Test Booklet No. _____

This booklet consists of 100 questions and __ printed pages.

RGUCET/2025/63

Series A

RGUCET 2025
Common Entrance Test, 2025
POST GRADUATE DIPLOMA IN FORENSIC SCIENCES

Full Marks: 100 **Time: 2 Hours**

Roll No. | | | | | | | | |

Day and Date of Examination: _____

Signature of Invigilator(s) _____

Signature of Candidate _____

General Instructions:

PLEASE READ ALL THE INSTRUCTIONS CAREFULLY BEFORE MAKING ANY ENTRY.

1. DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO.
2. Candidate must write his/her Roll Number on the space provided.
3. This Test Booklet contains 100 Multiple Choice Questions (MCQs) from the concerned subject. Each question carries 1 mark. There shall be negative marking of 0.25 against each wrong attempt.
4. Please check the Test Booklet to verify that the total pages and total number of questions contained in the test booklet are the same as those printed on the top of the first page. Also check whether the questions are in sequential order or not.
5. Candidates are not permitted to enter into the examination hall after the commencement of the entrance test or leave the examination hall before completion of Examination.
6. Making any identification mark in the OMR Answer Sheet or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.
7. Candidates shall maintain silence inside and outside the examination hall. If candidates are found violating the instructions mentioned herein or announced in the examination hall, they will be summarily disqualified from the entrance test.
8. In case of any dispute, the decision of the Entrance Test Committee shall be final and binding.
9. The OMR Answer Sheet consists of two copies, the Original copy and the Student's copy

<table>
<tr><td>1</td><td colspan="4">Which country hosted COP28, the UN Climate Conference?</td><td>UAE</td></tr>
<tr><td></td><td>a) India</td><td>b) UAE</td><td>c) France</td><td>d) Brazil</td><td>b)</td></tr>
<tr><td>2</td><td colspan="4">Which country recently abolished the death penalty in January 2025?</td><td>Zimbabwe</td></tr>
<tr><td></td><td>a) Australia</td><td>b) Japan</td><td>c) Mexico</td><td>d) Zimbabwe</td><td>d)</td></tr>
<tr><td>3</td><td colspan="4">Assertion (A): The ICC men’s Cricket World Cup 2023 was won by India.

Reason (R): India defeated England in the final match.</td><td>Both A and R are false</td></tr>
<tr><td></td><td>a) Both A and R are true, and R is the correct explanation of A</td><td>b) Both A and R are true, but R is not the correct explanation of A</td><td>c) A is true, but R is false</td><td>d) Both A and R are false</td><td>d)</td></tr>
<tr><td>4</td><td colspan="4">Assertion (A): ISRO launched Aditya-L1 to study the sun.
Reason (R): Aditya-L1 is positioned at Lagrange Point 1 to continuously observe solar activity.</td><td>Both A and R are true, and R is the correct explanation of A</td></tr>
<tr><td></td><td>a) Both A and R are true, and R is the correct explanation of A</td><td>b) Both A and R are true, but R is not the correct explanation of A</td><td>c) A is true, but R is false</td><td>d) A is false, but R is true</td><td>a)</td></tr>
<tr><td>5</td><td colspan="4">Match the following:

<table><tr><td>A. International Women’s Day</td><td>i. 1st December</td></tr><tr><td>B. International Labour Day</td><td>ii. 8th March</td></tr><tr><td>C. World environment Day</td><td>iii. 1st May</td></tr><tr><td>D. World AIDS Day</td><td>iv. 5th June</td></tr></table></td><td>A-ii, B-iii, C-iv, D-i</td></tr>
<tr><td></td><td>a) A-iv, B-i, C-iii, D-ii</td><td>b) A-ii, B-iii, C-iv, D-i</td><td>c) A-i, B-ii, C-iii, D-iv</td><td>d) A-ii, B-i, C-iii, D-iv</td><td>b)</td></tr>
<tr><td>6</td><td colspan="4">What is the theme for World Immunization Week, 2025?</td><td>Immunization for All in Humanly Possible</td></tr>
<tr><td></td><td>a) Immunization for All in Humanly Possible</td><td>b) The Big Catch-up</td><td>c) Long life for all</td><td>d) Vaccines bring us closer</td><td>a)</td></tr>
</table>

