

SUBJECT: ANTHROPOLOGY TEST SERIES 2022

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Time Allowed: 3 HOURS

Maximum Marks: 250

INDEX TABLE		
Q.No.	Max.Marks	Marks Obtained
1	a	5
	b	5
	c	5.5
	d	5.5
	e	8
2	a	12
	b	2
	c	-
5	a	5
	b	6
	c	5.5
	d	5.5
	e	-
7	a	11
	b	9
	c	9
8	a	12
	b	4
	c	9
15		
Total Marks:		

INSTRUCTION	
<p>1. Do furnish the appropriate details in the answer sheet (viz. Name, Email, Roll No., Mobile).</p> <p>2. All questions are compulsory.</p> <p>3. The number of marks carried by a question/part is indicated against it.</p> <p>4. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided.</p> <p>5. Word limit in questions, if specified, should be adhered to.</p> <p>6. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off.</p> <p style="text-align: center;">“Develop success from failures. Discouragement and failure are two of the surest stepping stones to success.”</p> <p>H.NO. 1-1-664/B, 2nd floor opposite SBI & Canara Bank Rd, beside Gandhi Nagar Park, Hyderabad, Telangana 500080</p>	
Start Time: 11 AM	End Time: 2 PM
Mode of Examination:	Online: <input type="checkbox"/> Offline: <input checked="" type="checkbox"/>
Evaluation Date:	

Instructions

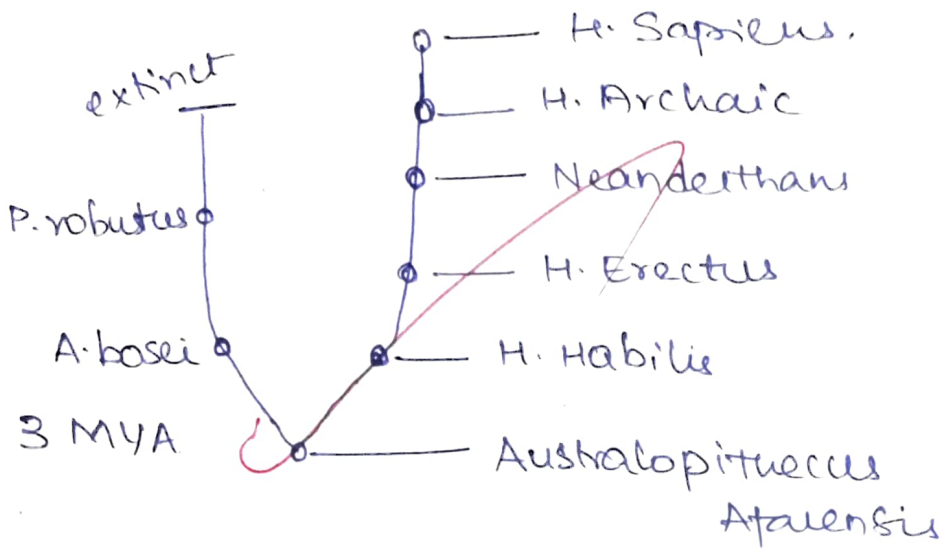
1. There are 8 questions in the question paper.
2. Questions 1 and 5 are compulsory.
3. You can attempt any 3 out of the remaining 6 questions.
4. The number of marks carried by a question / part is indicated against it.
5. Word limit in questions, wherever specified, should be adhered to.

Q.1) Write notes on the following in about 150 words each: (10 * 5 = 50 Marks)

A. Brief note on the Phylogenetic status in primatology

(A) Phylogenetic Status in primatology tries to explain the status or time frame of a fossil in human evolutionary timescale.

- Humans i.e. the current day Homo Sapiens evolved around 4-5 myA.
- The earliest form of the current Homo Sapiens are known to be Australopithecus.
- Thus, the modern Homo Sapiens evolved over millions of years and phylogenetic status helps us know the homo evolutionary pattern on the time scale.
- For example. -



→ Importance of Phylogenetic Status

- Helps us to better understand human evolution.
- comparative study with primates - primatology.
- Helps us to know
 - how our cultural habits evolved.
 - how biological evolution i.e. bipedalism, erect posture etc evolved.
 - the impact of environment on evolutionary process.
 - the evolution of various cultural Organic institutions etc.

(Ex) *H. erectus* can be categorized clearly and undisputedly as Homo.

