

**KURUKSHETRA UNIVERSITY,
KURUKSHETRA**

Scheme of Examinations and Syllabus

for

**B.Sc. Medical with Anthropology
as one of the subject**

Under

Choice Based Credit System (CBCS LOCF)
**(with effect from 2021-22 in phased manner for all affiliated colleges
in KUK)**

Programme Outcomes (POs) for UG courses of Faculty of Life Sciences

The students will be able to:

1. To develop skills in graduate students to be able to acquire theoretical and practical knowledge in fundamentals of biology in respective disciplines of plants, animals, microbes and environment.
2. To inculcate ability to critically evaluate problems and apply lateral thinking and analytical skills for professional development.
3. To create awareness on ethical issues, good laboratory practices and biosafety.
4. To develop ability in youth for understanding basic scientific learning and effective communication skills.
5. To prepare youth for career in teaching, industry, government organizations and self-reliant entrepreneurship.
6. To make students aware of natural resources and environment and its sustainable utilization.
7. To provide learning experience in students that instills deep interest in biological science for the benefit of society.

Programme Specific Outcomes (PSOs) for Anthropology subject of B.Sc. Medical

PSO 1 Students will gain knowledge of how evolutionary and historical processes have shaped primates and human ancestors.

PSO 2 Students will know about human diversity and how knowledge about human diversity should lead to a better understanding.

PSO3 Students will be able to describe how cultural system construct reality differently for various human group.

PSO4 Teaching of this subject will develop theoretical and practical knowledge of Anthropology which is base in their higher studies in Anthropology.

PSO5 Students will be familiar with approaches, techniques, methodology and study design commonly used in Anthropology Research.

PSO6 Teaching of this subject will also develop ability in youth to have understanding Anthropology with effective communication ability.

KURUKSHETRA UNIVERSITY, KURUKSHETRA

Scheme of Examination for B.Sc. with Anthropology as one subject under CBCS pattern w.e.f. 2021-22 in phased manner in all affiliated colleges (Govt. College, Sector-I, Panchkula)
Subject: Anthropology

Semester	Course	Paper(s)	Credits	Internal marks	External Marks	Total	Exam Duration	Contact Hour/Week	
I	CC- Anthropology	B-ANTH-101	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-102	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-103	2	10	40	50	4 hrs.	4 hrs.	
II	CC- Anthropology	B-ANTH-201	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-202	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-203	2	10	40	50	4 hrs.	4 hrs.	
III	CC- Anthropology	B-ANTH-301	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-302	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-303	2	10	40	50	4 hrs.	4 hrs.	
IV	CC- Anthropology	B-ANTH-401	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-402	3	15	60	75	3 hrs.	3 hrs.	
		B-ANTH-403	2	10	40	50	4 hrs.	4 hrs.	
V	DSE* Anthropology	B-ANTH-501(i)	B-ANTH-501(ii)	2	10	40	50	3 hrs.	2 hrs.
		B-ANTH-502 (i)	B-ANTH-502(ii)	2	10	40	50	3 hrs.	2 hrs.
		B-ANTH-503(i)	B-ANTH-503(ii)	2	10	40	50	4 hrs.	4 hrs.
VI	DSE* Anthropology	B-ANTH-601(i)	B-ANTH-601(ii)	2	10	40	50	3 hrs.	2 hrs.
		B-ANTH-602(i)	B-ANTH-602(ii)	2	10	40	50	3 hrs.	2 hrs.
		B-ANTH-603(i)	B-ANTH-603(ii)	2	10	40	50	4 hrs.	4 hrs.
Semester IV-VI	SEC- Anthropology	B-ANTH-S1	2	10	40	50	3 hrs.	2 hrs.	

***Students have to opt one option/stream of DSE Anthropology either (i) or (ii) Formula for 20 percent Internal Assessment (10 percent on the basis of two hand written assignments, 5 percent on the basis of one class test and 5 percent on the basis of attendance of the student).**

Nomenclature of Papers B.Sc. (Medical)

Subject: Anthropology

Semester	Course	Paper(s)	Nomenclature of Paper(s)
I	CC- Anthropology	B-ANTH-101	Introduction to Anthropology
		B-ANTH-102	Primatology
		B-ANTH-103	Anthropology Practical Based on B-ANTH-101 & B- ANTH-102
II	CC- Anthropology	B-ANTH-201	Fundamentals of Palaeoanthropology
		B-ANTH-202	Palaeoanthropology
		B-ANTH-203	Anthropology Practical Based on B-ANTH-201 &B-ANTH-202
III	CC- Anthropology	B-ANTH-301	Biological Diversity in Human Population
		B-ANTH-302	Human Growth and Development
		B-ANTH-303	Anthropology Practical Based on B-ANTH-301 &B-ANTH-302
IV	CC- Anthropology	B-ANTH-401	Social – Cultural Anthropology
		B-ANTH-402	Archaeological Anthropology
		B-ANTH-403	Anthropology Practical Based on B-ANTH-401 &B-ANTH-402
V	DSE* Anthropology (i)	B-ANTH-501(i)	Human Genetics
		B-ANTH-502(i)	Human Population Genetics
		B-ANTH-503(i)	Anthropology Practical Based on B-ANTH-501(i) &B-ANTH-502 (i)
	DSE* Anthropology (ii)	B-ANTH-501(ii)	Physiological Anthropology
		B-ANTH-502(ii)	Nutritional Anthropology
		B-ANTH-503(ii)	Anthropology Practical Based on B-ANTH-501(ii) &B-ANTH-502 (ii)
VI	DSE* Anthropology (i)	B-ANTH-601(i)	Human Ecology and Adaptation
		B-ANTH-602(i)	Applications of Anthropology
		B-ANTH-603(i)	Anthropology Practical Based on B-ANTH-601(i) &B-ANTH-602 (i)
	DSE* Anthropology (ii)	B-ANTH-601(ii)	Forensic Anthropology
		B-ANTH-602(ii)	Sports and Nutritional Anthropology
		B-ANTH-603(ii)	Anthropology Practical Based on B-ANTH-601(ii) &B-ANTH-602 (ii)
Semester IV-VI	SEC- Anthropology	B-ANTH-S1	Anthropology in Practice

