



An Institute for IAS Exam
(By a Group of JNUites)
Web: www.l2a.in Email: l2adelhi@gmail.com

Anthropology (Test code: AN02TS11-19)

Mobile No: 9899776680

Email: anuruddh981@gmail.com

Name of the Candidate ANIRUDDH YADAV

CSE Roll no.

Place ORN

Time 11:05

Test No.

Class room

Distance Learning

Date

28/08/19

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	50	27 1/2
2	50	
3	50	26
4	50	26
5	50	31 1/2
6	50	26
7	50	
8	50	
9		
10		
11		
12		
13		
14		
15		
16		
17		
Total Marks Obtained		

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz., Name, Admit card no and Test Code).
2. There are **EIGHT** questions printed both in English and Hindi.
3. Candidates has to attempt **FIVE** questions in all.
4. Question No. 1 and 5 are compulsory and out of the remaining, **THREE** are to be attempted choosing at least ONE from each section.
5. The number of marks carried by a question/part is indicated against it.
6. 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 Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one.
7. Word limit in questions, wherever specified, should be adhered to.
8. Answers of questions shall be counted in chronological order.
9. Any page or portion left blank in the Question-cum-Answer Booklet must be clearly struck off.

Signature of Examiner

Feedback/Comments

4). Discuss all your copies in person before the exam.

While quoting/stating

thinkers - Try to state/

Show as far the

topic specific thinker - i.e.

Some thinkers are more significant

to some topics - to such -

You should not miss quoting them.

R

Dear Anirudh.

1) you have attempted well.

L2ATM

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2) Yes for some Q's - you need to focus on your answer conclusions → as few are them are not have any concluding lines.

Anthropology Test Series

AN02TS11_19

3) If a Q has two or more components

Time allowed: **Three Hours**

Maximum Marks: 250

don't end your answer with only

Candidates has to attempt **FIVE** questions in all. Question No.1 and 5 are compulsory and out of the remaining, **THREE** are to be attempted choosing at least ONE from each section. The number of marks carried by a question/part is indicated against it.

Word limit in questions, wherever specified, should be adhered to.

Attempts of questions shall be counted in chronological order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion left blank in the answer book must be clearly stuck off.

This is Question-cum-Answer booklet, questions to be attempted in the provided space

one component or rather end with a general significant for lines

Linguistic Relativism
is more appropriate.

L2A™

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SECTION - A

Q1. Write notes on the following in about 150 words each

10x5=50
10

(a) Sapir-Whorf Hypothesis

Sapir-Whorf Hypothesis refers to
Theory of Linguistic Determinism ^{change this} which
states that the language one speaks
determines their world view and
way of perceiving the world.

Strong Relation
Extreme Linguistic Determinism

An Extreme form of linguistic
determinism states that the complete
cognitive process is shaped by one's
use of language which leads to
usage of concepts and understanding of
change the term terminologies.

according to Penn: in his book
"Linguistic Relativity".
the world. Thus all people speaking various

different languages have separate
World Views and cognitive process.

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Innate

Ideas

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(1972)

Strong Relativism

Weak Relativism

Mild Linguistic Determinism

This is more widely accepted and
refers to the concept that language
is one of many determinants of
cognition and thus it should be
considered -

refer to other sources

eg SA Tyler's study of Korwa saw they
use 7 words for bamboo and only
1 for bag, mist, ice etc viz-a-viz.

the Americans thus leading to a
different capacity to think about

the concepts, however, this does not
mean inability to understand.

5

(b) Thick description

10

The ~~Thick~~ description was given by
Geertz in his concept of interpretative
~~anthropology~~ as he believed culture
 to be a multidimensional concept.

Culture as interpretative

Geertz theorised that Culture is
 an amalgamation of a myriad of
symbols - ~~actions, objects, institutions~~ -
 and the interpretation of these
 is important.

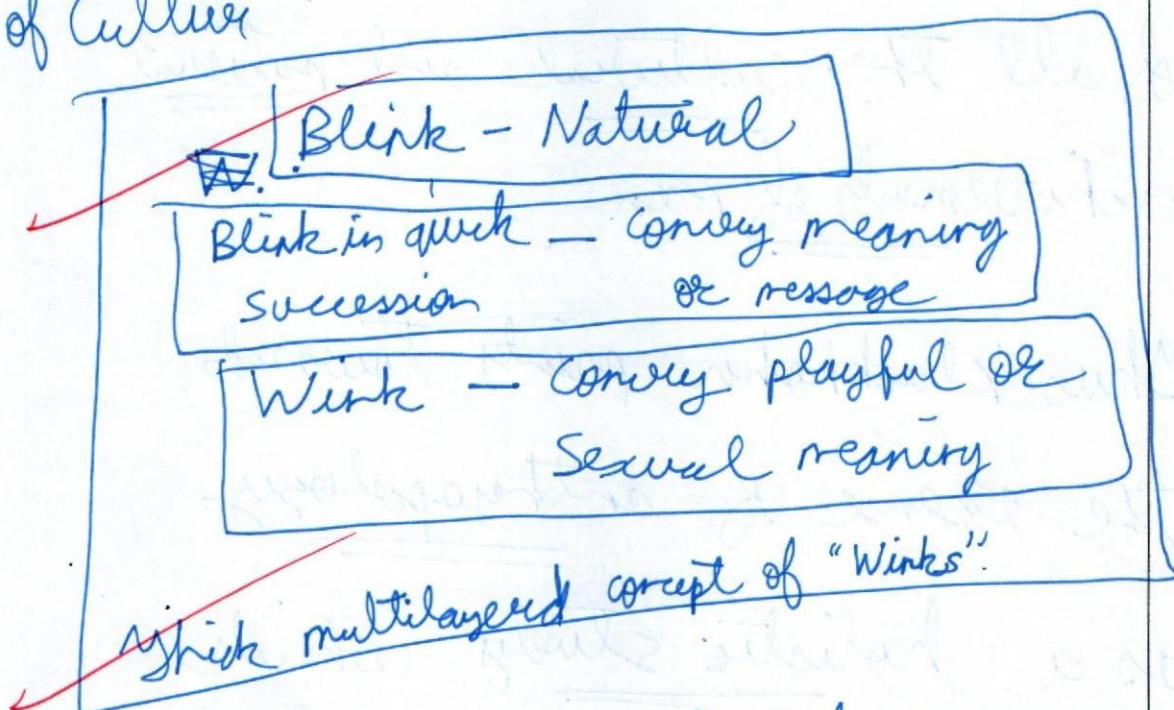
add this
 Gilbert Ryle

Thick Description

For Geertz Culture is multilayered
 with each symbol conveying

multiple meaning and thus one **L2A™**
~~must~~ understand all the elements of
culture and symbols to develop
a ~~truly~~ interpretive thick description
of Culture

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Thus Givens believed in the text and
thick description of culture which
involved high amount of subjectivity
and depth of understanding to study
and understand culture.

eg: used in his
cock fight of
Balanes:

(5/2)