7	If 25% of X is 30, then X is				120
	a) 90	b) 100	c) 110	d) 120	d)
8	A car covers a distance in 5 hours at a speed of 60 km/h. How much distance will it cover in 3 hours at the same speed?				180 km
	a) 100 km	b) 120 km	c) 180 km	d) 200 km	c)
9	Assertion (A): All squares are rectangles. Reason (R): A rectangle has opposite sides equal and all angles 90^0, and a square satisfies these properties.				Both A and R are true, and R is the correct explanation of A
	a) Both A and R are true, and R is the correct explanation of A	b) Both A and R are true, but R is not the correct explanation of A	c) A is true, but R is false	d) Both A and R are false	a)
10	A boy walks 10 meters north, then turns right and walks 15 meters. He turns right again and walks 10 meters. In which direction is he now from his starting point?				East
	a) North	b) South	c) East	d) West	c)
11	Match the quantities with their units: A. Interest – i. Year B. Time – ii. Rupees C. Rate of interest – iii. Man-days D. Work – iv. Percent per annum				A-ii, B-i, C-iv, D-iii
	a) A-iv, B-i, C-iii, D-ii	b) A-ii, B-i, C-iv, D-iii	c) A-i, B-ii, C-iii, D-iv	d) A-ii, B-i, C-iii, D-iv	b)
12	What is the angle between the hands of a clock at 3:00?				90^0
	a) 45^0	b) 60^0	c) 75^0	d) 90^0	d)
13	**Which tool is commonly used in craniometry?**				**Calipers**
	a) **Calipers**	b) Stethoscope	c) Microscope	d) Sphygmomanometer	a)
14	**The tailbone in human vertebral column is also known as the:**				Coccyx
	a) Atlas	b) Axis	c)Sacrum	d) Coccyx	d)
15	**Which of the following statement(s) are True?**				Only I is True

	I. DNA analysis is always a part of forensic anthropology II. Forensic anthropologists can estimate age, sex, ancestry, and stature from bones. III. Skeletal remains cannot reveal evidence of trauma. IV. Forensic anthropologists only work with complete skeletons.				
	a) All are False	b) Fall are True	c) Only I is True	d) Except I all are True	c)
16	**Assertion (A):** The cephalic index helps in determining the racial affinity of a skull. **Reason (R):** The cephalic index is the ratio of cranial breadth to cranial length multiplied by 100.				Both A and R are true, and R is the correct explanation of A
	a) Both A and R are true, and R is the correct explanation of A	b) Both A and R are true, but R is not the correct explanation of A	c) A is true, but R is false	d) A is false, but R is true	a)
17	Match bones to their categories: A. Femur – i. Flat bone B. Sternum – ii. Long bone C. Vertebra – iii Short bone D. Carpals – iv Irregular bone				A-ii, B-i, C-iv, D-iii
	a) A-i, B-ii, C-iii, D-iv	b) A-i, B-ii, C-iii, D-iv	c) A-iii, B-iv, C-ii, D-i	d) A-ii, B-i, C-iv, D-iii	d)
18	**Craniometry helps forensic scientists primarily to:**				**Identify sex and ancestry**
	a) Estimate age	b) Determine cause of death	c) **Identify sex and ancestry**	d) Measure brain size	c)
19	**Which statement among the following is False?** I. Craniometric points like bregma, nasion, and glabella are anatomical landmarks. II. Brachycephalic skulls are broad and short. III. Craniometry is the measurement of the skull and its features. IV. The cephalic index is used in determining sex, not ancestry.				Only IV is False
	a) Only I is False	b) Only II is False	c) Only IV is False	d) All are False	c)
20	**How many vertebrae are typically present in the adult human vertebral column?**				33
	a) 22	b) 33	c) 44	d) 55	b)

21	Match the craniometric landmarks with their anatomical location: A. Nasion – i. Lowest point on the chin B. Bregma – ii. Intersection of sagittal and lambdoid sutures C. Lambda – iii. Intersection of nasal and frontal bones D. Gnathion – iv. Junction of coronal and sagittal sutures				A-iii, B-iv, C-ii, D-i
	a) A-iii, B-iv, C-i, D-ii	b) A-iii, B-iv, C-ii, D-i	c) A-ii, B-i, C-iii, D-iv	d) A-i, B-ii, C-iv, D-iii	b)
22	**What does the term "cephalic index" help to determine?**				**Shape of the skull**
	a) Age of the skull	b) Size of the brain	c) Thickness of the skull	d) **Shape of the skull**	d)
23	**Which bone is the longest in the human body?**				Femur
	a) Femur	b) Tibia	c) Fibula	d) Back bone	a)
24	**The study of bones in anthropology and forensic science is called?**				Osteology
	a) Bono-logy	b) Craniology	c) Osteology	d) Osteology	c)
25	**Which statement(s) are True?** I. Osteology is the study of bones. II. The human skeleton has 206 bones in the adult form. III. The mandible is the only movable bone of the skull. IV. The Femur is the longest bone in the body.				All are True
	a) I & IV are True	b) II & III are True	c) III & IV are True	d) All are True	d)
26	**Assertion (A):** Male bones are generally heavier and more robust than female bones. **Reason (R):** This is because males have higher estrogen levels which promote bone density.				A is true, but R is false
	a) Both A and R are true, and R is the correct explanation of A	b) Both A and R are true, but R is not the correct explanation of A	c) A is true, but R is false	d) A is false, but R is true	c)
27	Match the somatometric measurements with their definitions: A. Stature – i. Glabella to opisthocranion B. Sitting height – ii. Fingertip to fingertip C. Arm span – iii. Distance from vertex to floor D. Head length – iv. Vertex to sitting surface				A-iii, B-iv, C-ii, D-i
	a) A-i, B-iii, C-iv, D-i	b) A-iv, B-iii, C-ii, D-i	c) A-iii, B-iv, C-ii, D-i	d) A-i, B-iii, C-ii, D-iv	c)
28	**The process by which bones are formed is called?**				Ossification
	a) Ossification	b) Calcification	c) Petrification	d) Calcitonin	a)