(Ex) Invention of fire and gathering around fire led to ~~social~~ bonding, thus rise of various ~~socio~~ cultural institutions.

Thus, Phylogenetic Status helps ~~one~~ us understand how we as humans evolved and that forms an important part of anthropological studies.



Structure	1.5	Introduction & Conclusion	2
Content	1.5	Total :	

B. Oncogenes

(A) Human adaptation and growth is the result of genes, environment and other factors.

Oncogenes are the genes that contribute to the growth or creation of cancer causing genes.

Oncogenes are a sub type of lethal genes and can lead to life threatening diseases like cancers.

- Oncology studies the growth of cancers.
- Though, cancers are said to be caused due to a mix of reasons like environment, stress, mutagens, exposure to chemicals, pollution e.t.c, one of the important reasons is also Oncogenes.
- Certain people are genetically predisposed to lethal genes which increase the probability of lethal diseases like cancers.
- Mutations in certain genes may also

lead to cancers.

→ Importance of Studying Oncogenes -

o In the process of Genetic Screening and Genetic counselling of to be parents.

o certain genes are known to prevent cancers.

o Eugenics - to promote good genes and eliminate negative ones.

o Understand the origin, growth and spread of Oncogenes.

Thus, considering the fast changing and stressful lives and increasing cases of diseases all over the world, a study of oncogenes can help us get answers to certain questions which can create a revolution in the world of medicine.

Structure	1.5	Introduction & Conclusion	2
Content	1.5	Total :	

C. Ceremonial exchange types and significance

(A)

Ceremonial exchange, as understood by Malinowski refers to exchange of goods and services within groups or members but not with an economic intention ~~to~~ but with a socio economic consideration.

Characteristics of Ceremonial exch
you have to write

→ Ceremonial Exchange types -

- Kula System - Among the Trobriand Islanders of Massim Archipelago. Refers to exchange of Sautava (arm bands) and mwali (shell necklaces) between members of a kula system. They do not hold economic significance but large socio cultural significance.

Studied by Malinowski

- Potlatch of South Pacific - Group celebration of events (marriage, death e.t.c) where members of tribe come together and conduct a group feasting. A form of redistribution system.

- Wasi system - Studied by Malinowski. Between coastal and inland habitants

of Trobriand Islanders. Exchange of sea food and inland agricultural cereals e.t.c.

o Urigubu system - A system where a man must provide a certain percentage of the agricultural produce to his brother in law.

→ Significance of Ceremonial exchange -

- Helps in maintaining strong socio cultural tribal relationships. (Potlatch)
- Self sufficient nature of tribals.
- Extending alliances and reduces inter ~~tribe~~ tribal conflicts.
- Exchange of goods and services.
- Brings in inter group solidarity.
- (Ex) The Trobriand Islanders of Kula came together and taught the British.

Thus, our modern day lifestyles might not be able to completely understand the value of this but they hold large socio cultural importance in the tribal world.

Structure	1.5	Introduction & Conclusion	2
Content	2	Total :	

0. Magico-religious practitioners

① Magico-religious practitioners are people who work as a intermediary between man and the Supernatural world.

→ Magico religious practitioners -

① Priest -

- Religiously acclaimed
- Enjoys authority given by people.
- Socially valued and respected.
- Act as an intermediary between God and people.

② Shaman -

- Magico religious head.
- Use of guardian or angel spirit to communicate with the other world.
- Common among tribals.
- (Ex) Eskimos.
- Few examples would be crystal ball gazers, tarot reader e.t.c.

③ Medicine man -

- Mostly seen among tribals.
- Uses med. spirits to get rid of diseases. e.t.c.
- Acts as a head of certain tribals

Generally known for white magic. mg
Socially approved.

④ Sorcerers and Witchcraft -

~~Sorcery~~ - Both related to black magic.
- not socially approved.

Sorcerers - malevolent magic.
Proof can be seen (cut lemon, photo, hair, nail e.t.c).
Use laws of magic like-like produces like and Once in contact always in contact e.t.c.

Witchcraft - Unconsciously create harm.
Not intentional.
Their presence is considered negative.

Several time there are cases of murder of people naming them as witches many states like Maharashtra, West Bengal e.t.c have passed anti witchcraft acts.

Structure	1.5	Introduction & Conclusion	2
Content	2	Total :	

E. Rhodesian man

(A) Rhodesian man belongs to Archaic Sapiens i.e they lie between Neanderthals and modern Homo sapiens.