(c) The Essence of Anthropology

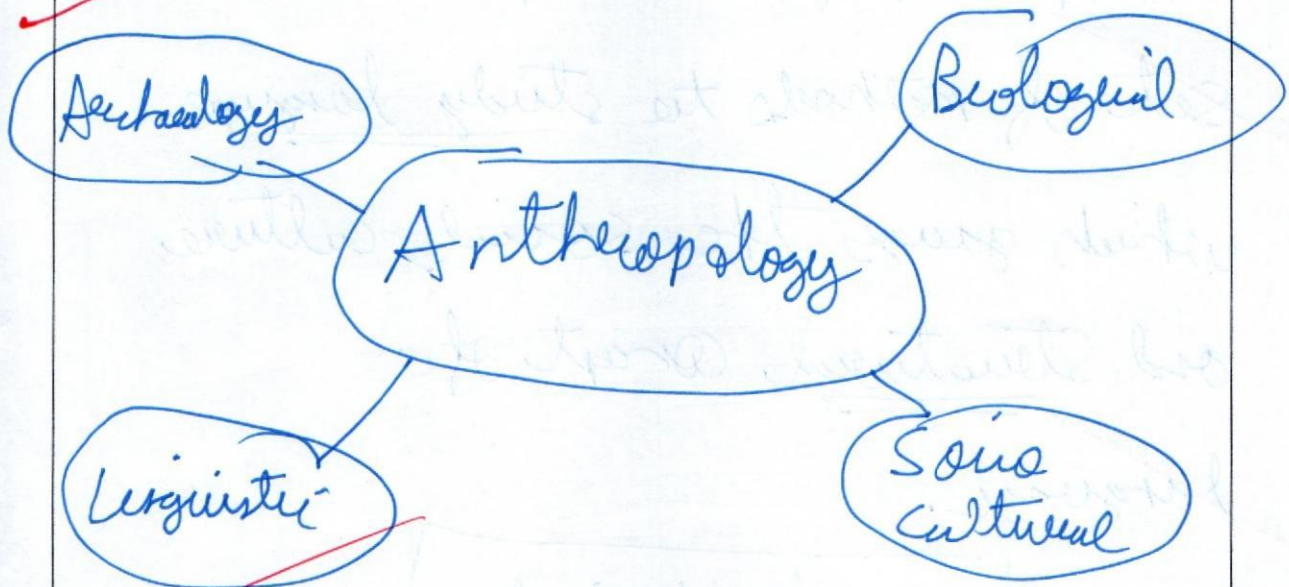
10

Anthropology as defined by Kluckhohn
is a mirror where humans can
peek to get an unbiased reflection
of all the cultural and material
achievements of man."

Thus Kluckhohn points towards
the essence of anthropology
as a holistic study which
deals with all aspects of
humanity. Its historical,
diachronic, synchronic approach
along with its emphasis on

society and culture gives it the
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statute of a Complete Science

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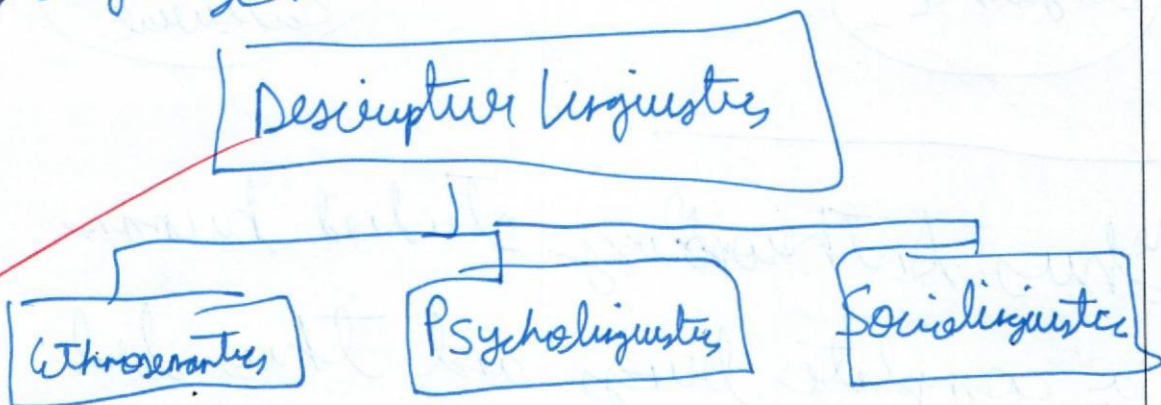
Thus Anthropology studied humans
as complete beings and thus led
to the development of concepts of
applied and action anthropology which
not only allow for benefits but
also for humans to understand and
appreciate their entire culture.

5½

(d) Descriptive Linguistics

10

~~Descriptive linguistics~~ refers to a set of methods to study language which gauges the social, culture and structural aspect of a language.



① Ethnolinguistics refers to the study of ethnic use of language vis-a-vis each other. Thus providing the structure and usage of language in a

society

② Psycholinguistics

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It refers to study of the cognitive basis of language which allows ethnographers to understand the emic view of the society.

③ Sociolinguistics

It refers to the sociological usage of language with respect to different aspects of society

eg. Tamils ~~is~~ ~~are~~ use different words for water thus indicating

the social use of ~~the~~ language based on Class stratification

5%

GV Childe in his book "What happened in history" called Neolithic the 'Neolithic Revolution' due to a rapid change in the systems of production.



Material Culture

Tools

Neolithic saw 3 type of industries

① Polished and Unpolished

New polishing methods by use of Celt stones

etc led to new maces, adzes, axes, stones
etc made of polished stone

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Ring Stone



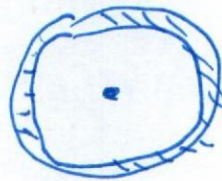
adze



axes



celt
stone



Mace head

add
any
significance
of these

② Blade and Burying industry



One sided
edged and unedged



Burying



Double sided
edged

6

③ Microlith industry



Geometric & non Geometric microlith

Art and Pottery

Use of new ¹³Home out and use of wheel
for Red ware, Black ware pottery etc.

- Q2. (a) Discuss the problems of Structural Violence and role of Anthropology in addressing them and suggest your own remedies

20

- (c) Write note on Radcliffe-Brown's contribution to structural functionalism theory

15

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very
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Q3. (a) Evaluate how Leslie A. White's approach is helpful in understanding cultural Evolution

15

L.A White through his books "The Science of Culture" and "The Nature of Culture" gave evolutionary theme of cultural evolution.

Energy Approach

L.A White understood evolution as a direct correlation with the energy produced per capita by the culture. *say about techno*

$$E = T \times P$$

determination
in his
approach.

[E] \Rightarrow Cultural Evolution / Progress

[T] \Rightarrow Technology (Efficiency of Use of Energy)

[P] \Rightarrow Production of Energy / capita

science
Resources *for* women Beautiful *for ex. the concept of*
success Beauty is who *determined*
by this

clearly shown.

He studied the notion to social institutions and Material Evolution.

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$$S = N \times T \times R$$

Social evolution $\rightarrow S$
 $N \rightarrow$ Nutrition
 $T \rightarrow$ Technology
 $R \rightarrow$ Reproduction

$$E = T \times M$$

Material Evolution $\rightarrow E$
 $T \rightarrow$ Technology
 $M \rightarrow$ Material Use

Evolutionary Stages

① Savagery

Energy use is human, fire based
with man being a hunter gatherer.

Simple Economic resources, simple technology
of bone and arrow and simple religious
beliefs

② Barbarism

Energy use is human, animal, fire,
wind, water, sun.

As man became a food producer he used agricultural tools and thus domestication of animals happened. Surplus production led to complex division of labour and sedentary life led to political organisation.

③ Civilisation

Energy Use : Nuclear, Solar, coal, oil etc

Complex social structure and division of labour with varied occupations.

