



WEST BENGAL STATE UNIVERSITY
Under Graduate Curriculum for the B. Sc. (Honours) degree course
in
ANTHROPOLOGY
w.e.f. 2009-10 academic year

COURSE STRUCTURE

Full Marks: 800 (Theoretical: 500, Practical: 300)

Part-I

Paper-I: Anthropology- Foundations and Social-Cultural Study	100
Paper-II: Biological and Archaeological Anthropology	100

Part-II

Paper-III: Palaeoanthropology & Social-Cultural Anthropology	100
Paper-IV: Practical (Three branches)	100

Part-III

Paper-V: Biological and Archaeological Anthropology	100
Paper-VI: Archaeological and Social-Cultural Anthropology	100
Paper-VII: Practical: Biological Anthropology	100
Paper-VIII: Field-Work and Field Exploration/ Museum visit	100

PART-I

Paper-I: Anthropology- Foundations and Social-Cultural Study

Group- A: Foundations of Anthropology

(25 marks)

Anthropology: Meaning, Definition, Aim & Scope, Distinctiveness- holism, participant observation, comparison & relativism. Branches of Anthropology- Physical/ Biological, Archaeological, Social- cultural & Linguistics. Relationship of different branches of Anthropology with different disciplines- Life science, Earth Science, Medical Science, Social Science, Humanities, Environmental Sciences. Relevance of Anthropology. Academic Anthropology and Applied Anthropology.

Origin and Development of Anthropology: Worldwide and Indian context.

Biological Anthropology: Aim & Scope. Different branches and area of Study. Development of Biological Anthropology- Historical background.

Archaeological Anthropology: Definitions of the terms Prehistory, Archaeology & Palaeoanthropology, Aim & Scope, Relevance of studying Prehistoric Archaeology & Palaeoanthropology. Palaeoanthropology as a Conjunctive Approach.

Social-Cultural anthropology: Aim & Scope. Basic concepts- Social Anthropology, Cultural Anthropology – British School & American School. Different branches of Social-cultural Anthropology (Theoretical & applied).

Field Work: Meaning of Fieldwork in different branches of Anthropology. Importance of Field work in Anthropology. Historical Genesis of fieldwork in Anthropology.

Group-B: Social-Cultural Anthropology.

(75 marks)

Basic Concepts: Society, Group, Community, Social process, Social Institution, Social Structure (Radcliffe Brown, Levi-Strauss, Edmund Leach), Social Organization (Raymond Firth), Role & Status, Social Network, Material Culture & Technology.

Concept of Culture (Tylor, White, Linton, Bose, Geertz),

Culture Studies: Trait, Element, Trait Complex, Culture Area & Age Area (Wissler), Diffusion, Acculturation & Enculturation; Culture & Civilization, Culture & Personality; Culture & Language; Culture as symbols; World view.

Social Unit & Social Institution:

- a) Family: Definition, Types, Basic structures & Functions, Changes due to industrialization & Urbanization.
- b) Marriage: Definition, Type, function, Preferential & Prescribed forms of marriage, Ways of acquiring mates , Forms of marital transaction(Dowry, Bride price, presentation), Post marital residence, Divorce & Remarriage.
- c) Kinship: Concept & Definition of Kinship, Structure of kinship (Murdock), Function of kins in everyday life & ceremonial occasion (Avoidance, Joking, Couvade, Tekonymy) Kinship system (Hawaiian, Eskimo, Sudanese, Iroquis, Crow-Omaha). Descent: Types & Functions : Unilateral, Bilateral & Double descent.
- d) Other concepts with examples: tribals in India, Tribe, Moiety, Phratry, Lineage, Clan.
- e) Economic System: Characters of primitive economy; Reciprocity & Redistribution; Kularing; Economic and Non-Economic characters of tribal market.

- f) Technology and Material culture; Anthropological explanations, relationship between technology and material culture; Different modes of subsistence- Hunting & Gathering, Shifting cultivation, Pastoralism, Settled cultivation (methods and technology).

Paper-II: Biological and Archaeological Anthropology

Group- A: Biological Anthropology

(50 marks)

Genetics and Evolution:

Theories of Biological Evolution: Evolution of evolutionary thoughts, Lamarkism and Neo-Lamarkism, Darwin and principles of Natural Selection, Directional, Stabilizing and Diversifying selection; Mendel's theory, mutation theory; Neo-Darwinism and Modern synthesis. Evidences of Biological evolution- morphological, anatomical, vestigial, embryological, palaeontological, physiology & biochemical, genetical.