◦ Founded by - Twigelacu and later Hoidlca in 1925.

◦ Where - In a cave in Brooke Hill in Northern Rhodesia, Africa.

◦ What - cranium, a few parts of pelvis, femur and tibia.

◦ Characteristics

→ Climate - Early Pleistocene climate.

→ Culture - Magdalanian culture.

→ Cranium & face

- The cranium was broken.

- Cranium capacity - 1000 cc.

- Rounded occiput and steep behind.

- Slightly prognathous jaw.

- Flat face.

- wide infra orbital region.

- wide nasal hole.

- No chin.

- well developed forehead.

- Teeth is almost parabolic

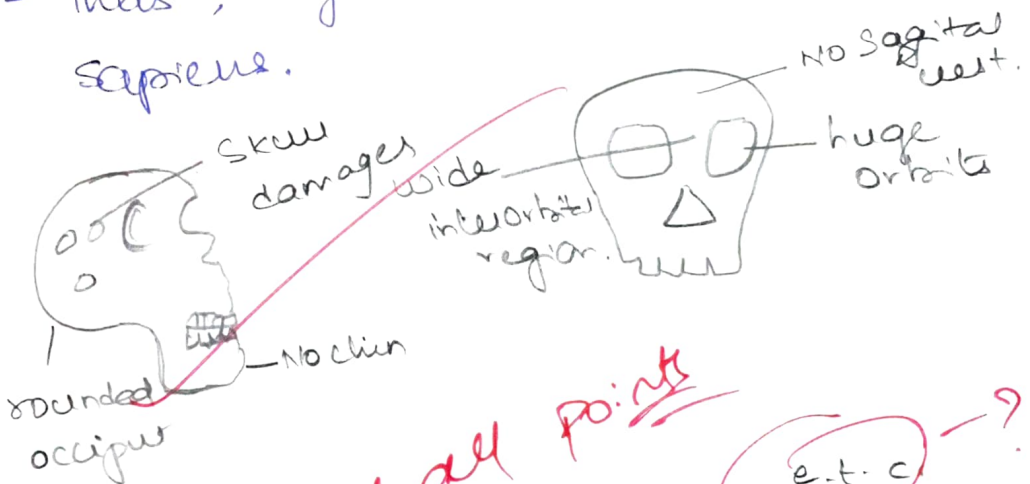
(Approaching human dental shape).

→ Post Cranial features

- Height - around 5' 2"
- Bipedal
- broad pelvic region e.t.c.

→ Phylogenetic Status.

- They lie between Neanderthals and modern day Homo sapiens.
- Thus, they are named as Archaic Sapiens.



Covered all points
6
e.t.c. - ?

Structure	2	Introduction & Conclusion	2
Content	2	Total :	

Q.2)

A. What do you mean by Anthropology? Give a brief note about the major branches of Anthropology and elaborate in detail with special reference to archaeological anthropology. (20marks)

(A) Anthropology is made from two words, Anthopos and logos that stands for study Humanity and study respectively. Thus, it stands for study of Humanity.

According to Heikovitz, Anthropology is the study of humans across space and time.

Aristotle defined Anthropology about as the Gossip about man and Anthropologist as the Gossiper that talks about himself.

→ Major branches of anthropology

(i) Socio cultural Anthropology

Study of culture and society and interplay between them according to Klennick.

Studies the evolution of various types of social institutions like Family, marriage, kinship etc.

↳ Contributors - Malinowski, Bronn, Levi Strauss, Mead e.t.c.

② Biological / Physical Anthropology -

- ↳ Contributors - Darwin, Wallace, Legros Clark, Lamarck, Mead, Auckeneck e.t.c.
- ↳ Oldest branch of anthropology.
- ↳ Studies the physical and biological aspects of humans.
- ↳ Sub fields - Paleontology, Neology, Gerontology, Genetics e.t.c.

③ Linguistic Anthropology -

- ↳ Contributors - Sapir, Whorf e.t.c.
- ↳ Studies the evolution, ~~origin~~ origin and growth of language in a socio cultural context.
- ↳ Studies both verbal and non verbal communication.
- ↳ Sub fields / branches -
 - ↳ Text Free linguistic anthropology.
 - ↳ Text Aided: linguistic anthropology.
 - ↳ Semantics e.t.c.

④ Archaeological Anthropology

A mix of Archaeology and Anthropology.

Study of fossils or archaeological remains in socio cultural setting or perspective.