*Students have to opt one option/stream of DSE Anthropology either (i) or (ii)

Scheme of B.Sc. with Anthropology as one the subject I & II Semester

Semester	Course	Paper(s)	Credits	Internal marks	External Marks	Total	Exam Duration
I	CC- Anthropology	B-ANTH-101	3	15	60	75	3 hrs.
		B-ANTH-102	3	15	60	75	3 hrs.
		B-ANTH-103	2	10	40	50	4 hrs.
II	CC- Anthropology	B-ANTH-201	3	15	60	75	3 hrs.
		B-ANTH-202	3	15	60	75	3 hrs.
		B-ANTH-203	2	10	40	50	4 hrs.

SEMESTER-I

B-ANTH-101: Introduction to Anthropology

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Objective: This course is designed to teach basics and fundamentals of Anthropology.

Course outcomes:

CO101.1. Student will be able to learn the basic of Anthropology in General.

CO101.2. Will be capable to learn about the aspects from which evolution and variation is studied.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-1

1. Meaning, scope and development of Anthropology.
2. Relationships with other disciplines: Social Sciences, Behavioral Science, Life Sciences, Medical Sciences, Earth Sciences and Humanities.
3. Main branches of Anthropology, their scope and relevance:
 - a) Social Cultural Anthropology
 - b) Biological Anthropology.
 - c) Archaeological Anthropology
 - d) Linguistic Anthropology
4. History of Physical Anthropology and Development of Modern Biological anthropology, aim, Scope and relationship with allied disciplines.

UNIT -2

1. Organic Evolution: Evidences of organic evolution, Evidence from Morphology, Evidences from Taxonomy, Evidence from Comparative Anatomy, Evidence from Comparative Physiology, Evidence from Zoogeography, Evidence from Embryology, Evidence from Palaeontology.
2. Theories of Organic Evolution : Lamarck's Theory, Criticism of Lamarckism, Darwin's Theory, Impact of Darwin's Revolution, Objection to Darwin's Theory, Synthetic Theory of Evolution.
3. Principles and Processes of Evolution: Parallelism and Convergence, Adaptive Radiation, Irreversibility of Evolution
4. Human Skeletal Morphology: Cranial Osteology, Post – Cranial Osteology and dentition.

SEMESTER-I

B-ANTH-102: Primatology

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Objective:To understand the Primates and Evolution of Man.

Course outcomes:

CO102.1. Student will be able to Learn about Primates and their evolution.

CO102.2. Will be capable to Learn about comparative Physical Characteristics of Man and Ape.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-1

1. Place of Man in Animal Kingdom

General characteristics of Chordata and Non- Chordata, Vertebrates, Mammalian Characteristics, The Primates, Characteristics of Primates, Classification of Primates

2. Evolution of Primate hand, Evolution of Primate feet and Locomotion, Evolution of Jaw and Dentition, Evolution of Brain.

3. Evolution and adaptive Radiation Pro Simians, New World Monkey, Old World Monkey Apes ad Man.

4. Molecular Evolution in Primates.

UNIT -2

1. Apes and Man

Locomotion, Primate Locomotor Patterns, Vertical Clining and Leaping, Quardupedalism, Brachiation, Bipedalism, Manipulation, Mental Process: Brain Size and Complexity

2. Evolution of Orthograde Spine, Postural adaptation of the shoulder and Thorax, Adaptation of the abdomen and it's viscera to the Orthograde posture, Postural modification of the Pelvis.

3. Comparative Osteology of Ape and Man

Cranium and Face, Cranial Skeleton, Facial Skeleton, Vetebral Column, Limbs.

SEMESTER-I

B-ANTH-103: Anthropology Practical Based on B-ANTH-101 & B-ANTH-102

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 4 Hours

Objective: To have practical knowledge about understanding the Human Osteology

Course outcomes:

CO103.1. Student will be able to identify the human osteology.

CO103.2. Will be capable to differentiate different parts and sites of the bones.

Contents

1. Introduction to Human Osteology.
2. Detailed morphology of human skull (Normal Verticalis, Norma Lateralis, Norma Frontalis, Norma Occipitalis, Norma basalis) and long bones.
3. Pelvic and Pectoral Girdle.
4. Detailed Morphology of Radius, Ulna, Humerus, Femur, Tibia and Fibula, sides to be identified for paired bones.

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-I)

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

	Exercise	Marks allotted
1.	One Labeled diagram Bone (Labeled diagram)	06
2.	Comparison bones differences (Staining, identification, sketch)	06
3.	Specimens – Bones (Identification and description)	18 (6x3)
4.	Practical record and field report	05
5.	Viva-voce	05

SEMESTER-I
Core Course-Anthropology

B-ANTH-101				Introduction to Anthropology									
B-ANTH-102				Primatology									
B-ANTH-103				Anthropology Practical Based on B-ANTH-101 & B-ANTH-102									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO101.1.	1	2	2	3	2	2	2	2	1	3	2	3	2
CO101.2.	2	2	1	1	1	2	2	2	2	1	2	2	2
CO102.1.	2	1	2	2	2	1	3	3	1	2	2	2	3
CO102.2.	2	2	1	2	1	2	2	3	1	2	2	3	2
CO103.1.	1	2	2	2	1	1	3	1	2	1	3	3	3
CO103.2.	2	1	2	1	2	1	2	1	1	1	3	3	3
Average	1.66	1.66	1.66	1.83	1.33	1.5	2.33	2.0	1.33	1.66	2.33	2.66	2.5

SEMESTER II

B-ANTH-201: Fundamentals of Palaeoanthropology

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Objectives: To understand the chronological dating methods and their limitations, Fossils and the process of Fossilisation

Course Outcomes:

CO201.1 Students will be able to describe scope of different chronological methods

CO201.2 Students will be able to describe various aspects of palaeodemography and palaeopathology

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT -1

1. Palaeoanthropology, Definition, Scope, aim objectives
2. Relationship of Palaeoanthropology with other disciplines.
3. Geological Time Scale, Taphonomy and interpretation of paleontological and archaeological records, taxonomic and chronological problems of fossil records.
4. Primates and Non-primate models for early Hominid Behaviour, hominization process – Evolution of hominid-human bipedalism.