Ecology and adaptation; basic concepts of Abiotic and biotic ecology, Adaptation -temperature, high altitude and Nutrition.

Principles of Evolution: Convergence, Divergence, Parallelism, Adaptive radiation, Irreversibility; Cope's rule and Dollo's rule. Extinction.

The biological basis of life: cell-its structure and functions, Identification and classification of chromosomes; Cell division- Mitosis and its significance, meiosis and its significance; human chromosome set and karyotype, Recombination; formation of gametes- spermatogenesis and oogenesis, DNA structure and replication, RNA- mRNA and tRNA, Protein synthesis.

Heredity and Evolution: Mendel's Experiments, Monohybrid and Dihybrid cross; Principles of Segregation and concept of dominant and recessive, genotype and phenotype, homozygous and heterozygous, back cross and test cross; Principle of Independent assortment; Punnett squares.

Sources of variability: Genetic recombination- segregation and crossing over; Mutation; Genetic drift; Gene flow.

The origin of species- species and speciation; Morphological, Genetic, Biological and Evolutionary species concept; Anagenesis and Cladogenesis; Polytypic, Allopatric, Parapatric and Sympatric speciation; Mechanism of speciation and Population genetics (concept of gene pool and Hardy-Weinberg equilibrium).

The Living Primates:

Characteristics of Mammals: Reproduction (placental mammals, prenatal and postnatal care), Temperature regulation (homeotherms), Teeth (heterodontic, types and dental formula), Skeletal structure, Brain and Behaviour.

Primate characteristics: Morphology and Evolutionary trends- grasping and prehensile hands, Vision (binocular stereoscopic vision), The brain and behaviour (learning), Reproduction and Care of Offspring (mother-infant bond, paternal care), Social Structure. Primate adaptations.

Primate Behaviour (brief concepts, examples and types, where applicable): Anatomically based activities- Habitat (arboreal, terrestrial, semi terrestrial), Locomotion (vertical clinging and leaping, semi-brachiation, brachiation, knuckle walking, quadrupedalism, bipedalism), Dietary habit (insectivore, folivore, frugivore, granivore, gummivore, Omnivore), Period of activity (diurnal, crepuscular, nocturnal);

Primate Social Behaviour- Mother-Infant relationship, Social Groups (single female and her offspring, monogamous, polyandrous, polygynous, multi male- multi female, fission-fusion society), Dominance hierarchy (alpha male, alpha female), Core area and Home range. Sexual dimorphism, Grooming, Language and Communications (olfactory, tactile, visual and auditory signals),

Classification of Primates (with categories, examples and distribution)-(i) Simpson and (ii) Szalay & Delson; Prosimii and Anthropoidea; Platyrrhines and Catarrhines; Cercopithecoidea and Hominoidea; Hylobates, Pongids and Hominids.

Human Skeletal anatomy and functional morphology of bone as a part of total skeleton: classification of bones, anatomical positions and their functions.

Morphological and anatomical characteristics of Man, Gorilla, Chimpanzee, Orangutan and Gibbon.

Man's place in Animal Kingdom: Distinctive Human traits- Physical and behavioural; tool making, language. External morphological features of Man in relation to evolution. Skeletal modifications as a consequence of evolution- erect bipedals, brain development and grips.

Group-B: Archaeological Anthropology

(50 marks)

Basic concepts: Tool, Artifact, Industry, Assemblage. Periodization in Prehistory -A brief introduction to different cultural stages in pre-history and proto history (Three -Age system, C. J. Thomsen, 1863) Concept of culture in Prehistory;

Field Archaeology: Ideas of site survey and excavation, Different methods of exploration/site survey; Extensive and Intensive survey, Use of GIS (Geographical Information System), Different stages of excavation; pre excavation stage, actual phase of digging up, sondage or trial trench, horizontal excavation, vertical excavation, excavation of burial sites, recording of data, Differences between excavation and exploration.

Dating methods: Concept of chronology in prehistory, Relative and absolute methods of dating, Following dating methods are to be studied based on the points; Discovery, first use, datable materials, basic principles, formula, precautions, advantages and disadvantages, specific examples, Relative methods of dating; Stratigraphy, Typo- technology of prehistoric tools through different cultural stages in details, FUN estimation, Absolute methods of dating; Carbon 14, Potassium Argon (K/Ar), Dendrochronology, Thermoluminescence (TL), Archaeomagnetism. Differences between Absolute and Relative methods of dating.