Complex political organisation and stratified society -

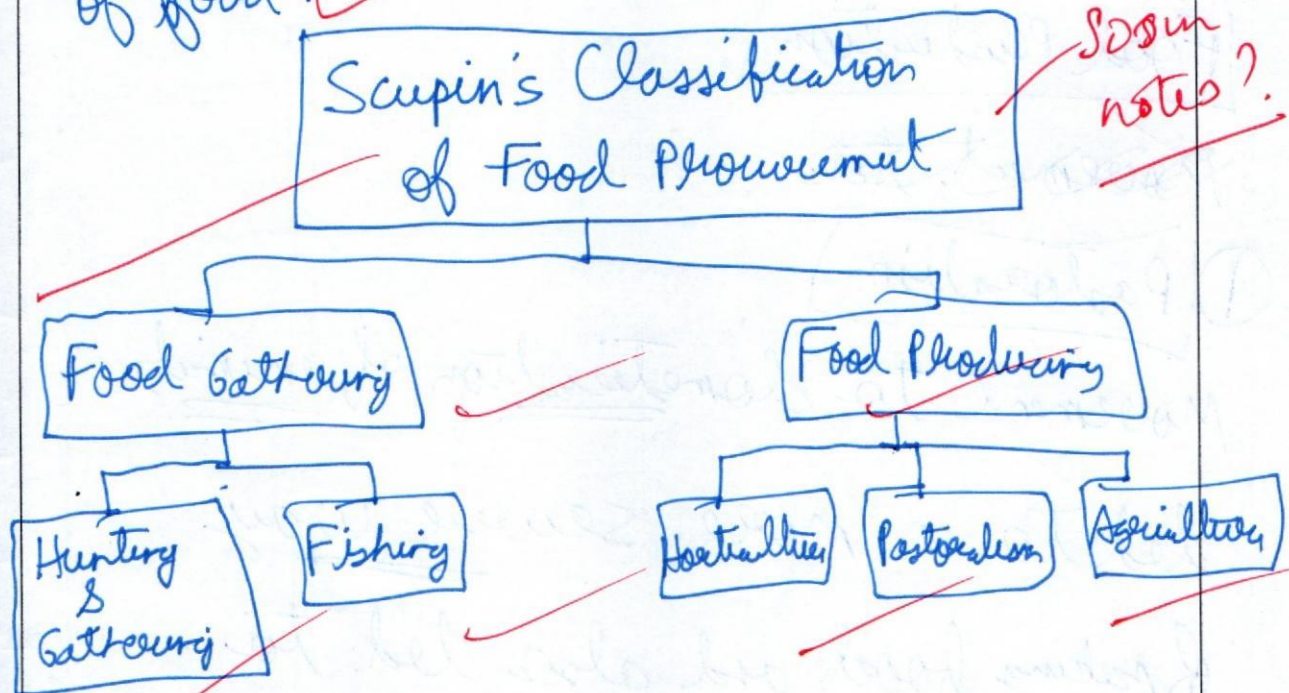
Criticism

- ① Over emphasis on material technology
- ② Universal approach and not accounted for local variation

- (b) Although food production is not necessarily a more secure means of subsistence than food foraging then why humans became food producers. Discuss

20

Humans have required food since
time immemorial and thus have
evolved various methods of procurement
of food.



Food Gathering

As a method of Procurement of food
it is characterized by :- ^{to be}

① Nomadic life

27

This part
linked to the
Q asked

② Band type organization

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③ No basis of Culture formation due
to constant movement

④ No food surplus due to poor
collection and storage

Food Production

~~Movement to~~

① Pastoralism

Movement to domestication of animals

led to a more secure way

of making food and also led to

a quasi-sedentary pattern of life

② Horticulture and Agriculture

Domestication of plants initially

was not exclusive and thus

led to ✓

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① more Security as no loss of life
during hunting

② Sedentary pattern of life allowed
for psychic security which
according to R. Linton is one
of the basic desires. ✓

③ Opportunity to develop culture
due to single location of
settlement ✓

④ Division of labour due to
surplus production led to new
specialised occupations

⑤ Ordered Society based on peace

and norms due to complex
political systems,

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⑥ Increased opportunity of societal
and cultural development

Thus despite not being a
sure and guaranteed method of
food procurement food production
allowed for the locals to
enjoy the benefits of culture
and develop intellectually and as
a society.

(10th)

add some
approaches
that say about
food production

(c) Write a note on field work tradition and its importance in the development of Anthropology

15

Definition

Field Work refers to the method of proximal and participant observation of a group in order to acquire detailed information on the group.

Evolution of Fieldwork

① 19th Century Anthropologists were criticised for "arm chair" approach thus led to direct Field Work study.

Even before this L.H. Morgan.

② Jenssen North Pacific Expedition (1898) by Boas was the 1st major expedition.

③ Torres Strait Expedition near Australia (1899) was the 2nd however both these were short term

④ RC Brown's study of Asaman **L2ATM**
(1905-60)

Islanders changed the approach as
detailed study characterised by

- ① Long duration of stay
- ② Learn local language
- ③ Participant Observation.

⑤ Malinowski's study in Melania
(1919) -
in "Argonauts of Western Pacific" changed
the fieldwork tradition forever -

- ① Very long duration of stay
- ② Complete immersion and participation
- ③ Master local language
- ④ Cultural relativist and Objectives

⑥ Post World War II the notion
of applied fieldwork for village studies

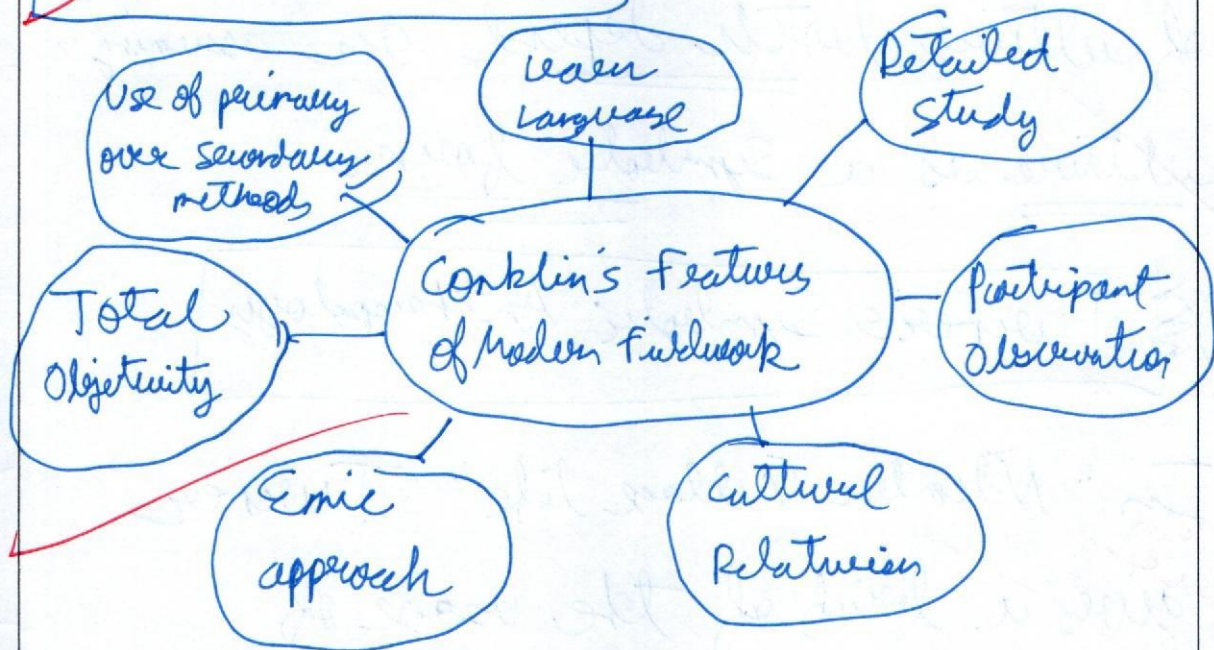
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led by Redfield etc led to use of anthropology for policy formulation.

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Modern Fieldwork



Thus fieldwork became the core of ethnographical studies and gave anthropology a scientific basis based on objectivity thus leading to further its place as a holistic discipline.