UNIT -2

1. Fossils and Fossilisation process

How Fossils are formed, the process of Fossilization, Conditions for Fossilization

2. Palaeodemography – reconstruction of population patterns from skeletal analysis, determination of demographic variable in prehistoric populations and post-neolithic population growth, theory and techniques in paleodemography, methodological issues for reconstructing demographic structure, demographic models of mortality and their interpretation.

3. Palaeopathology – Bioarchaeological approach of disease, effects of agriculture, urbanization and slavery on health and disease, colonization and disease with special emphasis on the new world, dispersion of modern humans-molecular and morphological patterns of relationship.

SEMESTER II

B-ANTH-202: Palaeoanthropology

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Objective: Provide an understanding of the evolutionary stages of man

Course outcome:

202.1. Students will learn about the stages of human evolutionary development.

202.2. Student will know about the fossil finds on the basis of which evolutionary stages are identified.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each section A & B, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-1

1. Phylogentic status, Characteristics and geographical distribution of the following.

a) Plio - Pleistocene hominids in south and East Africa_ Australopithecines.

b) Homo erectus: Africa (Paranthropus), Europe (*Homo erectus heidelbergensis*), Asia (*Homo erectus javanicus*, *Homo erectus pekinensis*).

c) Neanderthal Man:La- Chapelle- Aux Saints (Classical type), Mt. Carmel(Progressive type).

d) Rhodesian man.

UNIT-2

1. *Homo sapiens*: During Upper Pleistocene CroMagnon, Grimaldi and Chancelade.

2. Homonization: A process of Evolutionary Transformation, The Influence of arboreal life, The return to the terrestrial life, The Earliest Evidence, From Herbivore to Omnivore, Brain and Nervous System

Suggested Readings:-

1. Brace C.L and Montagu, A: Man Evolution- An introduction to Physical Anthropology: Macmillan: New York

2. Burtner Janusch, John (1969): Origins of Man. Wiley Eastern Private Limited: New Delhi.

3. Boyd R and Silk JB(2009), How Humans Evolved. London: WW Norton. Tattersall I.(2009). The fossil Trail: How we know what we think we know about Human Evolution. New York: Oxford University Press.

4. Lansen CS. Matter RM and Gebo DL. (1998). Human Origin: The Fossil Record.

5. Conroy GC.(2005). Reconstructing Human Origins. WW Norton and Company.

SEMESTER II

B-ANTH-203: Anthropology Practical Based on B-ANTH-201 & B-ANTH-202

Credits:2

External Marks:40

Internal Marks:10

Time allotted: 4 Hours

Objectives:

- Students will have comparative knowledge of anatomy of man and higher primates.

Course Outcome:

203.1 Student will be able to differentiate between bones of man and primates.

203.2 Student will be able to take the measurements of the bones.

Contents:

1. Application of Osteology in Anthropological studies and forensic science.
2. Comparative Anatomy of man and other primates.
3. Introduction to Craniometry & Osteometry.
4. Different Measurements of skull:
 - Maximum cranium length
 - Maximum cranium breadth
 - Maximum Biozygomatic breadth
 - Nasal breadth
 - Nasal height
 - Upper facial height

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-II)

Credits: 2

External Marks: 40

Internal Marks: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

	Exercise	Marks allotted
1.	Comparison of Skull of Man and Ape (Labeled diagram)	06
2.	Two Measurements on Skull	10
3.	Application of Osteology (Identification and description)	06
4.	Defining Land Marks on the Skull	08
5.	Practical record/field report	05
6.	Viva-voce	05

SEMESTER-II
Core Course-Anthropology

B-ANTH-201				Fundamentals of Palaeoanthropology									
B-ANTH-202				Palaeoanthropology									
B-ANTH-203				Anthropology Practical Based on B-ANTH-101 & B-ANTH-102									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO201.1.	1	2	3	2	2	2	2	3	2	1	2	3	2
CO201.2.	2	2	2	2	2	3	2	3	2	1	2	2	3
CO202.1.	2	2	1	2	3	2	2	3	3	2	2	3	2
CO202.2.	3	1	2	1	2	2	2	3	2	3	2	3	3
CO203.1.	2	2	2	1	1	2	3	3	2	1	3	3	3
CO203.2.	2	2	2	2	1	2	3	2	2	1	3	3	3
Average	2	1.83	2	1.66	1.83	2.16	2.33	2.83	2.16	1.5	2.33	2.83	2.66

SEMESTER III

B-ANTH-301: Biological Diversity in Human Population

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Course Objective: To provide the understanding how to assess human biological diversity

Course outcome:

301.1 The students will learn about markers for understanding biological diversity.

301.2 Students will learn about classification of Indian population.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each section A & B, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-I

1. Concept of Race in historical and biological perspective: Genetic basis, UNESCO statement on Race-Ethnic group-population, Racial classification of human population.
2. Criteria of Human Typology, Morphological traits and Genetical traits.
3. Origin of races and their fossil connection. Three Primary Races of the World – concepts; classification of race, causes of human variation - Morphological, Serological and Genetic.

UNIT-II

1. Ethnic & linguistic elements in Indian Populations their distribution – factors influencing its structure & growth
2. Racial classification: Deniker's, Hooton's, Coon, Garnaand Birdsell's, Racial classification of Indian populations – Risley Guha's and Sarkar's.
3. Negrito elements in Indian population.

SEMESTER III

B-ANTH-302: Human Growth and Development

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Objective:

- To make students will be able to learn about various stages and environmental factors involved in human growth and development which help them in understanding growth monitoring of a child.