Contributors - May leakey, Louis leakey, H.D. Shankalia, Robert Bruce foote e.t.c.

Importance of Archaeological Anthropology

- Helps to understand the biological and socio cultural evolution of humans.
- Use of absolute and relative dating methods to study the fossils.
- Has contributed to other disciplines too like medicine e.t.c.
- Branches
 - Pre historic Archaeological Anthropology - before the invention of script of any type.

- Proto historic Archaeological Anthropology - Study of archaeological remains in the absence of presence of script but the script has not been deciphered. (ex) Indus valley civilization.

- Text Free Archaeological Anthropology
- Text Aided Archaeological Anthropology

Thus, Archaeological Anthropology has helped humanity know answers to many questions on origin and growth of our species.

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Structure	4	Introduction & Conclusion	4
Content	4	Total :	

B. Critically examine Darwin's theory of evolution in understanding Evolution with suitable examples." (15marks)

(A) Darwin, in 1859, came out with his work 'Origin of Species' where he tried to explain the evolution of humans.

→ Darwin's theory of evolution -

According to Darwin, evolution is descent with modification.

o Five lines are mentioned by Darwin in regard to his theory of evolution.

- ① There are limited resources and there is growth of population.
- ② Competition among different organisms in order to get resources.
- ③ Survival of the fittest among all characteristics.
- ④ ~~Not~~ Natural Selection of beneficial genes.
- ⑤ Inheritance of these genes by future generations.

→ Darwin's theory in understanding evolution with suitable examples -

Please read
l. 4, l. 5, l. 6
Again

2 ✓

Q.4)
A. Elucidate the significant role of binary opposites and exchange figures given by Levi-Strauss to describe the structural analysis of kinship in the school of structuralism. (20 marks)

(A) Structuralism as a system to study culture and society was given by Levi Strauss and Edmund Leach.

→ Structuralism - Every society has a structure. Any changes in this ^{society} structure are due to changes in this structure. The structure is human mind.

◦ Human mind always things in binary opposites (good, bad; Black, white etc).

→ Significant role of Binary opposites and exchange figures in structural analysis of kinship -

◦ These elements also play a key role in kinship.

◦ Structural analysis of kinship.

→ Elementary exchange - This gives one a clarity on who are consanguines and who can have kinship ties with. closed system of exchange.

(EX) Cross cousins, parallel cousins.

→ Structural exchange - Gives an idea of consanguines and leaves it open to people to choose their mates. Open system of relationship.

i) Restricted exchange - Restricted only between few groups.

(Ex) Moieties of Todas.

ii) Non restricted exchange - No restrictions

(Ex) lineage, clan based e.t.c.

→ Significance of binary opposites and exchange figures -

o These binary opposites also manifest in relationship.

(Ex) Endogamy, Exogamy

o Also leads to rules of relationship like preferential, prescriptive, prescriptive rules e.t.c

Thus, Structuralism as a concept has helped anthropologists unravel the structure existing in various kin social institutions.

kin

Q.5) Write notes on the following in about 150 words each:
(10 * 5 = 50 Marks)

A. Evolution of Fieldwork tradition in Anthropology

- (A) ~~Ex Fieldwork tradition / Participant Observation in Anthropology was founded by Malinowski during his fieldwork in Trobriand Islands (1915-1918)~~
- Began with Malinowski but later several anthropologists contributed.
 - Andaman Islanders by R.C. Brown.
 - Alor of Indonesia by Coradu Bois.
 - Admiralty Islands, Samoa of Polynesia by Margaret Mead.
 - Kwakiutl, Dubos, ~~Ap~~ Apollos by Ruth Benedict.
 - Todas of Nilgiri by Henry Morgan.
 - Franz Boas also contributed to fieldwork studies.

The fieldwork tradition has not been static but has undergone a lot of changes too.

- From etic (outsiders view) to Emic view (insiders view).
- Use of translators to learning language ourselves.
- observation to interacting with the people of a culture.
- Ethnographic Realism to Reflexive anthropology.
- Use of poetic to dialogic method.
- Only noting down of observation and not interpreting them.
- Cultural Relativism as a hallmark.
- No place for ethnocentrism.

Thus, all these factors have led to a fieldwork tradition gaining a special significance in anthropology.