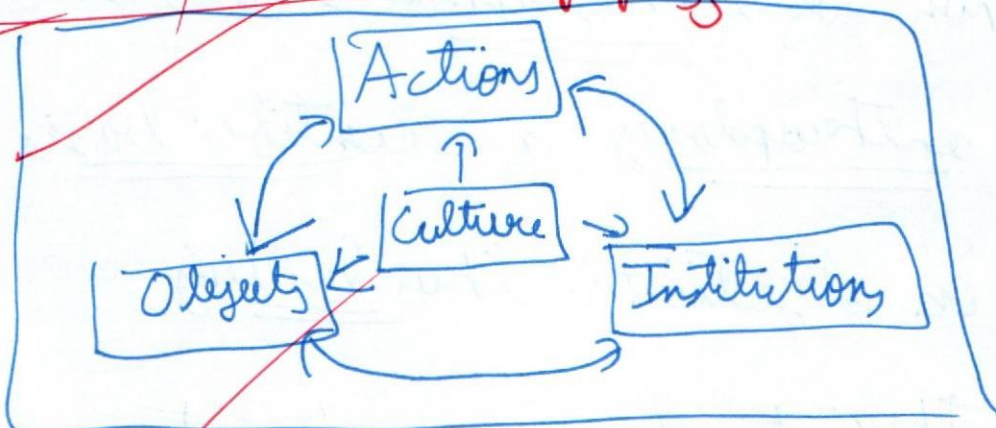
Q4. (a) Bring out the contributions of Turner and Greetz in symbolic and interpretative theories in Anthropology

20

Symbolic and Interpretative theories of culture both depend on assuming culture as a Symbolic form

① Turner's Symbolic Anthropology

Darkhutam influence
In "Ndembe Village life" Turner gives a brief of the usage of symbols in culture and calls them "Vehicles of Culture". *check? -*

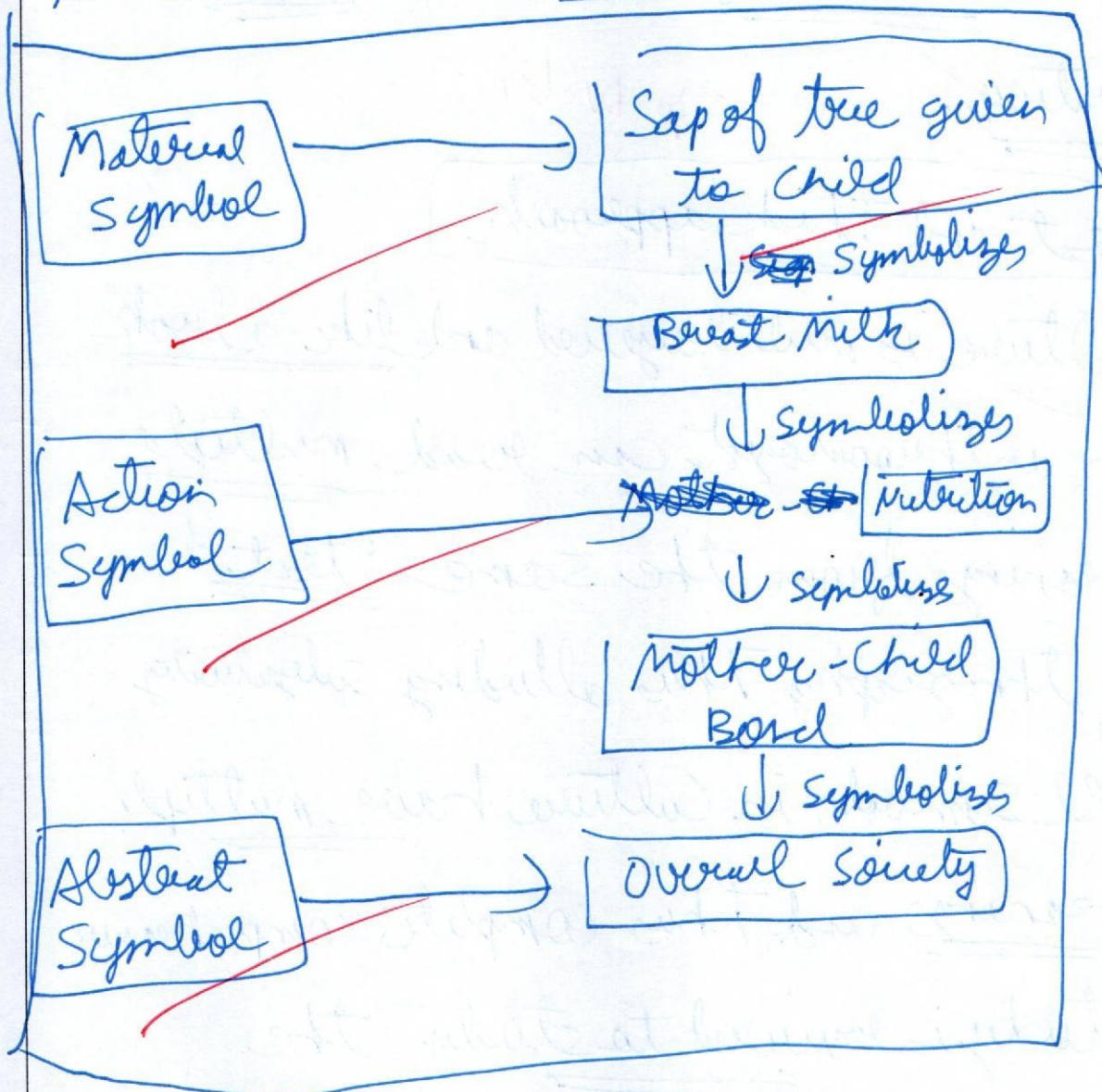


Culture ⇒ Interaction of the 3
kinds of Symbols

Culture is a misc of the interaction and interdependence of these symbols **L2A™**

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He gives the example of Ndembu society
where when child is born he is taken
to a tree and given sap.



Thus Turner gave a similar approach
for all types of actions in society

and linked them to abstract symbols within culture.

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② Geertz's Interpretative Anthropology

Geertz interpreted culture as an integrated amalgamation of symbolic features.

by Weber.

Text and Thick approach

Text Culture is multilayered and like a book an anthropologist can read multiple meanings from the same 'text' of ethnography thus alluding subjectivity

Thick All symbols in culture have multiple meanings and thus complete comprehensive study is required to study the layers of culture thickness

Ethnographical Approach

To give a ~~complete~~ ethnographical **L2A™** picture one must study society from 4 perspectives

- ① Ideal → Ideal Notions of Society
- ② Real → Actual Notions of Society
- ③ Scholar's view → Ethnographer's interpretation
- ④ Personal View, what Emic view is

Balinese Cock Fights

~~G~~ Gertz studied Balinese ~~&~~ cock fights and opined that they are symbolic

- ① Aggressive cocks → Like men of and fighting symbols, society
- ② Desire to win → symbolize Desire to do well in life
- ③ Respect and importance symbolize People want appreciation

→ add a general concluding line

This part is incomplete in your answer.

1st state F.B. Tyler as he wrote one who for asked about

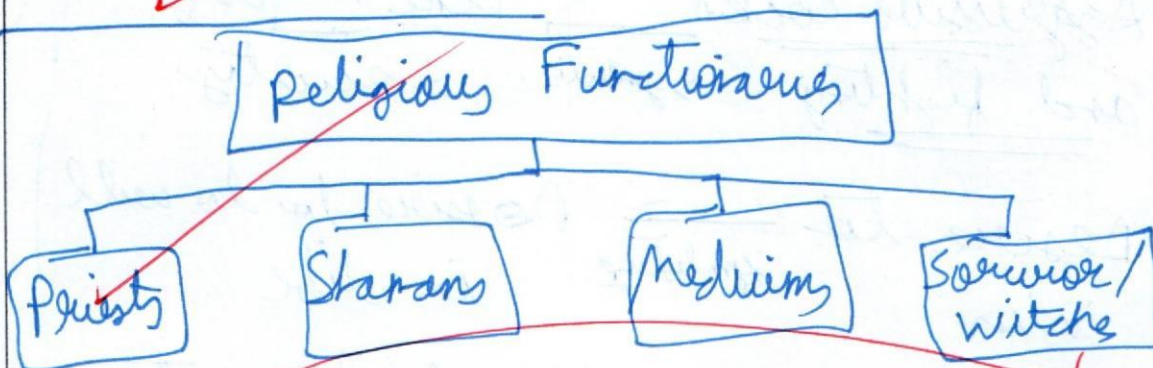
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(b) How anthropologists defined religion? What role do the religious functionaries play in simple and non-literate societies?