Course Outcome:

302.1 Students will be able to differentiate the term growth, maturation and development.

302.2 Students will be able to understand the basic principles of human growth and development.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each section A & B, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT - I

1. Concept of human growth: differentiate between growth and development. Identify growth, spurt, normal and abnormal growth pattern.
2. Development stages of growth – Pre-natal, natal, infant, childhood, adolescence, maturity, senescence, differences in physique, factors, controlling growth and development on population human growth curves, basic methods of study: cross – sectional, longitudinal, mix-longitudinal.

UNIT-II

1. Factors affecting growth and development: Genetic, environmental, biochemical, nutritional - energy value of food, under-nutrition and malnutrition, Nutritional adaptation in Man; cultural and socio economic.
2. Human physique and somatotypes.
3. Method of studying Growth and development. Milestones in growth, retarded growth, growth spurt, ageing.

Suggested Readings:-

1. Montagu MFA: Concepts of Race
2. Guha BS (1964) Racial Elements in Indian Population.
3. Brace C.L and Montagu, A: Man Evolution- An introduction to Physical Anthropology: Macmillan: New York
4. Tanner, J.M. (1978): Foetus into Man: Physical Growth from Conception to Maturity.
5. Sinclair, D. (1989): Human Growth after Birth. 5th ed. Oxford University Press

SEMESTER III

B-ANTH-303: Anthropology Practical Based on B-ANTH-301 & B-ANTH-302

Credits:2

External Marks:40

Internal Marks:10

Time:4 hours

Objective

- To enable the student to take the measurements and observation on Human Body.

Course Outcome:

303.1 Student will be able to take measurements on Human Body.

303.2 Students will be able to make somatoscopic observations.

Contents:

1. Anthropometry; somatometry and somatoscopy, anthropometric instruments
2. Somatoscopic observations (Eye, Nose, Hair, lips).
3. Somatometric landmarks (vertex, glabella, opisthocranium, euryon, nasion, subnasale, pronasale)
4. Basic body measurements, weight status, sitting height, head circumference, head length, head breadth, nose length, nose breadth, upper arm circumference, calf circumference

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-III)

Credits: 2

External Marks: 40

Internal Marks: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

Exercise	Marks allotted
1. Two Somatoscopic observations of a Subject	06
2. Two Anthropometric Measurements on a Subject	09
3. Marking of Landmarks and defining of Landmarks	08
4. Explanation of Anthropometric instrument	07
5. Practical record/field report	05
6. Viva-voce	05

SEMESTER-III
Core Course-Anthropology

B-ANTH-301				Biological Diversity In Human population									
B-ANTH-302				Human Growth and development									
B-ANTH-303				Anthropology Practical Based on B-ANTH-301 & B-ANTH-302									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO301.1.	2	2	2	2	2	2	3	2	3	2	3	2	2
CO301.2.	1	2	2	2	2	2	2	3	3	2	3	2	2
CO302.1.	1	2	2	3	2	2	2	2	2	3	3	3	2
CO302.2.	1	2	2	2	3	2	2	2	2	2	3	3	3
CO303.1.	1	2	2	3	3	2	3	1	3	1	3	3	3
CO303.2.	2	2	2	3	3	2	3	2	3	1	3	3	3
Average	1.33	2	2	2.66	2.5	2	2.5	2	2.66	1.83	3	2.66	2.5

SEMESTER IV

B-ANTH-401: Social- Cultural Anthropology

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Course Objectives: The objective of this course is to familiarize the students with the discipline of social anthropology.

Course Outcomes:

- 401.1 The students will be able to understand and apply the basic concepts like groups, institutions, organization and community in understanding of society and culture.
- 402.2 They should be able to appreciate the significance of social anthropology and its contemporary role in the society

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each section A & B, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT - I

1. Introduction to social anthropology: Concept of Society, Status and role, Pre-requisite of Human Society.
2. Basic Concepts: Group, community, tribe, caste and class, caste system in India.
3. Family: Definition and function of family, types of family, Nuclear, extended, joint. (Structure, Residence). Pattern of authority: Patriarchy, Matriarchy, Nature of kinship, kinship terminology, kin groups- Lineage, Clan, Phratry and Moiety.
4. Marriage- forms and types of marriage Rules: Endogamy, Exogamy, Monogamy, Polygamy, Polygyny, Polyandry, Mate Selection, Levirate, Sororate, Sororal, cross-cousin marriage, dowry.

UNIT-II

1. Economic Organization: Modes of production, distribution and consumption, concept of value, Political Organization in primitive societies, ownership, production and exchange in primitive societies with reference to Indian tribes.
2. Social Structure: Caste System – definition and Criteria of caste system, varna and caste, dominant caste, caste-mobility – fusion, lack of fusion and fission. Backward and Scheduled Castes: Statutory provisions, caste and tribe, caste in democracy.

SEMESTER IV

B-ANTH-402: Archaeological Anthropology

Credits: 3

External Marks: 60

Internal Assessment: 15

Time allotted: 3 Hours

Course objective :

- To make students learn the concepts of archaeological anthropology, tool typology, identification and their cultural interpretations

Course outcome:

402.1 The Course will explain the basic concepts and terminology used in prehistoric archaeology

402.2 Students will be able to understand the chronological and cultural determinants of Indian prehistory

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of short answer type 6 parts (2.0 marks each) covering the entire syllabus. Out of remaining eight, four questions are to be set from each section A & B, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT - I

1. Introduction of prehistoric Archaeology: Chronology: Relative and Absolute Dating methods – dendrochronology, radio carbon dating, potassium – organ dating, thermo-luminescence dating and archaeo-magnetic dating. Archaeological sites in India.

2. Principles of prehistoric Archaeology.

UNIT -II

1. Geochronology of Pleistocene Epoch: Pleistocene glaciations; Evidences and causes, glacial and interglacial phase.

2. Cultural Evolution; Broad outlines of prehistoric culture, Paleolithic, Mesolithic Neolithic, Chalcolithic, Copper- Bronze age, Iron- Age.