Palaeo-environment: Concept of Geochronology, Geological Time scale; eras, periods, epochs, Definition and environmental background of Quarternary period, Basal pliestocene, Villafranchian, Causes of Ice age, Climatic fluctuation of Plietocene period in Europe Africa and India, Glacial and Pluvial zones, Stratigraphic evidences of Plietocene period for reconstruction of palaeoenvironment; Moraine, Glacio -fluvial deposits, River terraces, U Shaped Valley, Loess, Gravel and silt deposition, Palaeontological evidences, Importance of study palaeo environment in Palaeo anthropology and prehistory, Holocene period ; climatic stabilization.

PART-II

Paper-III: Palaeoanthropology & Social-Cultural Anthropology

Group- A: Palaeoanthropology & Prehistory

(75 marks)

The Fossil Primates and background of human evolution

Primate evolutionary history: Taxonomy- homology and Homoplasy; Primitive and derived traits; Approaches of classification- phenetics and cladistics; Geological time scale; Gradualism and Punctuated equilibrium; Micro and Macro- evolution; Meaning of genus and species.

Emergence of Primates: Paleocene epoch and continental drift, Eocene Prosimians- *Adapidae*, *Omomyidae*, Oligocene Anthropoids- *Parapithecidae*, *Propliopithecidae*, *Aegyptopithecus*, Miocene Apes –*Proconsul*, *Dryopithecus*, *Sivapithecus*, *Ramapithecus*, *Gigantopithecus*, *Kenyapithecus*,

The first Hominids-, *Australopithecus* and evolution of bipedal locomotion, Gracile Types (*A. afarencis*, *A. africanus*) Robust types (*A. robustus*, *A. boisei*), Outline of the Pongid-Homonid splits, Major hypothetical lines of Primates evolution from Parapithecidae to Australopithecinae.

Emergence of Genus *Homo* and the origin of culture: Man's capacity for culture, Bio-cultural evolution of Man and the process of Hominization, Early Homo: *Homo habilis* and *Homo rudolfensis*, Expansion of the brain, Reduction of the face, teeth and jaws, Oldwan culture.

Homo erectus : *Homo erectus erectus*, *Homo erectus pekinensis*, Narmada Man, Lower palaeolithic culture- Pebble tool culture- Olduvai Gorge in Africa, Soan culture in India, Acheulean culture in Europe- Abbevillian, Acheulean, Clactonian, Levalloisian, Madrasian and Narmada culture of India, Big game hunting, development of cooperation and language, Invention of fire.

Emergence of *Homo sapiens* : Transitional phase- *Homo heidelbergensis*, *Homo sapiens neanderthalensis*- Progressive Neandertals (Mount Carmel, Frontchevade, Steinheim, Swanscombe) Classic Neandertals(La-Chapelle-Aux – saints), Neanderthals problem, Middle Palaeolithic culture (Mousterian culture) of Europe, Burials and concept of soul, Flake tool complex of India- Bellan Valley, Kalegaon and Nevasa (Maharashtra), Narmada Valley (preceding section).

Emergence of *Homo sapiens sapiens* : Single origin, multiregional and intermediate theory of Human origins; Cro-Magnon, Grimaldi, Chancelade, Upper Palaeolithic Culture- The last Ice age, Advanced Hunter gatherer, Evolution of Blade and Burin Technology, Use of bone tools, Upper Palaeolithic culture of Central and Western Europe- Châtelperronian, Perigordian, Aurignacian, Gravettian, Solutrean, Magdalenian, Emergence and development of art- Cave art and Home art (Painting, Engraving and Sculpture), Upper palaeolithic culture of India- Renigunta, Bhimbetka, Belan valley, Bagor II.

N.B. The above mentioned fossil evidences should be studied in the perspective of i) their chronology, environmental background, distribution, salient anatomical features, and phylogeny to understand the process of biological evolution. ii) stratigraphy, tool typology, technology, distribution, type site, chronology, Human responsible for the culture to understand the process of cultural evolution.

Group-B: Social-Cultural Anthropology.**(25 marks)**

Political System: Concept of, Band, tribe and State as a political entity. Traditional panchayat/ political system of tribal communities (Chenchu, Toda, Garo & Santal).

Law & Order: Characteristics of Primitive Law - Oath, Ordeal, forms of punishment
Sanction (Case study from Chenchu, Toda, Garo & Santal)

Religion: Anthropological approach to the study of Primitive forms of Supernatural practices- Animism, Animatism, Totemism, Taboo, Ancestral worship, Divination, Cult, Shamanism. Role of Religion in Affluent society.

Other forms of practices- Magic, Sorcery, witchcraft. Rituals.

Study of Material Culture and Social Organization of following tribes: Santal, Garo, Toda, Chenchu.