29	**Which of the following statement(s) are True?** I. Osteometry involves the measurement of bones for analysis. II. The length of long bones can help estimate stature. III. Femoral head diameter can help determine sex. IV. Regression equations are used in osteometry for stature estimation.				All are True
	a) All are False	b) All are True	c) Only I is True	d) Only I is False	b)
30	**The cranial index is calculated as:**				(Maximum cranial breadth / Maximum cranial length) × 100
	a) (Maximum cranial length / Maximum cranial breadth) × 100customs	b) (Cranial length / Cranial height) × 100	c) (Maximum cranial breadth / Maximum cranial length) × 100	d) (Cranial height / Cranial breadth) × 100	c)
31	**Match the fingerprint pattern with its description:** A. Whorl — i. Ridges enter, loop, and exit same side B. Loop — ii. Ridges flow from one side to another without looping C. Arch — iii. Circular or spiral ridge pattern D. Composite — iv. Combination of two or more patterns				A-iii, B-i, C-ii, D-iv
	a) A-iii, B-ii, C-iv, D-i	b) A-ii, B-iii, C-i, D-iv	c) A-iii, B-i, C-ii, D-iv	d) A-iii, B-iv, C-i, D-ii	c)
32	**Which bone protects the brain?**				Cranium
	a) Femur	b) Cranium	c) Tibia	d) Clavicle	b)
33	**Which bone is also called the kneecap?**				Patella
	a) Fibula	b) Tibia	c) Patella	d) Femur	c)
34	**Identify the False Statement:** I. Somatometry refers to measurements taken on the living human body. II. Head length and head breadth are somatometric measurements. III. Somatometry has no role in forensic identification. IV. Somatometry is limited to only cranial measurements.				III & IV are False
	a) I & II are False	b) III & IV are False	c) Only III is False	d) Only IV is False	b)
35	**Assertion (A):** The maximum length of the femur is useful in estimating the age of a person. **Reason (R):** Long bone length correlates better with stature than age.				A is false, but R is true
	a) Both A and R are true, and R is the correct	b) Both A and R are true, but R is	c) A is true, but R is false	d) A is false, but R is true	d)

	explanation of A	not the correct explanation of A			
36	**Match the skeletal part with its primary use in forensic analysis:** A. Pelvis — i. Age estimation B. Skull — ii. Ancestry estimation C. Long bones — iii. Sex estimation D. Teeth — iv. Stature estimation				A-iii, B-ii, C-iv, D-i
	a) A-iii, B-iv, C-ii, D-i	b) A-ii, B-iv, C-iii, D-ii	c) A-i, B-ii, C-iii, D-iv	d) A-iii, B-ii, C-iv, D-i	d)
37	**Which is the strongest bone in human body?**				Mandible
	a) Femur	b) Tibia	c) Mandible	d) Skull	c)
38	**How many bones make up the adult human skull?**				22
	a) 22	b) 33	c) 28	d) 07	a)
39	**Which of the following statement is True?** I. Bone fusion timing helps in estimating age in sub-adults. II. Mastoid process size is typically larger in males. III. Non-metric traits in bones can also support ancestry estimation. IV. Height estimation using long bones is more accurate when sex and ancestry are known.				a) All are True
	a) Only IV is True	b) Only I is True	c) II & III are True	d) All are True	d)
40	**Which landmark is located at the most prominent point of the forehead between the eyebrows?**				**Glabella**
	a) Bregma	b) Nasion	c) **Glabella**	d) Opisthocranion	c)
41	Hominin Species and Key Features A. Australopithecus afarensis — i. Known as 'Lucy' B. Homo habilis — ii. First tool maker C. Homo erectus — iii. First to use fire D. Homo neandarthalensis — iv. Associated with Mousterian tools				A-i, B-ii, C-iii, D-iv
	a) A-i, B-ii, C-iii, D-iv	b) A-iii, B-ii, C-i, D-iv	c) A-iii, B-i, C-iv, D-ii	d) A-i, B-iv, C-iii, D-ii	a)
42	**What is the landmark found at the back of the skull, most posterior point?**				**Opisthocranion**
	a) Bregma	b) Inion	c) **Opisthocranion**	d) Nuchale	c)
43	**What is Somatometry?**				Human body measurements
	a) Fossils	b) Bones only	c) Human body measurements	d) DNA	c)