For R.C. Brown religion can be understood as a belief in the supernatural

For E. Durkheim in his Elementary Forms of Religion refers to a "set of beliefs and practices which are related to the concept of sacredness and the followers are united into a single moral community called Church."



according to Anthony Wallace?

38 Show according to Chronology?

significance of thinkers -

→ add its/ Religions - characteristics
3-4 points

① Priest

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Who: Male full time functionaries who are
facilitators of contact between people and
god thus enjoy high status

Role: Responsible for all the rituals
and are specialists of the religion
and thus as vehicles of interpretation
of god's message they often enjoy
special status in society and
hold political positions

Society: Usually literate or complex
politically advanced societies can

② Shaman/ Medicine Man

add any
Levi Strauss point

Who: Part time functionaries believed to or his
have special healing powers Definition
of shaman.

Role: Magical functionaries who are
responsible for healing and thus.

enjoy high status. They are experts of local medicine and are interpreters of dreams and "Divine messages".

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[Society]: Simple societies with moderate level of political-economic organization

③ [Medium]

put any thinker
where to

[Who]: Part time, mostly women, ~~and~~

[Role]: Bless the local area by getting "possessed" by the local deity and thus are "vehicle of divine expression"

[Society]: simple societies mostly but are also seen in modern society

④ [Sorcerer and Witches]

[Who]: Designated by Society as major functionaries

[Role]: Scapegoats of ⁴⁰ local frustrations

[Society]: Simple to modern Society

(c) Is culture unique to human beings? Critically examine

Culture as defined by E.B. Tylor refers to a complete way of life which involves the Beliefs, Customs, Ideas, Morals, arts and any other capacity developed by man.

Culture In Humans and other Animals

~~Culture~~ has been defined ~~to~~ for and by humans and to extend it to other ~~animals~~ first we must understand culture with respect to humans :-

① Ethos and Eidos of Society i.e. cognitive ability and Viewpoint is expressed through culture according to Krocher

② It forms the basis of Social interaction

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③ Common to a society as a whole

④ Provides means of Communication and interaction

⑤ Sine qua Non of ~~Culture~~ Society

Culture in Animals

Most animals exist in groups and have certain patterns of behaviour repeated over generations which signify presence of culture.

eg ① Ants Communicate and Coordinate very effectively

② Elephant herds are like a family and express mourning when a member dies thus scholastic solidarity

③ Chimpanzees studied by J. Goodall

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~~displayed remarkable capacity of~~
culture as they understood upto
110 distinct words and symbols

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~~However, there are many points of~~
difference:-

① Human complexity of Speech is unmatched
to express intricate concepts

② Process of passing on culture, specially
through written form is very
distinct

③ Humans have evolved secondary and
tertiary cultural traits for leisure
fashion etc, while animals traits are
more need based

8 Apr 15
model answers

SECTION - B

Q5. Write notes on the following in about 150 words each

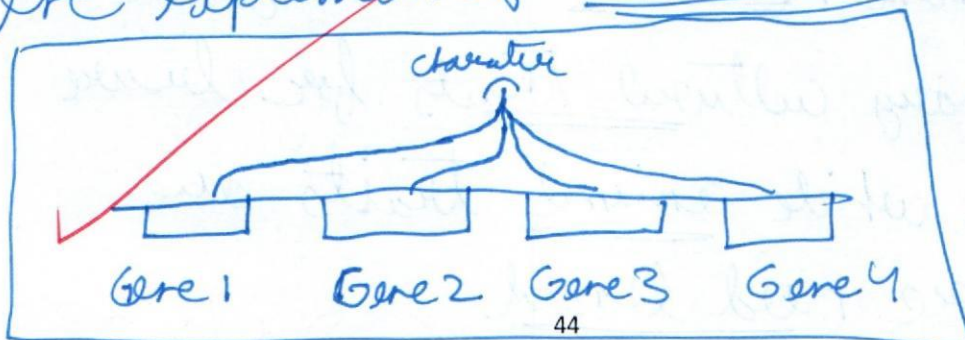
10x5=50
10

(a) Polygenetic Inheritance

Concept of Polygenetic inheritance refers to the inheritance of continuous quantitative traits that do not follow the Mendelian nature of unifactor qualitative inheritance.

Multifactor Hypothesis

R. A. Fisher theorized how multiple genes may be responsible for the expression of 1 Character.

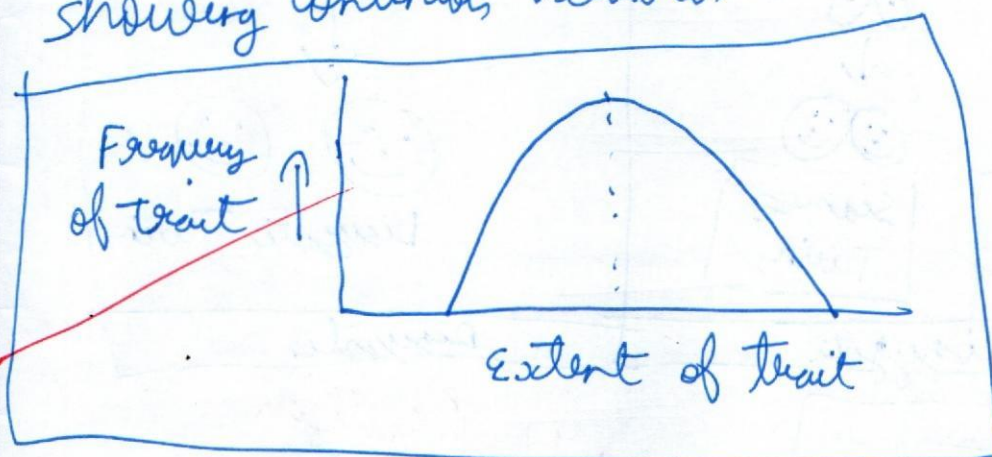


Davenport's Experiment

Davenport studied the inheritance of **L2ATM** skin colour and theorised that it is continuous non dichotomous trait that shows variation between

Black - Dark - Mulattoes - Light - White

in the ratio $1:4:6:4:1$ thus showing continuous variation



6 1/2

Thus polygenic traits show a mean distribution of characters due to continuous nature of inheritance.