Paper-IV: Practical (Three branches)**Group- A: Biological Anthropology****(60 marks)**

1. Identification of Human Skull bones: Human cranium- its different view; Identification of Frontal, Parietal, Temporal, Occipital, Maxilla, Zygomatic, Ethmoid, Sphenoid, Mandible (side and sex identification where applicable) (5 marks)
2. Identification of Human post-cranial bones- Axis, Cervical, Thoracic, Lumber vertebrae, Sacrum, Clavicle, Scapula, Humerus, Radius, Ulna, Pelvis, Femur, Tibia, Fibula (side and sex identification where applicable) (5 marks)
3. Identification of Human teeth- deciduous and permanent. (5 marks)
4. Identification of Anthropoid Ape skulls (Original/ cast/ photographs: Gorilla, Chimpanzee, Orang-Utan, Gibbon. (5 marks)
5. Identification of Fossils (Cast/ Photographs): Fossil Apes- Parapithecus mandible, Dryopithecus mandibular fragment, Sivapithecus, Ramapithecus; Fossil Protohominids- Australopithecus africanus, Australopithecus afarensis; Hominids-Homo habilis, Homo erectus (Java and Peking man), Neanderthal (La-Chapella-aux-saints), Homo sapiens sapiens- Grimaldi, Chancelade, Grimaldi. (5 marks)
6. Craniometry: Direct measurements only; on atleast 5 human skulls (15 marks)
Linear: Maximum Cranial Length, Maximum Cranial Breadth, Basion-Bregma Height, Auriculo-Bregmatic Height, Upper facial Height, Bi-zygomatic Breadth, Nasal length, Nasal breadth, Orbital breadth, Orbital height, Least Frontal Breadth, Palatal Length, Palatal Breadth, Length of Occipital foramen, Breadth of Occipital foramen, Mandibular Length, Bi-condylar Breadth.
Indices (classification where applicable) : Length-Breadth Index, Length-Height Index, Length-Auricular Height Index, Breadth-Height Index, Upper Facial Index, Nasal Index, Orbital Index, Jugo-Frontal Index, Palatal Index, Mandibular Index.
Chord: Frontal chord, Parietal chord, Occipital chord.
Arc: Frontal Arc, Parietal Arc, Occipital Arc, Sagittal Cranial Arc, Maximum Horizontal Circumference.
Angular: Metopic angle, Facial profile angle, Nasal profile angle, Profile angle of Nasal roof, Alveolar profile angle, Frontal angle of schwalbe, Bregma angle of schwalbe, Lambda angle of schwalbe.
7. Osteometry: Direct measurements; on at least 3 long bones of each type, (10 marks)

Humerus: Max. Length, Breadth of Proximal epiphysis, Breadth of distal epiphysis, Least Girth of Shaft, Caliber Index

Radius: Max. Length, Physiological Length, Least girth of Shaft, Transverse diameter of Shaft, Caliber Index

Ulna: Max. Length, Physiological length, Least girth of Shaft, Breadth of Olecranon, Height of Olecranon cap, Caliber Index

Femur: Max. Length, Physiological length, Trochantric length, Sagittal diameter of middle shaft, Transverse diameter of middle shaft, Robusticity Index

Tibia: Max. Length, Physiological length, Mid-shaft circumference, Least Circumference of shaft, Caliber Index

Fibula: Max. Length, Mid-shaft Circumference, Minimum Circumference of shaft, Caliber Index.

8. Laboratory Note Book (5 marks)
9. Viva-Voce. (5 marks)

Group- B: Archaeological Anthropology (20 marks)

Procedure of drawing tool, Identification, Drawing and Labelling of Typo-technological features, cultural age, probable use and method of hafting of prehistoric tools

Core Tools- Hand Axe, Cleaver, Chopper

Flake Tools: Clactonian flake, Levalloisean Flake, Scrapers (Side, End, Round, Denticulate, Notched), Point

Blade Tools: Blade Knife, Blunted back Blade, Awl, Burin

Point leaf shaped: Laurel Leaf point, willow leaf point

Bone Tools- Harpoons (Single barbed, Double barbed Multi barbed), Baton. Spear and Dart Thrower

Microliths: Geometric (Lunate, Triangle, Trapeze), Non Geometric microliths

Polished Tools: Celt (Axe and Adzes), Shouldered Celt, Chisel, Hammer stone, Ring stone

Potsherd: One potsherds of Neolithic period

N.B. In absence of original specimens, cast and photographs may be used.

