

## **The West Bengal Madrasah Service Commission**

### **ANTHROPOLOGY (PG) Class : XI-XII**

#### **BIOLOGICAL ANTHROPOLOGY**

**Section I:** Aim, Scope and Branches of Biological Anthropology and its development in India.

**Section II:** Anatomy and Morphology.

1. Morphological features of man (*Homo sapiens, sapiens*)
2. Study of human skeleton: names and position of bones.
  - (a) Skull: study of different norms.
  - (b) Post cranial osteology: Vertebral column, Pectoral girdle, Thorax, Pelvis, Upper and lower extremities.
3. Determination of sex from skull and pelvis.
4. Anatomical modifications in the skeleton as a consequence of evolution bipedalism.

**Section III:** Primates and Evolution of man

1. The Order Primates: General Characters (or evolutionary trends)
2. Classification of the Order : Simpson and Van Valen
3. Study of living Primate's family with special reference to their morphology, distribution and behaviour.
4. Comparative morphology and anatomy of living anthropoid apes: Asian and African.
5. Study of fossil apes: *Parapithecus*, *Dryopithecus*, *Sivapithecus*, *Ramapithecus*.
6. Study of proto-hominids: *Australopithecus* (*afferensis*, *africanus*, *robustus* and *boisei*)
7. Evolutionary theories: Lamarckism, Darwinism and modern synthesis.

#### **Palaeoanthropology and Prehistory**

##### **Group A: Palaeoanthropology and Prehistory**

1. Basic concept and approaches of Palaeoanthropology with special reference to India.
2. Environmental background of human evolution.
3. Biocultural process and mechanism of emergence and evolution of man
4. Main stages of human evolution and ancestral hominoid stalk (*Aegyptopithecus zedaxi*)
5. Origin of the genus *Homo*: *Homo habilis*, *Homo erectus*, (Java man, Peking man, Olduvai man and Narmada man)
6. Emergence of species *Homo sapiens*.

- (a) Homo sapiens Neanderthalensis Progressive and Conservative (La chapelle, Tabun and Skhul finds)
- (b) Homo sapiens sapiens Cro Magnon, Grinaldi and Chanclade, finds.

### Group B: Prehistory

1. Methodology in prehistory and its difference with Archeological methods.
  - a) Exploration, b) Excavation, c) Collection d) Dating
  - e) Preservation f) Classification and Interpretation
2. Methods of dating : Absolute and Relative
  - a) Absolute methods- C-14, K-Ar, Fission Track, thermoluminiscence, Amino Acid, Racemization, Dendrochronology and Archaeomagnetism, Flurine Test.
  - b) Relative methods – Stratigraphy and Type Technology and associate finds.
3. Sequence of Prehistoric cultures of the Old World
  - a) Palaeolithic / Early Stone. Age cultures of Europe, India and Africa (East Africa –Olduval george)
  - b) Mesolithic cultures of Europe and India (Bagor, Langhnaj and Birbhanpur)
  - c) Neolithic General features and distributions (Europe and India). Indian site study: Burzaliom Bellary.
  - d) Megalithic monuments of India.
4. Indus Valley Civilization with special reference to distribution: Town planning, Trade, Pottery and Religion.

## SOCIAL AND CULTURAL ANTHROPOLOGY

### Group A : Social Anthropology

1. Aim, Scope and Branches of Social Anthropology, Relationship with other disciplines of Social Science, Development of Social Anthropology in India and abroad.
2. Brief Introduction to the concepts: Society, Group, Community, Unit, Social Institutions, Social Organizations, Social System, Social Structure, Social Process, Social Exchange.
3. Introduction to the Themes: Kinship components (Family, Lineage, Clan, Phratry, Moity, Kindred). Kinship terminological systems, Gender, Tribe, Caste, Class, Marriage, State, Religion, Property and inheritance. Division of labour, village and Socialization.
4. Social Organization of Indian Tribes (Santal, Toda,, Garo, Toto, Andaman Islanders) and Non-Indian Tribes (Arunta, Nuer and Eskimo).

## **Group B : Cultural Anthropology**

1. Aim, Scope and Branches of Cultural Anthropology, Relationship with other disciplines of Social Science, Development of Cultural Anthropology in India and abroad.
2. Brief Introduction to the concepts: Culture, Technology, Trait, Trait-Complex, Pattern, Culture area, Universals of Culture. Diffusion. Symbol. World-view, Cognition, Integration, Phenomenon, Acculturation, Enculturation.
3. Contemporary cultures:
  - a) Modes of subsistence: Gathering, Hunting, Fishing, Pastoralism, Raising of Crops. (Shifting and Settled)
  - b) Forms of habitation and spatial organization, Clothings and decoration, Food processing, technique of fire making and Tribal craft.
  - c) Introduction to other Themes  
Power and Politics: Myth, Magic and religion, Law, Order and War, Art, Education, Music and Dance, Life cycle, Witchcraft. Sorcery, Divination, Cults.
4. Study of Material Cultures of Indian tribes (Santal, Toda, Garo, Toto and Andaman Islanders) and Non-Indian Tribes (Arunta, Nuer and Eskimo)

## **Group- A Human Genetics**

1. Biological basis of inheritance
  - a) Structure and function of animal cell
  - b) Somatic and germ cell
  - c) Cell division: Significance of meiosis
  - d) Gametogenesis
  - e) Chromosomes and DNA-Human Karyotypes.
  - f) Some Genetic terms : Codon, exons, intron, genetic code, lethality and epistasis.
2. Mendel's laws of inheritance
3. Criteria of inheritance of Mendelian traits in man Autosomal dominant Autosomal recessive. Sex linked (X and Y linked); Sex limited and Sex controlled \ Multiple allelism.
4. Brief outlines of methodology of Human Genetics : Pedigree method: Twin method: Population genetic method (gene frequency; estimation e.g. Bernstein method for ABO blood groups)
5. Brief outline of Population Genetics Hardy Weinberg Equilibrium Law; Mutation, Selection, Drift, Admixture.

## Group-B: Population Biology

1. Definition, Concept and misconception of Race (Historical development)
2. (A) Static approach – typological concept  
(B) Dynamic approach Population genetical concept (race as a Mendelian population)  
(C) Ecological concept (geographical, local and micro races);  
(D) Univariate and Multivariate approaches in assessing racial affinities (Population affinities)  
(E) Special categories of races / populations (e.g. Ainu morphologically Special) but genetically special.
3. Traits used for assessing population affinities.
4. Qualitative: ABO blood groups Skin colour, Hair form, Nose and Dermatoglyphic and ridge count.
5. Racial groups of mankind. Typological (Haddon), Population genetical (Boyd) and Ecological (Garn).
6. Racial classification of India (undivided) after Risley, Guha and Sarkar
7. Population variation in India: Regional Approach (Mahalanobis), Cline (Sarkar)
8. Human adaptation to Environment: Hot adaptation Nilotic Negro, Cold adaptation Eskimo.