Suggested Readings:-

1. Beals. R. and Hojjer. H. (1979) : An Introduction to Anthropology . New York: Macmillan Publishing Co. Inc.

2. Herkovits, M.J.(955) : Cultural Anthropology , Bombay Oxford and IBH Publishing Co. Pvt. Ltd.

3. Hoebel , E.A. and Frost E.L.(1979) Cultural and Social Anthropology, New Delhi Tata

4. Bhattacharya D.K. (1978) Emergence of Culture in Europe, Delhi B.R. Publication.

5. Sankalia H.D. (1964) Stone Age tools, Poona Deccan College.

SEMESTER IV

B-ANTH-403: Anthropology Practical Based on B-ANTH-401 & B-ANTH-402

Credits:2

External Marks:40

Internal Marks:10

Time:4 hours

Course Objective

- To have the practical knowledge of various methods used in Social Anthropology and Archeology

Content

403.1 Student will be able to understand the various methods used in Social Anthropology.

403.2 Student will be able to understand different type of tools used in pre-historic times.

Contents:

1. Typo-technological Analysis of pre historic tools :- Interpretation & Drawing of the tool types

a. Core tool type

b. Flake tool types

c. Blade tool types

2. Methods & techniques of social anthropology

a. Observation

b. Interviews

c. Questionnaire & Schedules.

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-IV)

Credits: 2

External Marks: 40

Internal Marks: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

Exercise	Marks allotted
1. Identify the tools and write about it	08
2. Drawing of tools (02)	12
3. Write about the methods in social Anthropolgy	10
4 Practical record/field report	05
6. Viva-voce	05

SEMESTER-IV
Core Course-Anthropology

B-ANTH-401				Social-Cultural Anthropology									
B-ANTH-402				Archaeological Anthropology									
B-ANTH-403				Anthropology Practical Based on B-ANTH-401 & B-ANTH-402									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO401.1.	1	2	1	1	2	1	1	1	2	3	3	2	3
CO401.2.	1	2	2	1	2	2	1	1	1	3	3	3	3
CO402.1.	1	1	1	2	2	1	1	2	2	3	3	2	2
CO402.2.	1	1	2	2	2	1	1	2	2	2	3	2	3
CO403.1.	1	1	2	2	2	1	1	1	1	1	3	3	3
CO403.2.	1	1	1	2	2	1	1	1	1	1	3	3	3
Average	1	1.33	1.5	1.66	2	1.66	1	1.16	1.5	2.16	3	2.5	2.83

SEMESTER-V

B-ANTH-501(i): Human Genetics

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 3 Hours

Course Objectives

- To provide an understanding of basic Human Molecular Genetics

Course Outcomes

Students will be:

501(i).1 Able to describe structure and function of human genome

501(i).2. Able to understand the use of inheritance pattern underlying genetic diseases

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT- I

1. Human Genetics: Definition and Scope of human genetics and Anthropology, History and Development, Scope & aim; Branches, Cell Structure & division.
2. Methods for study of genetic principles in man- family study (Pedigree analysis, twin method, sib pair method, cytogenetics, chromosomal and karyotype, foster child method Biochemical, cytogenetic, immunological recombinant DNA method.

UNIT-II

1. Cell Biology, DNA structure & replication, DNA repair & recombination, Gene expression.
2. Chromosome Structure, identification of human chromosome.
Abnormalities of human chromosomes: Numerical Chromosomal: Abnormalities - Klinefelter, Turner, Super female, intersex and other syndromic disorders, Structural Abnormalities of the Chromosomes: Down, Patau, Edward and Cri-du-chat, Somatic allergens, genetic counseling.

SEMESTER-V

B-ANTH-502(i): Human Population Genetics

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 3 Hours

Course Objective: To provide the understanding of Measuring changes in human population.

Course outcome:

502 (i).1. Student will learn about mechanisms which create variation in gene frequencies

502 (i).2. Students will learn method assessing gene frequency variation.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-I

1. Definition and concept of population genetics, History of population genetics, Genotype & allele frequencies, Mating system.
2. Mendelian inheritance in man. Mode of inheritance – Autosomal, sex linked, sex influenced, sex limited, lethal, sub-lethal and Polygenic inheritance in man.
3. Non Mendelian inheritance in man, Types: Extranuclear, gene conversion, infectious heredity, genomic imprinting, Mosaicism, Trinucleotide repeat disorders.

UNIT – II

1. Population Genetics and the Hardy Weinberg Law human variation. Causes and changes in the gene frequency – mutation, isolation, migration, selection, inbreeding and genetic drift. Consanguineous and non- consanguineous mating genetic load, genetic effect of consanguineous and cousin marriages, genetic adaptation.
2. Other complicating factors in human genetics, like age of onset, variable expressivity, penetrance, uniparental disomy, genomic imprinting.

Suggested Readings:-

1. Griffiths AJF, Wessler SR, Carroll SB, Doebley J (2011). An Introduction to Genetic Analysis. Macmillan Higher Education.
2. Cummings MR (2011). Human Heredity: Principles and Issues. Brooks/Cole, Cengage Learning
3. Jobling M, Hurler M and Tyler-Smith C. (2004) Human Evolutionary Genetics: Origins, People and Disease, New York: Garland Science.
4. B.R.K Shukla and Sudha Rastogi: Physical Anthropology and Human Genetics.

SEMESTER-V

B-ANTH-503(i):Anthropology Practical Based on B-ANTH-501(i) & B-ANTH-502(i)

Credits:2

External Marks:40

Internal Marks:10

Time:4 hours

Course Objective

- To Develop the Laboratory Skill.

Course Content

503(i).1. Student will be able to take the Finger prints.

503(i).2. Student will know the methods of ABO Blood Group System and Colour Blindness Test.