Practical (12 marks); Laboratory Note book (5 marks); Viva-voce (3 marks)

Group-C: Social-Cultural Anthropology: Evolution of Technology (20 marks)

Structural and functional comparison:

Set A: Hand axe (Paleolithic) – Point (Paleolithic) – Arrow Head (Contemporary)

Set B: Hand axe (Paleolithic) –Celt (Neolithic) – Wooden Hoe (Contemporary) – Bengal Plough (Contemporary)

Set C: Chopper (Paleolithic) – Cleaver (Paleolithic) – Big Knife (Contemporary) – Axe (Contemporary) – Tangi (Contemporary)

Set D: Cleaver (Paleolithic) – Shouldered Celt (Neolithic) – Adze (Contemporary)

Structural comparison in different ecological Zones / Areas:

Set A: Hoe – Bengal variety, Chota Nagpur variety, North East variety

Set B: Plough - Bengal variety, Chota Nagpur variety, North East variety

Set C: Trap – Box, Funnel, Cylindrical (Doar)

Set D: Net–Hand operated (Stagnant water), Automatic (Flowing water), Throwing (Marshy Area)

* N.B. In absence of original specimens, photographs or models may be used.

Practical (10 marks); Laboratory Note Book (5 marks); Viva-Voce (5 marks)

PART-III

Paper-V: Biological and Archaeological Anthropology

Group- A: Biological Anthropology

(75 marks)

Human Genetics: Definition, aims and application of Human Genetics and its relevance in anthropology; Difficulties in studying Human Genetics.

Methods of studying Human Genetics: Twin and co-twin control method, Pedigree method, Family data method, Adopted children method, Population Genetics method, Biochemical and Cytogenetical method, Statistical method.

Mendelian inheritance in Man: inheritance and examples of autosomal and sex linked inheritance in Man- Autosomal Dominant, Autosomal Recessive, X linked Dominant, X linked Recessive and Y linked inheritance.

Exception to Mendelian inheritance and brief concepts of polygenic inheritance, intermediate expression, co-dominance, multiple alleles, modifying and regulator gene, incomplete penetrance, pleiotropy, stuttering alleles, sex related somatic effects (sex-limited, sex-controlled, genome imprinting), Mitochondrial inheritance, Environmental influences.

Definition and basic concepts of Linkage and Crossing over, non-disjunction, dosage compensation.

Inheritance of complex traits: continuous and discontinuous traits, quantitative traits, Examples of polygenic and multifactorial inheritance in Man (basic concepts) - Stature, eye colour, Finger dermatoglyphics, Blood pressure.

Human polymorphisms: ABO, Rh blood group, PTC taste, Red green colour blindness, abnormal haemoglobins- HBS, HBE, HBD, Thalassaemia, G6PD deficiency, Haptoglobins.

Chromosomal and Genetic disorders: Normal karyotype (Denver system), Mutation and Chromosomal disorders; Mutation- detecting mutation and measuring mutation rates, causes- genetic hazards of radiation and chemical mutagenesis; Structural Chromosomal anomaly- deletion, duplication, inversion, translocation (reciprocal and robertsonian) iso-chromosome.

Variation in Chromosome number- poliploidy, aneuploidy, monosomy, trisomy.

Karyotype and Characteristics of Cri-du-chat, Patau, Edward, Down, Turner and Klinefelter's syndrome.

Population Genetics: Hardy-Weinberg equilibrium- applications and calculation of allele frequencies; Causes of changes in allele frequencies, Mathematical derivations of autosomal traits.

Human population variation: definition and concept of the term Race, historical background, Different approaches of classifying human population- typological, populational and clinal; Local, micro and Geographical race, Conventional racial criteria, Racial classification of Human population, Racism, UNESCO statement on Race.

Human Growth: definition and concepts of Growth, development and maturation; Methods of studying Human Growth and Development- longitudinal, cross-sectional and mixed longitudinal; Growth curves- distance, velocity and acceleration; Milestones in Growth- fertilization, development of embryo, foetus (stages of foetal development), childhood, adolescence, adult and aging; concept of growth spurt and retarded growth.

Nutritional requirements - the basic nutrients, micro and macro- nutrients, malnutrition- over and under nutrition.

Group- B: Archaeological Anthropology

(25 marks)

Development of post Pleistocene culture

Mesolithic culture :Post-Pleistocene environmental changes and cultural adaptation, Development of microlithic technology, Mesolithic culture of Europe- Azilian, Kitchenmidden, Tardenoisian, Maglemosian, Ertebolle, Natufian (Epipalaeolithic, beginning of Agriculture), Mesolithic culture of India- Bagor, Langhnaj, Adamgarh, Teri, Birbhanpur, Sarai-Nahar-Rai, Microlithic problems of India.