Schools
of Fieldwork
tradition

Henry
Morgan

↓
Fritz Boas

↓
Malinowski

Structure	1.5	Introduction & Conclusion	2
Content	1.5	Total :	

B. Discuss Sheldon's method of somatotype.

(A) Sheldon inspired by Barbara Heath and Carter decided to give her own method of Somatotype after taking into consideration the shortcomings of their method.

→ Sheldon's method

- Takes into consideration height, weight, Cephalic Index, ~~the~~ Supra Spinal Skin fold, calf fold etc.

- The somatotype is given as a measure of three number (8-8-8) where the

- 1st number shows the degree of ectomorphy (8-1-1).
- 2nd number shows the degree of mesomorphy (1-8-1).
- 3rd number shows the degree of endomorphy (1-1-8).

An average individual is around (4-4-4)

- o Ectomorphy - Thin, less fat, less fat in trunk region and extremities. High durability. Eligible for sports like skating, swimming etc. (8-1-1)
- o Mesomorphy - ~~Roundedness, fat at the trunk region and thin ext~~ Muscular body, medium level of fat, broad shoulders, high strength and durability. Athletic type of personality. Sports like Basketball, football etc. (1-8-1)
- o Endomorphy - General roundedness, fat in the trunk region, thin extremities. Generally, a somatotype not considered ideal for sports. However, correct diet and training can let anybody pick any type of sports but the somatotype remains fixed and decisions must be taken keeping this in mind.

Structure	2	Introduction & Conclusion	2
Content	2	Total :	

C. Social context of linguistic anthropology.

(A) Linguistic Anthropology refers to Study of language in socio cultural context.

→ Social context of linguistic Anthropology

- Language and its usage depends on several factors.
- Age - Younger people tend to have a rebellious style of talking and the usage of street smart language.
- Sex - women tend to use more pauses, talk more on a subject. Men tend to be more aggressive and follow a ~~rap~~ Report style of talking.
- Class - lower class people tend to have aspiration towards upper class and thus use high class style of language. Thus, they also tend to make mistakes more.
- Occupation - (Ex) Doctors tend to use different style of communication and

usage of words. The same goes with people of other professions.

◦ Dialect - The same language might be used in a different way in a different region.

(Ex) Different dialects of Hindi across North India.

◦ Sociolect - Our social and cultural setting also influences our language.

(Ex) Sapir Whorf hypothesis.

Thus, language is not static and is influenced by several socio-cultural factors. Thus, this makes the need of linguistic anthropology even more essential.

Covered all points

5/5

D. Contribution of Franz Boas to the endangered language.

- (A) Franz Boas was the first person to point towards the endangering and extinction of tribal languages worldwide.
- o He is the founder of the Historical Particularism School and also American School of Diffusionism.
 - o He focussed on learning the local language to interact with people.
 - o Contribution to endangered languages -
 - brought international focus on extinct and endangering of tribal languages.
 - focus on documentation of languages.
 - emphasized that extinction of language would mean extinction of culture and thus they must be protected at any cost.

Q.7)
 A. Define Somatotype? Describe the salient features of somatotype. Write its present relevance and significance with the various Growth methodologies involved in it. (20marks)

(A) Somatotype can be defined as the study of body composition i.e. height, weight, muscle, fat proportion and other indices related to various body types. Heath, Carter, Sheldon e.t.c. have worked on the study of Somatotypes.

→ Salient features of Somatotypes -

- Helps us to understand the various types of body built around us.
- Understand various body builds on the basis of muscle, fat, Body mass Index, Cephalic Index e.t.c.
- A branch of physical anthropology.
- Helps in the reconstruction of fossils of humans.
- Applications include Sports anthropology or kinanthropometry, facial recognition e.t.c.
- Helps in diagnosis of diseases, the

type of treatment e.t.c in medicine.

- Sports - type of training, diet, which sports can one pick up e.t.c.

→ Present Day relevance and significance

- Used in Sports or kinanthropometry.
- Sheldon's method used widely in the field of medicine, research e.t.c.
- Forensic anthropology also makes use of these methods.
- Customized ~~diet~~ diet, exercise, treatment of diseases e.t.c for people based on body type.

→ Growth methodologies

◦ Longitudinal method

- study only one person over a long period of time at different age.
- NO influence of race, environment differentials e.t.c.

- Criticisms [Time taking
[what if the person

young?

o Cross Cultural method

- pick many people from different ages and study them.
- Faster and efficient.
- Replacement possible on the death of an individual.

Criticism

- Difference of race, environment possible.
- Not an accurate study
e.t.c.

o Mixed method

A mix of longitudinal and cross cultural method.

