगीतातील स्थित्यंतरे—
  १. रिमीक्स व पयूजन संकल्पना — अर्थ, गरज व उपयोगिता
  २. भारतीय संगीतावर पाश्चात्य संगीताचा प्रभाव
  ३. संगीत व जागतिकीकरण
  ४. सौंदर्यशास्त्र संकल्पना भारतीय व पाश्चात्यांचे मत.
८. १. संशोधन पद्धती — अर्थ, व्याख्या, प्रकार, दिशा, टप्पे, मुल्यमापन.  
 २. ऐतिहासिक वैज्ञानिक शास्त्रीय दृष्टीकोनातून संगीत विषयक निबंध  
 ३. संगीत समिक्षा—  
 वा. ह. देशपांडे, गोविंदराव टेबे यांचे समिक्षेतील योगदान.

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