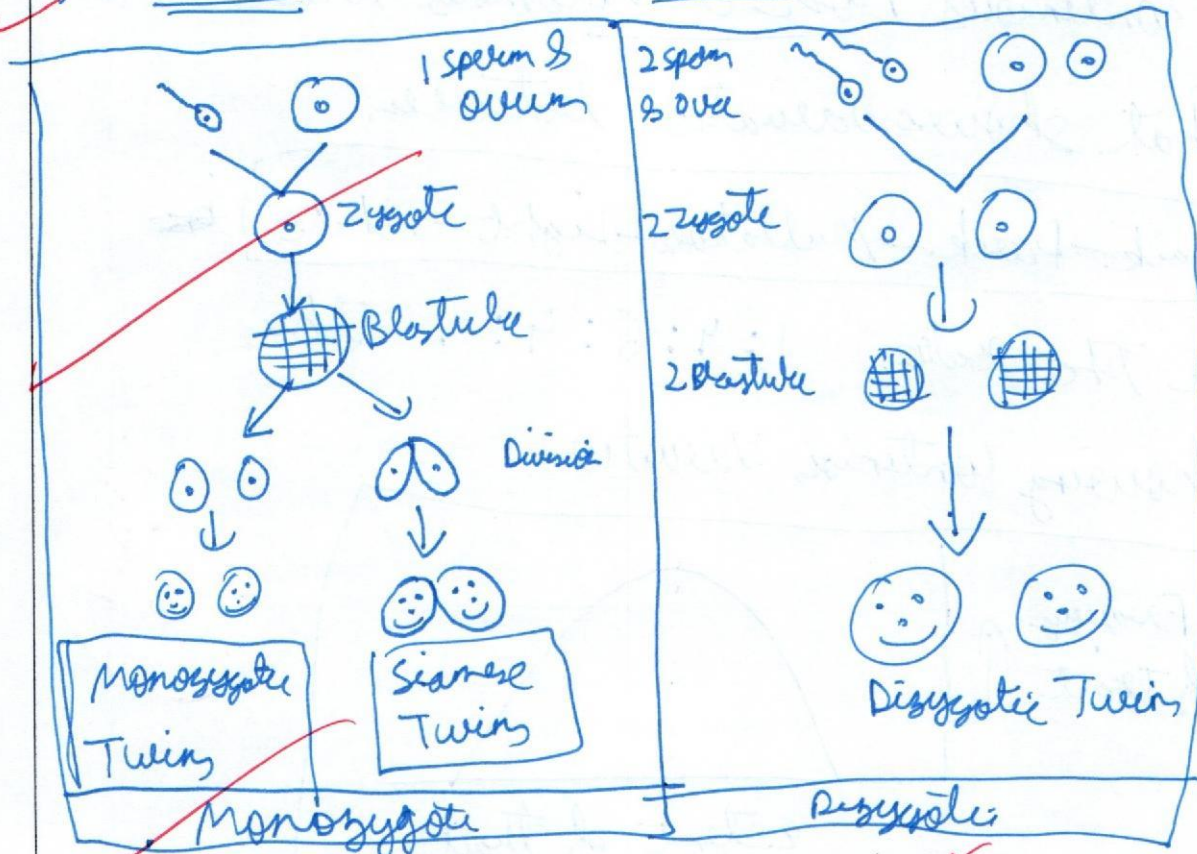
Examples like height, body structure,

skin colour etc are polygenic traits

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(b) Twin Method in Human genetics

Twin Method relies on two types of twins
& Monozygotic and Dizygotic.



Twin Study

① Concordant - Discordant

measure concordance - discordance between

monozygotic and dizygotic pairs to

get the difference to differentiate effect
of genes and environment

add Frederick
& H. Osimen
(1924)
1st systematic study

$$\frac{C_{MZ} - C_{DZ}}{100 - C_{DZ}} = \text{Extent of genetic effect of Trait} \quad \text{L2A}^{\text{TM}}$$

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$C_{MZ} \rightarrow$ Concordance in mono or dizygotic pairs
DZ

② Rearing Studies

Rear apart mono and dizygotic pairs and study variation in traits

$$\text{Variation} = \frac{\sum (\bar{x} - x)^2}{N};$$

(Var)

$$\text{Genetic effect} = \frac{\text{Var}_{DZ} - \text{Var}_{MZ}}{\text{Var}_{DZ}}$$

Cos Study: Recently NASA did a study of Co-twins by sending one to space and another on earth to see effects

6%

Co-Twin Method

Rear apart two monozygotic twins

to study effect of nature vs. nurture

Genetic Drift is also known as sewall-Weight effect and refers to the random increase in gene frequency of a particular trait without any adaptive advantage.

Characteristics of Genetic Drift

- ① Occurs in Small and Isolated Population
- ② Completely random and has no obvious advantage
- ③ May be due to inbreeding in a population.

④ Mainly due to 2 reasons

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① Mass extinction leaves small population
which builds society and thus
high genetic load and homogeneity
leading to genetic drift

② Small population migrates to new
land and builds society

①

Example

Show in Diagram
the $\text{G.D.} - \text{Nat. selection}$

① Six fingered dwarfism Balance

is common among Amish people
who inbreed

Ret. gen. selection.

H

$1-H$

② Small population in Polynesia was
found to have more than 60%
population as colour blind

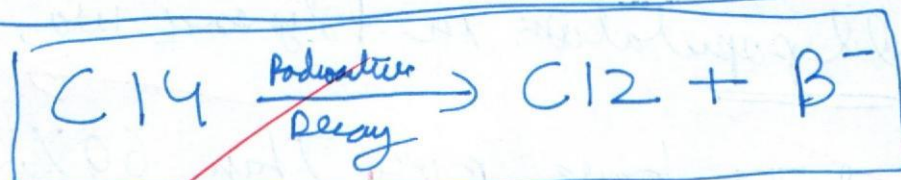
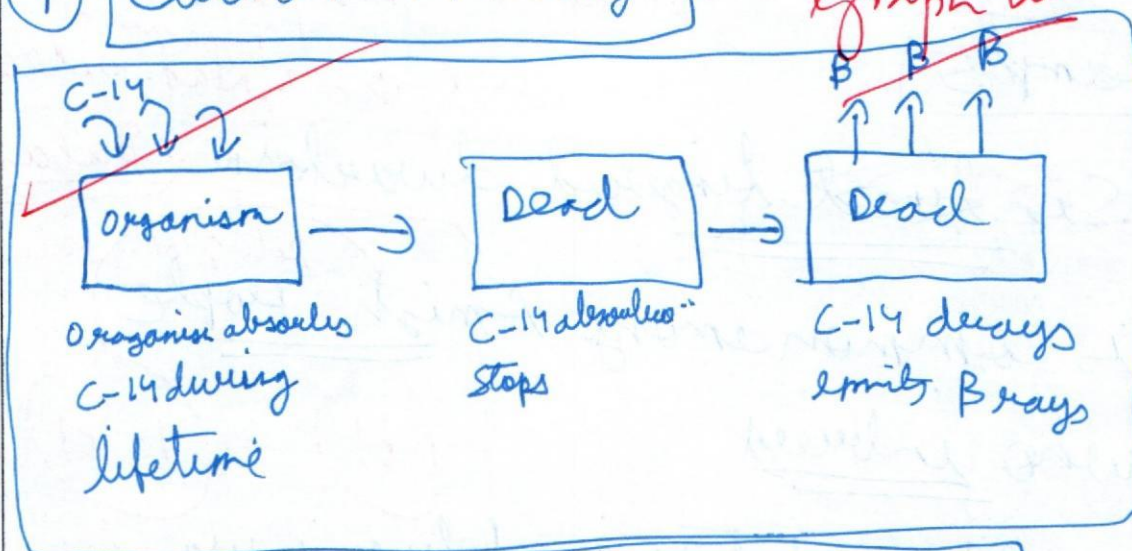
H is heterozygous.

(d) Radiometric methods of dating

~~Radiometric~~ methods of dating use the concept of radioactivity to measure the age of a specimen. They are absolute methods as they are based on concept of radioactive decay.

① Carbon-14 Dating

shown in graph too



Half life time - ~5700 years

Thus by measuring the B rate emission one can calculate the age of the organic specimen. **L2A™**

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Advantages \Rightarrow C-14 dating allows for organic fossils with a cheap method of reliable analysis

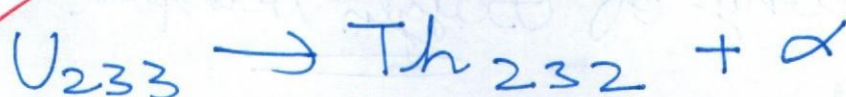
Disadvantage \Rightarrow ~~error~~ Error margin of ~ 180 years and only upto $\sim 50,000$ years limit. Variation in C-14 during history

② K-Ar Dating

Potassium is stored in Volcanic Rocks and decays into Argon with half life of 1.3 Billion years. Same principle as C-14



③ Uranium-Thorium dating



(c) Sickle-Cell Anemia

Sickle Cell Anemia is a disease of the ~~the~~ Single Nucleotide Polymorphism of the β Chain of Hemoglobin where the 6th Amino Acid is Valine and not Glutamic acid.