Neolithic culture and emergence of village farming way of life: Neolithic revolution (V.G. Childe), domestication of plants and animals, , Neolithic stone tool technology, pottery, habitation, Economic and social consequences of food production- settled life, population growth, craft specialization, Neolithic culture of Europe, Nuclear zone of food production- Near East and Southeast Asia, Neolithic culture of India, North India- Burzahom, South India- Bellary, Brahmagiri, Sanganakallu, Tekkalkota, Eastern and North Eastern India- Assam-Deojali Hading, Bengal- Bihar- Orissa Culture complex.

Chalcolithic Culture of India: Use of Metal, Technology, Tools, Pottery (In Details), Central India-Kayatha culture, Ahar Culture, Northern Deccan- Malwa and Jorwe culture

Beginning of Iron Age and second Urbanization: Black and Red ware culture(BRW), painted Grey ware Culture(PGW), Northern- black polished culture (NBPW), Iron and Megalithic burials types- Menhirs, Alignments, Cairn circle, Dolmen, Umbrella Stone(Kodakkal), Hood Stone (Toppikkal), Cists, Rock cut caves, Living Megaliths of South India.

Paper-VI: Archaeological and Social-Cultural Anthropology

Group- A: Archaeological Anthropology

(25 marks)

Archaeological approaches: Environmental archaeology, Experimental Archaeology, Cultural Ecology, Ethno archaeology- Definition, scope and methods of Ethno archaeology, construction of past material culture, Settlement pattern, technology, ceramics etc. Important example of ethno archaeological study of living Hunter Gatherer society- Australian aborigines, Studying culture history, Reconstructing past Human behaviour, Explaining why cultural change has taken place, Preservation of cultural heritage of India.

Archaeological Theory: Antiquarian Stage, The impact of Darwin, Culture history, Theories of food production(Childe and Braidwood), Theories of cultural development- Tylor (1871), V.G.Childe(1935), Braidwood (1976)- savagery, Barbarism and Civilization, Diffusionism, Processual Archaeology, New Archaeology (Binford 1972, 1989), Post Processual Archaeology (Ian Hodder)

Development of Palaeoanthropology and Prehistory in India: Lydekker (1884), The Yale Cambridge Expedition (1935), Lewis (1936), Pandey and Sastri (1958), Arun Sonakia (1982), Robert Bruce Foote (1863)- the father of Indian prehistory, De Terra and Paterson, Sir Mortimer Wheeler, H.D. Sankalia, D. Sen, D. P. Agarwal.

Group- B: Social-Cultural Anthropology

(75 marks)

Indian Anthropology

Early civilization: Indus valley Civilization , Origin and development of Harappan civilization, Geographical distribution, extent and settlement pattern, Important excavated sites, Town planning and architecture, Trade, Economy, Technology and Art, Harappan script, Socio- political and Religious life, Decline- various causes.

Racial (Risley, Guha, Sarkar), Ethnic, Religious and Linguistic elements in Indian population.

Village Studies: Significance of Village Studies in India. Definition, features, types, Historical Development of village studies in India. Concepts developed through village studies in India. Case study from any two villages (eastern and western India).

Indian Social System:

- i) Tribe: Definition, Characteristic features of tribal society. Classification of tribal population in India on the basis of Geographical distribution, Language, & Economy.
- ii) Caste: Concept of caste. Definition. Traditional Characteristic features of Caste System. Changes in Caste System owing to Colonial, industrial, & urban factors. Hindu jajmani system. Social Mobility, Faction.
- iii) Class & Status: Definition of Class & Status. Characteristic features of class & status societies. Differences between Caste, Class & status.

Social Change: Concept, Factors for social change in Indian Society. Theories related to Social Change in India: Sanskritization, Westernization, Universalization & Parochialization, Industrialization, Urbanization.

Material Traits in India: Housetype & Plough.

Life and work of some Indian Anthropologists- SC Roy, BS Guha, I Karve, DN Majumder, NK Bose, MN Srinivas, LP Vidyarthi..

Theoretical Explanations of Culture - Brief Concept.

19th Century Classical Evolutionism – Tylor & Morgan. Neo Evolutionism -White & Steward

Diffusionism – German, British & American School.

Historical Particularism & Cultural Relativism (Boas)

Functionalism- Malinowski.

Structural – Functionalism – Radcliffe Brown.

Structuralism – C. Levi- Strauss.