- Different people picked from different ages studied for a long period of time.

- Benefits - the criticisms of both the above methods can be done away with.

- larger set of information.

Criticism [longer and time taking,
 complex.]

9+2

	3+1	Introduction & Conclusion	3+1
	7	Total :	

B. Critically evaluate the different factors affecting the growth and development of human beings. (15 Marks)

(A) Growth is a purely quantitative aspect of increase of size or ability of a human.

Whereas, Development relates to the quantitative aspect of increase in functional ability of humans.

→ Factors affecting growth and development

(1) Genetics / Heredity

Genetics can determine chromosomal abnormalities, height, intelligence e.t.c.
Recessive and Dominant Genes may lead to expressing of certain characteristics. (Ex) Erythroblast's Fibrosis.

Criticism

Only genes cannot influence. It is coupled with environment, nutrition e.t.c.
Genetic screening and Genetic counselling is helping in identifying the negatives of genes.

② Environment

— Socio cultural environment and geography also play a major role.

— (Ex) Twin study method, cotwin study method, foster child method to study the effect of environment.

— Intra uterine environment also has a role to play.

— (Ex) Exposure to androgens etc.

— Allen's Rule, Bergmann's rule, Glogger's rule can help understand the influence of environment.

Criticism

— Environment constantly changing, cannot be considered stagnant.

— Environment can only lead to expression or repression of already existing characteristics due to genes.

③ Nutrition -

— Nutrition of mother, child has a role in growth and development.

— Kwashiorkor, Marasmus, Anemia

are some of the examples.

Body mass Index, Cephalic Index etc used for study.

Criticism

National and international efforts are required.

Nutrition influenced by multiple factors.

→ Other factors affecting growth and development

Education of mother.

Socio economic status of family and nation.

Religious and cultural beliefs etc

Thus, growth and development is a result of several factors that are interplaying and interacting with each other in the human evolutionary process.

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	7	Introduction & Conclusion	7
	7	Total :	

C. Discuss the Biological & Socio-Ecological factors influencing fertility, fecundity, and mortality in the present generation with suitable measures to control it. (15Marks)

A) Fertility is the actual reproductive performance of a person. (Thompson and Levine). Calculated with Total Fertility Rate.

Fecundity is the ability to participate in the process of reproduction.

Mortality is the end of any ~~social~~ physical, mental or social signs of life according to WHO.

→ Fertility -

Biological

- Reproductive health of man and women.
- Presence of any reproductive issues. (Ex) PCOS, PCOD in women, Prostate Cancer in men
- Frequency of coitus.
- Use of contraceptives.
- Age of the couple.

Socio ecological

- Age at marriage.
- Importance to marriage and procreation.
- Religion (Procreation vital)

- for salvation in many religions).
- Family system (Joint / Nuclear).
- Occupation of husband and wife.
- Development of a nation.
- Emphasis on male child e.t.c.

→ Fecundity -

Biological

- certain conditions like low libido, impotency e.t.c.
- Separate living, widowhood e.t.c.

Ecological-Social

- Taboo on pre marital sex.
- Divorce, singlehood, separation e.t.c.
- lack of interest (Ex-Japan).

measures

- Increasing sex education.
- Availability of different types of contraceptives or birth control e.t.c.
- Economic development of nations
- Increasing awareness.
- Genetic counselling & awareness
- National Population Policy.
- Strict implementation of policies e.t.c.

→ Mortality

Biological

- Any diseases (Cancer e.t.c).
- Access to treatment.
- Biological predisposition to diseases.
- Effect of stress, pollution e.t.c.

Social Ecological

- Development of country - medical facilities.
- Ability to afford treatment.
- Education and level of awareness e.t.c.

Thus, Fecundity, Fertility, Mortality play a crucial role in the Demographics of a country. Population of a country plays an important role in its development thus policies must be made to develop them.

9

	3	Introduction & Conclusion	3
	7	Total :	

Q.8)

A. Write the meaning and scope of forensic anthropology and write a brief note role of forensic anthropology in the field of personal identification highlight its challenges and limitations related to investigation methods? (20marks)

(A) Forensic Anthropology is the use of anthropological methods in the detection and prevention of crime. It is a subbranch of physical anthropology.