Hemoglobin is a polynuclear protein of 2 α and 2 β chains



Mutation of 6th a.a of β chain causes Sickle Cell Anemia

Effects

- ① Lower capacity of Blood Oxygen carrying thus leading to reduced efficiency of Oxygen Transport and energy

② Poor growth and development

③ Pale skin and easily tired

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Heterozygote Advantage

Sickle Cell anemia is a recessive
trait and thus only shows full
effect in case of Homozygous HbS
gene.

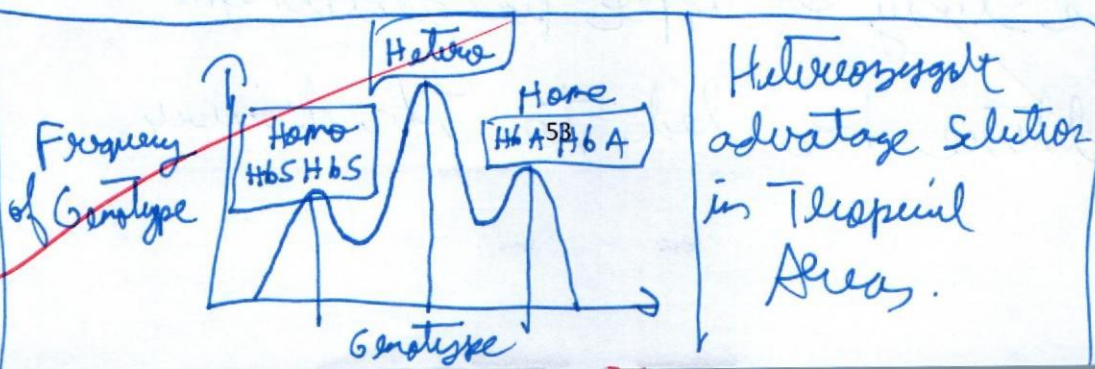
6 1/2

Thus Heterozygotes do not suffer the
ill effects of the disease and have

added advantage of Malaria

good

Resistance which leads to increased
natural selection in Tropical areas



Q6. (a) Discuss the various aspects of Upper Paleolithic people

20

Upper Paleolithic period is characterized by the emergence of Homo Sapiens and is from ~40,000 years - 10,000 years ago and represents significant changes in material and societal culture.

Distribution

Cro-Magnon, Eyzies, etc.

During the Plistocene due to glaciation the Homo Sapiens had migrated to all parts of the World including Australia.

Tool Culture

The study of upper paleolithic culture has led to the discovery

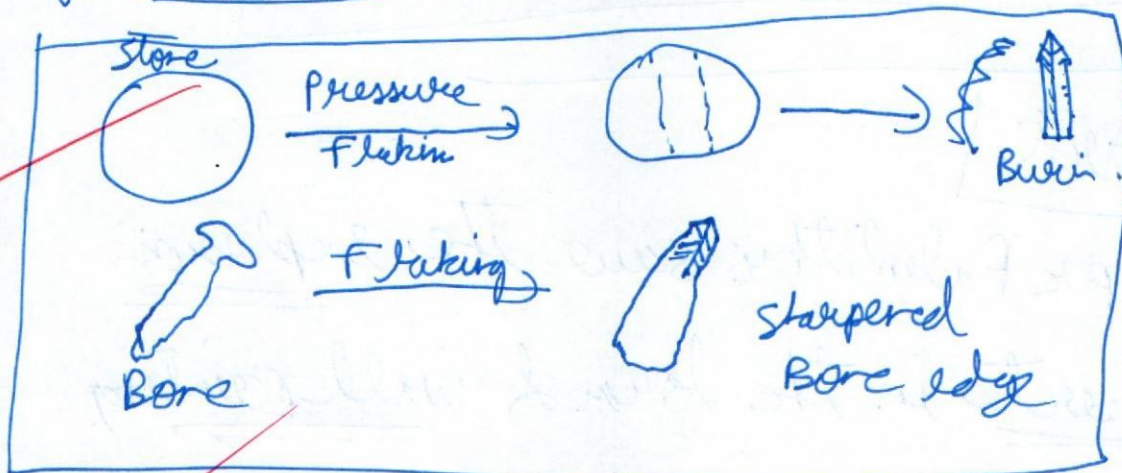
of use of Non lithic tools for
~~the first time~~ such as bone,
ivory etc along with continuation
of old Hand axes, choppers etc along
with flaking and Clactonian tools.

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① Aurignacian Culture

Same the major Tools of the period
of both lithic and non lithic nature



② Magdalenian Culture

Same increased use of non lithic
tools for the purpose of art

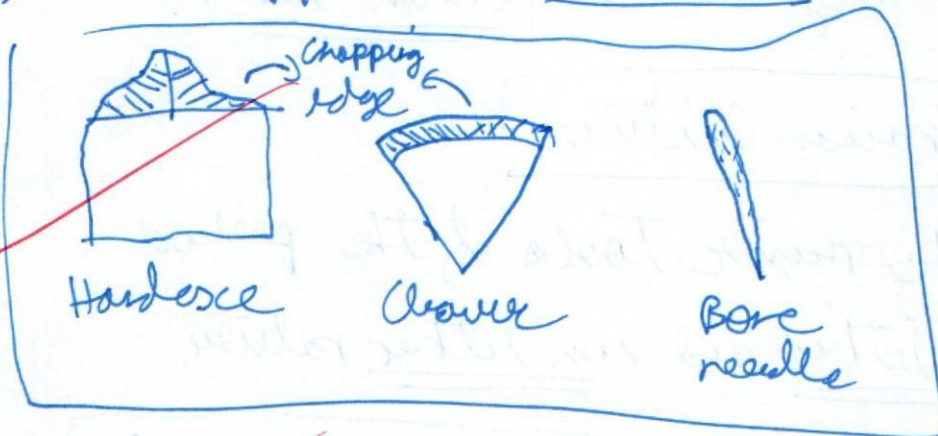
such as bone toys, bone tools etc

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③ ~~Solut~~ Solutrean Culture

This area saw the first use of needles along with handaxes and cleavers thus indicating possible use of clothes



~~Art~~

Upper Paleolithic saw the explosion of art in the form of wall paintings in caves. Themes included hunting activities, dancing etc.

Use of local dyes ⁵⁶ made from crushing haematite etc and using animal brush

are main features.

Cultural Evolution

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① Burials → Clear evidence of Burials from France, Iran etc indicate use of religion as grave tools are found

attempted well

② Cave living → Cave living was the norm due to Tool technology which required raw material

③ Cults - Image of Half man - Half animal in caves of France indicate cult worship

④ Toys and Home Art - Use of Ivory was very popular for Bangles, toys, carts, art etc and thus use of non lithic tools was expanded to other areas than hunting