Contents:

1. Classification & identification of finger print patterns (15 subjects)
2. Classification & identification of Palm Print (15 subjects)
3. ABO blood group system, Rh Blood Group System (15 Subjects)
4. Coloured blindness test: Ishihara's Chart should be used to determine the Colour Blindness, inferences should be recorded on at least 10 Subjects.

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-V)

Credits: 2

External Marks: 40

Internal Marks: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

Exercise	Marks allotted
1. Palm Print and Draw Main Line Formula	10
2. Take up the Finger Print and Identify the Patterns	10
3. Write the method and Blood Group of given subject	10
OR	
Colour Blindness Test	
4. Practical record/field report	05
5. Viva-voce	05

SEMESTER-V													
Discipline Specific Elective (DSE) –Anthropology(i)													
B-ANTH-501(i)				Human Genetics									
B-ANTH-502(i)				Human Population Genetics									
B-ANTH-503(i)				Anthropology Practical Based on B-ANTH-501(i)& B-ANTH-502(i)									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO501(i).1.	1	2	2	2	2	1	1	1	2	1	3	2	2
CO501(i).2.	1	2	2	2	2	1	2	1	2	1	3	2	2
CO502(i).1.	1	2	1	1	2	1	2	1	2	2	3	2	2
CO502(i).2.	2	2	2	1	2	1	2	1	2	2	3	2	2
CO503(i).1.	1	2	3	2	3	2	3	2	2	1	3	3	2
CO503(i).2.	1	2	2	2	3	2	3	2	2	1	3	3	2
Average	1.16	2	2	1.66	2.33	1.33	2.16	1.33	2	1.33	3	2.33	2

SEMESTER-V

B-ANTH-501(ii): Physiological Anthropology

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 3 Hours

Course Objective

- Provide & understanding the physiological aspects of human body.

Course Outcome:

501(ii).1 Students will learn about the fundamentals of physiology & physiology adjustment.

501(ii)2. Student will learn about intrinsic & extrinsic factors that influence human physiology.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-I

Fundamentals of work physiology- homeostasis; metabolism and energy and systems; exercise, respiratory system and haemodynamics (blood pressure, pulse rate, heart rate and oxygen-transporting system, blood flow, Hb, haematocrit etc.). Acute physiological adjustments during transition from resting homeostasis to sub-maximal and maximal exercise; chronic physiological adaptations to exercise training; age, sex and population variation in the physiological characteristics

UNIT-II

Principles of effective physical conditioning techniques. Impact of smoking, alcohol, drug, pollution and occupation on cardio-respiratory functions; physical performance and environmental stress, chronic diseases, malnutrition, lifestyle disease, Factors affecting physical performance and capacity, relation between physique, body composition, nutrition and performance. Ageing and health related aspects of exercise

Suggested Readings:

1. Powers SK and Howley ET. (2007). Exercise Physiology: Theory and Application to Fitness and Performance. McGraw-Hill.
2. Sherwood L. (2008). Human Physiology: From Cells to Systems. Brooks Cole.
3. Case RM. (1985). Variations in Human Physiology. Manchester University Press.
4. Vander AJ, Sherman JH and Dorothys L. (1978). Human Physiology: The Mechanisms of Body Functions. Mc Grew-Hill Education.

5. Nageswari KS and Sharma S. (2006). Practical workbook of Human Physiology. Jaypee Brothers, Medical Publisher.
6. Wildmaier EP, Raff H, Strang KT. (2014). Vander's Human Physiology: The Mechanisms of Body. Mc Graw Hill Education.
7. Hale T. (2003). Exercise Physiology. England: John Wiley & Sons Inc.

SEMESTER-V

B-ANTH-502(ii):Nutritional Anthropology

Credits:2

External Marks: 40

Internal Assessment: 10

Time allotted: 3 Hours

COURSE OBJECTIVE:

- To review, evaluate, and understand the literature on human diet and nutrition from an explicitly anthropological perspective.

COURSE OUTCOME:

502 (ii).1. To understand the macro and micro components of nutrition and their interaction, immunity and infection.

502(ii).2 To have deeper insights of biocultural perspective of nutrition and variations in the contemporary food habits.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-I

Introduction to Nutritional Anthropology:

Basic principles aim and objectives of nutritional anthropology.

Macro and micro nutrients and their interaction immunity and infections.

Trace elements and their importance in human nutrition.

Evolution of diet with the earliest human ancestors and latest human.

Biocultural diversity of food and Nutrition.

UNIT-II

Variation in contemporary food habits.

Pre-industrialisation, Industrialisation and Globalisation.

Changes in the dietary pattern and lifestyle.

- Under nutrition, malnutrition and obesity
- Nutritional disorders
- Emerging trends: nutrigenomics, nutraceuticals and bio active compounds.
Nutritional Requirements and assessment techniques.
- Recommended dietary allowances.

Qualitative and Quantitative assessment techniques of human nutrition

SEMESTER-V

B-ANTH-503(ii):AnthropologyPracticalBased on B-ANTH-501(ii) & B-ANTH-502(ii)

Credits:2

External Marks:40

Internal Marks:10

Time:4 hours

COURSE OBJECTIVE

- To Develop the Laboratory Skill.

COURSE CONTENT

503(ii).1.Student will be able to take the Anthropometric Measurements.

503(ii).2.Student will know the methods of taking Blood Pressure, Heat Rate etc. and other tests.

CONTENTS

1. Cardiovascularfunction(Bloodpressure,heartrate,pulserate)

2. Haemoglobin estimation 4. Step-test

3. Anthropometric assessment of nutritional status:

Somatometry: Height, weight, BMI, Body fat percentage, Circumferences, Hand Grip Strength.