→ Scope of Forensic Anthropology -

- Helps in the prevention and detection of crime.
- Facial reconstruction of victims or be unidentified bodies.
- Paental diagnosis in case of rape, property disputes, pre marital pregnancy e.t.c.
- Personal identification using morphological, morphometric methods, ~~RNA~~ DNA fingerprinting method e.t.c.
- Helps in maintaining offenders registry e.t.c.

→ Methods used

- Dermataloglyphics.
- DNA fingerprinting.
- Karyotyping.
- morphological and morphometric indicator e.t.c.

→ Forensic Anthropology in the field of personal identification.

- In certain cases, it is difficult to identify faces and bodies of victims
 - due to destruction of face.
 - burnt and charred bodies.
 - decomposed bodies e.t.c.
- Here, Personal Identification comes into play.
- Methods employed
 - Facial reconstruction of victims using clay or 3D computer imaging.
 - DNA testing in case any relatives of the person are available.
 - Age - using ossification of bones, amount of fluorine deposited

In bone, teeth e.t.c.

- Sex - Seeing the hip region. Hip and pelvis region of women is wide.
- Race - using various cephalic, nasal indices e.t.c.

→ Challenges in investigation methods -

- o Requirement of Infrastructure to build forensic labs.
- o Forensics as a discipline not widely established in many nations.
- o The testing kits, labs e.t.c. are quite expensive.
- o Not a full proof method of identification.
- o Need for permission to be taken from multiple authorities.
- o Clay modelling - irrelevant now after coming of computers and technology.
- o officials not trained in forensics.

→ Limitations

- ↳ Ethical Issues.
- ↳ Chance of leaking or misuse of data.
- ↳ No proper data protection law in place.
- ↳ Forensic anthropology has to work in tandem with other fields to be use.

Thus, Forensic Anthropology as a discipline has the potential to revolutionize the area and fields of ~~in~~ crime and investigation. There is a need to build infrastructure, train officials and people in order to take full advantage of the discipline.

12

Good answer

	1	Introduction & Conclusion	4
	1	Total :	

B. Write the meaning of the facial reconstruction and give a brief note on the anthropological inputs in facial reconstruction.?
(15marks)

(A) Facial Reconstruction is a branch of Applied Anthropology in Physical Anthropology.

Facial Reconstruction as the name suggests deals with the reconstruction of a victim's or any other person's face in case of destruction of face, burnt bodies, decomposition etc.

It is widely used in the field of Forensic Anthropology.

→ Anthropological Inputs in the field of Facial reconstruction -

(Methods) $\left\{ \begin{array}{l} \text{Clay modelling.} \\ \text{3D computer imaging etc.} \end{array} \right.$

• Anthropology through its method of study of different races has provided the methods by which people of different race can be identified.

- (Eg) Cephalic Index, Nasal Index e.t.c.
- Comparative methods to understand different people.
- Socio cultural context of human growth and development. ✓

↕ Please
read
model answers

C. Elaborate on the role of heredity and environment in the formation of the races and substantiate whether race is the valid concept? (15 Marks)

(A) According to Dobzansky, race is a group of population who are reproductively isolated to an extent such that the exchange of genes between them is so less or absent such that the difference in characteristics are not diminished.

→ Role of heredity and environment in the formation of races -

- o Role of heredity -
 - Inheritance of traits from one generation to another.
 - Almost negligible race crossing leads to absence of mixing of characteristics and thus exclusive ownership of certain traits.
 - Race is more to do with morphological differences rather than genetic.
 - However, certain traits like ~~Hb~~ Haemoglobin (Hb), G6PD, Rh

factor, blood group differentials still exist.

(Ex) O+ve blood group is common among caucoids whereas B+ve among Negroids.

o Role of environment -

- Skin colour - Glogger's rule - temperature influences skin colour. (Negritos - tropics).

- Body Shape and Size (Allen's Rule and Bergmann's rule).

cold climate + large bodies and small extremities.

Hot climate - small bodies and large extremities.

- Hair colour, texture e.t.c influenced by environment. (Negritos - woolly).

- Nose Shape, cranium e.t.c also influenced by environment.

→ Is race a valid concept?

NO - No race has exclusive ownership

of genes.

- Race crossing and globalization has reduced the significance of race.
- How many genes need to be different to make a race?
- Intermixing of races has led to intermediate groups like Australoids etc.
- Most of the differences are of form and not function.

Thus, ~~UNESCO~~ UNESCO declared that all humans belong to Homo Sapiens and that race is purely a psychological myth in 1951.

9