12 1/2

(b) Discuss main factors affecting gene frequencies among the human populations

Gene Frequency refers to the genetic frequency of alleles in a population

~~Factor~~

Factors affecting gene frequency

Systematic

Dispersive

Mutation

Migration

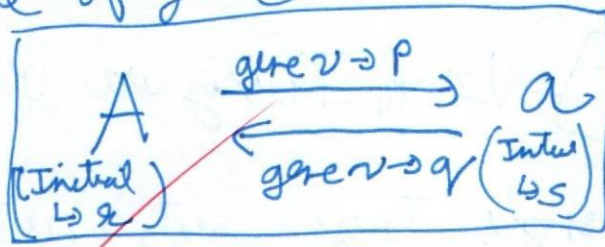
Selection

Genetic Drift

Inbreeding

① Mutation

Allele of gene change from



Frequency of forward and backward mutation is parallel

② Variation $\rightarrow \Delta p = q - p$ at Hardy Weinberg equilibrium $\Delta p = 0$

$$q - p = 0 \therefore q = p = \frac{p(1-p)}{q}$$

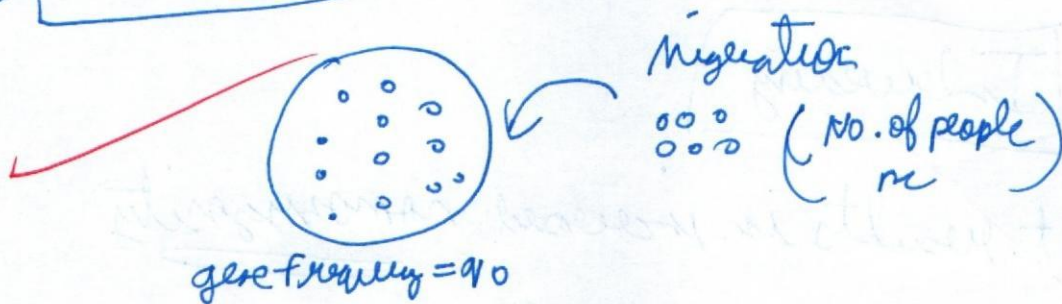
$$\therefore \left[r = \frac{p}{p+q} ; s = \frac{q}{p+q} \right]$$

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Thus final gene frequency only depends on
rate of mutation

② Migration



Change in gene frequency $\Rightarrow \Delta q = q_0 - q_0(1-m)$

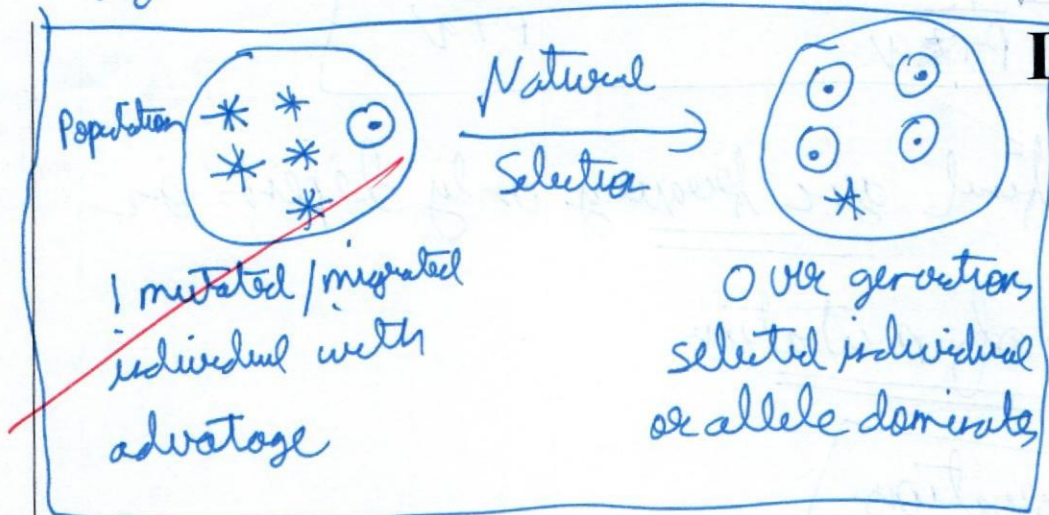
$$\therefore \Delta q = q_0 m$$

\therefore It depends on number of immigrating
migrants along with initial gene
frequency of allele

③ Selection

Selection is environment dependent
and acts on variation caused

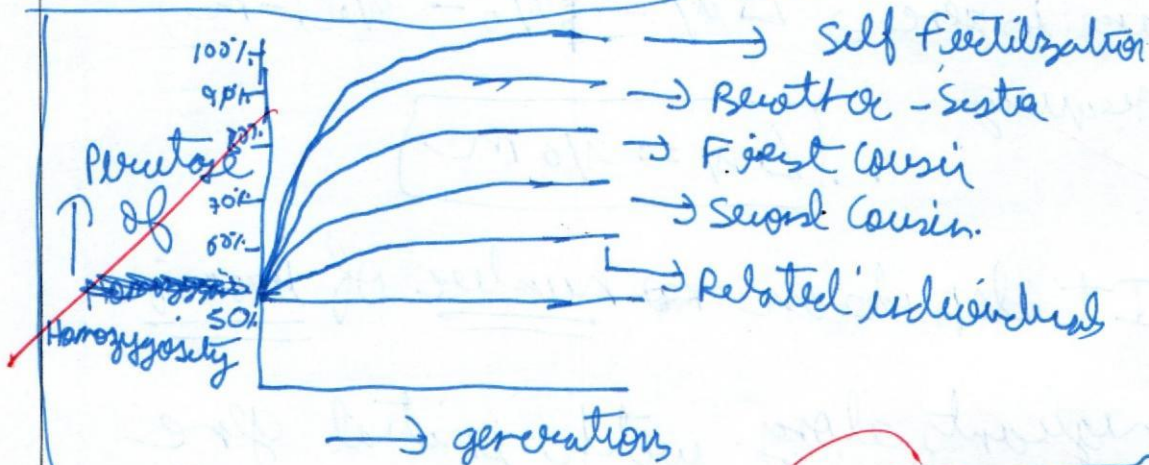
by migration or mutation



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④ Inbreeding

It results in increased homozygosity
and thus incidence of disease



⑤ Genetic Drift

Random increase of gene frequency due
to small population

eg 6 fingered dwarfism → Amish

→ General conclusion

12# 8 1/2

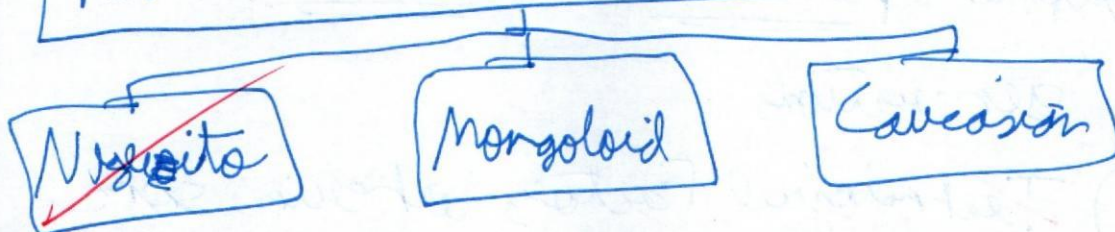
(c) What is 'race'? Enumerate and discuss the factors responsible for the formation of Races.

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Race is defined by Dobzhansky as a group of people or individuals with exchange of gene frequency with other populations is negligible or so slow that genetic identity is not swamped or diminished.

Thus Race is a concept of multiple defining physiological and physical characters that define a subpopulation of Homo Sapiens.

Hooton's Classification of Races of the World



Formation of Races

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Environmental Factors

① Long term response to heat, cold, seen etc leads to changes eg
Gloger's rule of skin colour (Dark in
hot areas, white in cold), Allen's Rule
and Bergman's Rule

② Long term response to particular type
of diet leads to changed microfauna
leading to physiological ~~and~~ distinction.

③ Isolation leads to reduced
intermixing of races thus different
directions of evolution and thus
different parameters of selection over
generations

④ Technological Factors wherein some
races develop due to development

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of new technology are better adapted to natural issues eg. Invention

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of rice farming led to increased ~~the~~
number of mosquitoes which led to
heterozygous advantage among regions

of Asia and Africa of Sickle Cell gene

Need to clearly
show.

Mutation
by drift
Recombination
Bottleneck
Migration
etc

according to
Ashley
Montagu.

- Q7. (a) Discuss the concept of 'Mendelian population' and its application in study of anthropo-genetic variation in India 15