Social Movements in India'

Defination & Background:

Santal Movement, Birsa Movement. Tebhaga Movement, Jharkhand movement,

Applied Anthropology:

- 1) Applied, Action, Development Anthropology – Meaning, Definition and brief outline of historical development & related empirical projects.
- 2) Tribal problems in India with special reference to Education, Health and Occupation. Constitutional definitions and safeguards for SC's, ST's and OBC's.
- 3) Poverty & Unemployment: Definition, Measurement. Social Welfare programs related to poverty alleviation & Employment generation. (IRDP, TRYSEM, ITDP, NREGP)
- 4) Local Self Government: Three-tier constitutional Panchayat system & other forms of local self Government. [Panchayat, Municipality & Corporation – Constitutional provision (Chapter, Article & Related amendments), Tenure, Membership, electoral mechanism, functions; its importance as a decentralization unit] .

Paper-VII: Practical: Biological Anthropology

(100 marks)

1. Somatoscopy:

(5 marks)

Skin colour: exposed and unexposed

Head Hair: form, colour, texture, quantity, whorl (number and type), hair limit.

Facial Hair: Beard and Moustache, Hypertrichosis of Ear.

Nose: depression of the nasal root, height of the nasal bridge, nasal profile, tip of the nose, inclination of the septum, nasal wings, shape and size of nostrils.

Eye: palpebral opening, eye fold, iris colour.

Ear: size, shape, prominence of helix, darwin tubercle, ear lobe size, ear lobe attachment, ear lobe form.

Lip : thickness.

Face: prognathism.

Relative length of fingers.

Behavioural Dimorphism- Handedness, Hand clasping, Arm folding.

2. Somatometry :

(30 marks)

Measurements: Maximum head length, Maximum head breadth, Auricular Height, Least frontal breadth, Bi-zygomatic breadth, Bi-gonial breadth, Head height, Total height, Nasal length, Nasal breadth, Nasal depth, Morphological facial height, Morphological superior facial height, Ear length, Ear breadth, Height vertex, Height tragus, Height acromion, Height radiale, Height stylium, Height dactylion, Sitting height vertex, Bi-acromian diameter, Hand length, Hand breadth, Foot length, Foot breadth, Body weight.

Indices: (classification where applicable): Cephalic Index, Length-Auricular height Index, Breadth-Auricular height Index, Morphological facial Index, Morphological Upper facial Index, Nasal Index, Jugo-frontal Index, Jugo-Mandibular Index, Ear Index, Nasal Elevation Index, Hand Index, Foot Index, Ponderal Index, Body Mass Index.

3. Dermatoglyphics :

(10 marks)

taking the prints of palm and finger tips.

Finger prints: identification of pattern types- Arch (plain and tented), Loops (ulnar and radial), Whorls (true, twin loop, lateral pocket loop, central pocket loop) calculation of Pattern Intensity Index.

Palm Prints: identification of a,b,c,d,t triradius; tracing of A,B,C,D mainline, Main line formula, draw and find out the value of atd angle.

4. ABO and Rh(D) Blood grouping:

(10 marks)

by direct slide method

5. PTC/ PTU tasting ability:

(5 marks)

only tasting ability (taster and non taster), following standard method

6. Colour vision test:

(5 marks)

by Ishihara's chart (1979)

7. Sex chromatin identification:

(5 marks)

from buccal smear, following standard method

8. Blood pressure :

(5 marks)

by standard non-invasive technique using sphygmomanometer.

9. Basic Statistics:

(10 marks)

Natures of data, Quantitative and Qualitative data, Discrete and Continuous variables, Tabulation of Data, Frequency distribution, Class interval, Class boundary and Class limit, Cumulative and Relative frequencies, Graphical representations,.

Measurements of Central tendency (Arithmetic Mean, Median, Mode) and Dispersion (Range, SD and SE of Mean).

10. Laboratory Note Book (10 marks)

11. Viva-Voce: (10 marks)

NB: Somatoscopy and Somatometry on atleast 10 living subjects, Dermatoglyphics on atleast 5 subjects, Blood groupings of atleast 5 subjects, PTC/PTU tasting ability of atleast 10 subjects, Colour vision test on atleast 10 subjects, Blood pressure of atleast 10 subjects, Sex chromatin on atleast 2 subjects of each sex,
Diagrammatic representation and measurement of mean, median, mode, SD and SE of means (where applicable)

Paper-VIII: Field-Work and Field Exploration/ Museum visit (100 marks)

Group- A: Field Work (85 marks)

Each student should undertake compulsory field training on any little known/ unknown community in any village or locality (tribal or multi caste) in India.