Development of FFQ

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-IV)

Credits: 2

External Marks: 40

Internal Marks: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

Exercise	Marks allotted
1 Calculation of BIM of 01 Subject	06
2 Check the Blood Pressure and Pulse Rate	10
3 Taking 02 Body Circumfrences and writingtheirmethods	08
4 Hemoglobin Test	06
5 Practical record	05
6 Viva-voce	05

SEMESTER-V													
Discipline Specific Elective (DSE) –Anthropology(ii)													
B- ANTH-501(ii)				Physiological Anthropology									
B-ANTH-502 (ii)				Nutritional Anthropology									
B-ANTH-503 (ii)				Anthropology Practical Based on B-ANTH-501(ii)& B-ANTH-502(ii)									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO501.(ii)1.	1	2	2	2	2	2	2	1	2	2	3	3	2
CO501(ii).2.	1	2	1	2	2	2	2	1	2	2	2	2	3
CO502(ii).1.	1	2	1	2	3	2	2	1	2	2	3	3	2
CO502(ii).2.	1	2	2	3	2	2	3	1	2	2	3	3	2
CO503(ii).1.	1	2	3	2	3	1	3	1	1	1	3	3	3
CO503(ii).2.	1	2	3	2	3	1	3	1	1	1	3	3	3
Average	1	2	2	2.16	2.5	1.66	2.5	1	1.66	1.66	2.83	2.83	2.5

SEMESTER VI

B-ANTH-601(i):Human Ecology and Adaptation

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 3 Hours

Course Objective

- To impart the knowledge about human adaptation in the ecological setting.

Course Learning Outcomes

601(i).1 The students will be able to address the issues of natural resources like air, water, forest and their conservation for a sustainable growth and development.

601(i).2.The knowledge on human adaptation in ecology will be gained.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT-I

1.Definition & concept of term ecology,Human ecology, Adaptation, acclimation,acclimatization,biotic &abiotic components, interaction of Man with Environment

2. Concepts and methods of ecological anthropology.

3. Bio-cultural adaptation – genetic and non-genetic factors.

UNIT-II

1. Man's physiological response to environmental stress. Hot, desert, Cold, High altitudeclimate.(Glogers,Allen's & Bergmann rules)

2. Epidemiological anthropology: Health and disease infectious and non-infectious disease,nutritional deficiency related disease.

3. Influence of heredity on man which special reference to stature weight,skincolor and head form.

SEMESTER VI

B-ANTH -602(i): Applications of Anthropology

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 3 Hours

Course Objective: To impart knowledge about applications of Anthropology teaching

Course outcomes:

602(i).1. Students will be able to explain and provide counseling regarding human genetics and related diseases

602(i).2. Students will be able to explain anthropometry. Nutrition and methods of studying growth

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks.

UNIT – I

1. Human Genetics Application and the biological future of mankind

- a) Eugenics
- b) Genetic Counseling
- c) Genetic Screening
- d) Prenatal Diagnosis
- e) Gene Therapy
- f) Genetic Engineering
- g) Human Genetics, Law and Bio-ethics
- h) DNA Fingerprinting

UNIT – II

I Applications of Physical Anthropology

- a) Anthropometry and its applications
- b) Forensic Anthropology
- c) Physical Anthropology and Sports
- d) Growth , Development and Nutritional Anthropology

II Methods of studying growth

- a) Longitudinal method
- b) Cross – Sectional method
- c) Mixed Longitudinal method
- d) Growth curves
- e) Epiphyseal union
- f) Dentition

Suggested Readings:-

1. Lewis R. (2009) Human Genetics: Concepts and Applications, TheMsGraw –Hill Companies.Inc.
2. Gaur, R. (1987): Environmental and Ecology of Early man in Northwest India.
3. Sukhatme P.V. : Human Adaptation to Environment (1985)

SEMESTER VI

B-ANTH-603(i):Anthropology Practical Based on B-ANTH-601(i) & B-ANTH-602(i)

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 4 Hours

Course Objective

- To have the Practical Knowledge of Measurements.

Course outcomes:

603(i).1.Students will able to calculate the body indexes.

603(i).2 Students willable to understand the effect of environment on health.

Contents :

1. Make a schedule on health&demography.
2. Biological dimension index
 - a. Body mass index
 - b. Ponderalindex
 - c. Relative sittingheight index
 - d.Relative upperextremitylength index.
 - e. Relative total lowerextremitylength index
 - f.Nasal index.

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-IV)

Credits: 2

External Marks: 40

Internal Marks: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

Exercise	Marks allotted
1 Calculation of BodyMass index or Ponderalindex	10
2 Relative sitting high index	05
3 Nasal index	07
4 Method of schedule on health&demography	08
5 Practical record	05
6 Viva-voce	05

SEMESTER-VI													
Discipline Specific Elective (DSE) --Anthropology(i)													
B-ANTH-601(i)				Human Ecology & Adaptation									
B-ANTH -602(i)				Application Of Anthropology									
B-ANTH -603(i)				Anthropology Practical Based on B-ANTH-601(i)& B-ANTH-602(i)									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO601(i).1.	2	2	1	2	2	2	2	2	2	2	3	2	3
CO601(i).2.	2	2	1	2	2	2	2	2	2	2	3	3	3
CO602(i).1.	1	2	2	1	3	1	2	1	2	1	3	2	3
CO602(i).2.	1	2	2	1	3	1	2	1	2	1	3	2	3
CO603(i).1.	1	2	1	1	2	2	2	1	1	2	3	3	2
CO603(i).2.	1	2	1	1	2	2	2	1	1	2	3	3	2
Average	1.33	2	1.33	1.33	2.33	1.66	2	1.33	1.66	1.66	3	2.5	2.66

SEMESTER-VI

B-ANTH-601(ii):Forensic Anthropology

Credits: 2

External Marks:40

Internal Assessment: 10

Time :3 hours

Course Objective: To learn the scope & basic concepts of forensic anthropology.

Course outcome:

601(ii).1.Student will be able to understand the relevance of various methods used in forensic anthropology.

601(ii).2.Student will be familiar with the applications of forensic anthropology.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks

UNIT - I

Introduction to Forensic Anthropology: Definition, Brief History, Scope, Applications and Integration of Forensic Anthropology.