Duration: Not less than 15 days and not more than 21 days (excluding journey)

Before proceeding to field work at-least 20 lectures should be arranged for theoretical preparation and methodological issues on fieldwork.

As methodological issues during the field work are prime and very important, following points should be well acquainted with the students before proceeding fieldwork.

Ethnography / Field Work: Emic and Etic view, Synchronic and Diachronic study, Qualification etc.)

Methodology, Methods & Techniques , Selection of the locality/ people/ problem (Sampling/ Selection: Random, Purposive etc), contact making, rapport establishment, key informant Data Collection (Observation, Interview, Genealogy, Case Study, Narration, Questionnaire, Schedule), Field notes, Analysis data (Qualitative & Quantitative), Report writing etc.

Qualitative Research & Quantitative Research (, Case study analysis, Narrative analysis, Content analysis, Modes of analysis,

Guidelines for the Field Report

Importance of fieldwork in social - cultural anthropology

Aim & Object of the study

Methodology

General information of the studied area

The people and Demographic profile of the studied area

Some aspects of material life/ culture

Economic structure and principal occupation with a case study

Some aspects of Social Organization

Political structure (both traditional and non-traditional i.e. present panchayet system)

Life cycle rituals: Birth (conception, rituals and ceremonies), Childhood and adolescence.

Marriage (conception, premarital ceremonies, rituals, ceremonies, consummation of marriage,

post-marital ceremonies and post marital maintenance), Death (conception, rituals and ceremonies). In each of life cycle ritual at least two case studies (male and female perspectives) are to be given and data to be taken on general/ natural events.
Rituals and festivals of the locality / area with a brief narration.

Impact of development / Welfare programmes (both Governmental and non-Governmental).
Study of Development/ Welfare may consist of

- i. Education and literacy (formal and non-formal)
- ii. Health and family Welfare (including pregnancy, mother's health and childcare)
- iii. Media and communication
- iv. Drinking water, electricity
- v. Self employment
- vi. Employment guarantee programmes such as IRDP, NREP. ITDP, Employment guarantee like 100 days work scheme, etc.
- vii. Civic awareness and role of panchayet / municipality / other notified authority.
- viii. Environmental conservation and energy resources.
- ix. Irrigation, use of fertilizers and seeds.
- x. Nutrition programme and public distribution system.
- xi. Banking facilities, savings and investments or any other parameter.

References:

Books, Journals, Newspapers, periodicals, Government Documents, Unpublished documents etc.

Surname, name, year of publication, Title of the Book, Place of Publication: Name of the publisher (printed material to be underlined),

Surname, name, year of publication, Title of the Article, Name of the Journal, Volume (No):
Page number

Marks distribution:

Question from methodology (Written) -	20 marks
Evaluation of Field Report	50 marks
Viva-voce	15 marks

Group- B: Field Exploration/ Museum visit (Archaeological Anthropology) (15 marks)

Museum visit: Students will be taken on study tour to Museum (Indian Museum/ Ashutosh Museum/ Prehistory Museum of Anthropology Department, Calcutta University/ any other archaeological and Anthropological Museum of India) as part of their study programme. A report duly forwarded by the teachers should be submitted during practical examination for evaluation. The report to be written based on the following points, Introduction- Location, History and Different departments of the Museum, Aims of Museum study, Description of the artifacts - Museum No., Drawing, labeling, raw materials, designs, any symbolic aspect, probable use, technique and cultural age of any series of Prehistoric or Protohistoric artifacts (Tools/Pottery/ ornaments/ household

utensils/ Terracotta objects and figurines/ Metal artifacts etc.), analysis and interpretation, References, Photographs.

OR

Field exploration: Students will be taken on field to study the geomorphological features (Use of Topographic maps/ GPS, River Terraces, Exposed Stratigraphic layers and measurements, River, hill, streams, soil types and other physical features of the site, any cultural remains found from the site) A report duly forwarded by the teacher(s) to be submitted during practical examination for evaluation.

Marks distribution:

Field Report	10 marks
Viva-voce	5 marks

Evaluation of each 25 marks of theoretical Papers:

- 1 Essay type question out of 2 options (800-1000 words): $1 \times 10 = 10$ marks
- 1 Short Answer type questions out of 2 options (250-300 words): $1 \times 5 = 5$ marks
- 4 Definition/ Conceptual type questions out of 8 options (25-30 words): $4 \times 2 = 8$ marks
- 4 Multiple Choice type questions, no options: $4 \times \frac{1}{2} = 2$ marks