Basic Human Skeletal Biology, Identification of Human and Non-Human Skeletal Remains, Ancestry, age, sex and stature estimation from bones, Discovery and Techniques for recovering skeletonized Human Remains.

UNIT-II

Personal Identification, Complete and Partial Identification, Methods of Identification in Living Persons: Somatometry, Somatoscopy, Occupational Marks, Scars, Bite Marks, Tattoo Marks, Fingerprints, Footprints, Lip Prints, Nails, Handwriting, Deformities and Others.

Serology: Identification and Individualization of bloodstain, urine, semen and saliva. Patterns of Bloodstains.

Individualization: Forensic Odontology-Tooth Structure and Growth, Bite Marks, Facial Reconstruction, DNA Profiling.

SEMESTER-VI

B-ANTH-602(ii): Sports and Nutritional Anthropology

Credits: 2

External Marks:40

Internal Assessment: 10

Time : 3 hours

Course objective:

Students will be able to understand the relevance of anthropology in the fast emerging fields like sports & nutrition.

Course outcome:

602 (ii).1. To understand the factor affecting physical & physiological functioning of Man

602 (ii).2. To understand Human body composition.

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks

UNIT-I

1. Anthropology of sports- Physical fitness, component of physical fitness
2. Physical conditioning, training-techniques and physiological effects, environmental effects on physical performance: effect of heat stress, cold stress and high altitude on physiological response and performance.

UNIT-II

1. Body composition and Athletes, sports selection and monitoring
2. Human biological variability, health and nutrition; doping and performance; cultural constructions and physiologic implications of food across time, space and society; an integrated bio-behavioural perspective towards food preference.

SEMESTER-VI

B-ANTH-603(ii):AnthropologyPractical Based on B-ANTH-601(ii) & B-ANTH-602(ii)

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 4 Hours

Course Objective

- To have the Practical Knowledge of human Nutrition

Course Content

603(ii).1.Students will be able to calculate the nutritional requirement.

603(ii).2. Students will be able to understand the effect of nutrition and environment on total population.

Contents :

1. Assessment of daily nutrientintake
2. Evaluate association of nutritional status and physical performance
3. Demonstrate cultural perspective for preference of specific food of a population

GUIDELINES/INSTRUCTIONS FOR PRACTICAL EXAMINATION (SEMESTER-VI)

Credits: 2

External Marks: 40

Internal Marks: 10

Time allotted: 4 Hours (One session)

Note : Following exercises will be set in the examination as per marks assigned for each.

Exercise	Marks allotted
1Calculation of daily nutrientintake	10
2 Exercise to show relation between nutritional Status&Physial Performance	07
3 Demonnstration of Preference food Study	05
4 Method of schedule on health&demography	08
5 Practical record	05
6 Viva-voce	05

SEMESTER-VI													
Core Course-Anthropology													
B-ANTH-601(ii)				Forensic Anthropology									
B-ANTH-602 (ii)				Sports & Nutritional Anthropology									
B-ANTH-603 (ii)				Anthropology Practical Based on B-ANTH-601(ii) & B-ANTH-602(ii)									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO601(ii).1.	1	2	2	2	2	1	2	1	2	1	3	3	2
CO601(ii).2.	1	2	2	2	2	1	2	1	2	1	3	3	2
CO602(ii).1.	2	2	2	2	2	2	1	1	2	1	2	3	2
CO602(ii).2.	2	2	2	1	2	1	1	1	2	1	2	3	2
CO603(ii).1.	1	2	2	2	3	1	2	1	2	1	3	3	2
CO603(ii).2.	1	1	2	2	2	1	2	1	2	1	3	3	2
Average	1.33	1.83	2	1.83	2.16	1.16	1.66	1	2	1	2.66	3	2

B.Sc. Anthropology (Semester IV-VI)

Semester IV-VI	SEC- Anthropology	B-ANTH-S1	2	10	40	50	3 hrs.
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SYLLABUS

B-ANTH-S1: Anthropology in Practice

Credits: 2

External Marks: 40

Internal Assessment: 10

Time allotted: 3 Hours

Course Objective: To impart knowledge about anthropology in India

Course Outcome:

B-ANTH-S1.1. Students will gain knowledge about history & Development of anthropology in India

B-ANTH.S1.2 Students will gain knowledge about diversity in India with problems of Tribes

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question. Question 1 is compulsory consisting of 8 parts (1.0 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words. Out of remaining eight, four questions are to be set from each unit I & II, possibly splitting them in parts. Candidate is required to attempt four questions, two from each unit. All five questions carry equal marks

UNIT-I

Academics and Practitioners: Differences, Structure, Activities, Controversies and Issues:

Applied Anthropology, Action Anthropology and Development Anthropology. Role of Anthropology in Development

Anthropology and Public Policy, Need Assessment and Community Development, Anthropology of NGO's, Management Anthropology, Environment and Community Health, Social and economic sustainability, Cultural resource management

UNIT-II

Future Directions in Anthropology

Trends in Anthropology: Anthropology of Tourism, Anthropology in Census; Designing And Fashion, Visual Anthropology, Medical Anthropology. Importance of Museums.

Constitutional Perspective and Human Rights

Suggested Readings:-

1. Arya A and Kapoor AK. (2012). Gender and Health Management in Afro-Indians. Global Vision Publishing House, New Delhi.
2. Ervic, Alexander M., (2000). Applied Anthropology: Tools and Perspectives for Contemporary Practice, Boston, MA: Allyn and Bacon.
3. Margaret AG. (2003). Applied Anthropology: A Career-Oriented Approach, Boston, MA: Allyn and Bacon

SEMESTER-IV-VI													
SEC--Anthropology													
B- ANTH-S1				Anthropology In Practice									
CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO.B- ANTH- S1.1	1	1	2	2	2	1	1	1	2	3	3	3	2
CO.B- ANTH-S1.2	1	1	2	2	2	1	1	1	2	2	3	3	2
Average	1	1	2	2	2	1	1	1	2	2.5	3	3	2