44	**The elbow joint is formed by the humerus, radius, and ……**				Ulna
	a) Clavicle	b) Starnum	c) Radius	d) Ulna	d)
45	**Which of the following statement(s) are True?** I. Biological anthropology is also known as physical anthropology. II. Biological anthropology only focuses on modern human societies. III. Primatology, a subfield of biological anthropology, studies non-human primates. IV. Biological anthropologists do not study genetics.				I & III are True
	a) I & II are True	b) II & IV are True	c) I & III are True	d) II & III are True	c)
46	**Assertion (A):** Craniometry is used to determine the identity of decomposed bodies. **Reason (R):** Craniometry involves the measurement of cranial features for identification and classification.				Both A and R are true, and R is the correct explanation of A
	a) Both A and R are true, and R is the correct explanation of A	b) Both A and R are true, but R is not the correct explanation of A	c) A is true, but R is false	d) A is false, but R is true	a)
47	Match the osteometric tools with their uses: A. Spreading caliper – i. Measuring angles B. Sliding Caliper – ii. Measuring long bones C. Osteometric board – iii. Measuring bone diameters D. Goniometer – iv. Measuring cranial breadth				A-iv, B-iii, C-ii, D-i
	a) A-i, B-ii, C-iii, D-iv	b) A-iv, B-iii, C-ii, D-i	c) A-iii, B-iv, C-ii, D-i	d) A-iv, B-iii, C-i, D-ii	b)
48	**Which instrument is primarily used for measuring stature?**				**Anthropometer**
	a) Osteometric board	b) Vernier caliper	c) **Anthropometer**	d) Goniometer	c)
49	**The term "mesocephalic" refers to:**				Medium-headed
	a) Very short-headed	b) Very long-headed	c) Narrow-headed	d) Medium-headed	d)
50	**Identify the False statement?** I. Anthropometry is helpful in assessing nutritional status in children. II. Somatometry is a branch of anthropometry that deals with living human body measurements. III. Anthropometry has applications in ergonomics and product design IV. Anthropometry refers to the measurement of the human body.				No False Statemetn

<table>
<tr><td></td><td>a) II is False</td><td>b) II & IV are False</td><td>c) IV is False</td><td>d) No False Statemetn</td><td>d)</td></tr>
<tr><td>51</td><td colspan="4">Assertion (A): Osteology includes the study of teeth for forensic identification.
Reason (R): Teeth are part of the skeletal system and often survive postmortem degradation.</td><td>Both A and R are true, and R is the correct explanation of A</td></tr>
<tr><td></td><td>a) Both A and R are true, and R is the correct explanation of A</td><td>b) Both A and R are true, but R is not the correct explanation of A</td><td>c) A is true, but R is false</td><td>d) A is false, but R is true</td><td>a)</td></tr>
<tr><td>52</td><td colspan="4">Match cranial indices with the respective head shape:
<table><tr><td>A. Dolichocephalic</td><td>i. Long Head</td></tr><tr><td>B. Mesocephalic</td><td>ii. Medium-head</td></tr><tr><td>C. Brachycephalic</td><td>iii. Short Head</td></tr><tr><td>D. Hyperbrachycephalic</td><td>iv. Very short-head</td></tr></table></td><td>a) A-i, B-ii, C-iii, D-iv</td></tr>
<tr><td></td><td>a) A-i, B-ii, C-iii, D-iv</td><td>b) A-i, B-ii, C-iii, D-iv</td><td>c) A-iii, B-iv, C-ii, D-i</td><td>d) A-iv, B-iii, C-i, D-ii</td><td>(a)</td></tr>
<tr><td>53</td><td colspan="4">The growth pattern of hair is influenced by:</td><td>Genetics and hormones</td></tr>
<tr><td></td><td>a) Climate only</td><td>b) Water intake</td><td>c) Genetics and hormones</td><td>d) Blood type</td><td>c)</td></tr>
<tr><td>54</td><td colspan="4">Which hair type is least likely to contain nuclear DNA?</td><td>Hair shaft without root</td></tr>
<tr><td></td><td>a) Anagen root hair</td><td>b) Telogen root hair</td><td>c) Beard hair</td><td>d) Hair shaft without root</td><td>d)</td></tr>
<tr><td>55</td><td colspan="4">Identify the False statement(s):
I. Mitosis results in two genetically identical daughter cells.
II. Mitosis occurs in gametes.
III. Metaphase is the stage where chromosomes align at the equator.
IV. Anaphase involves the separation of sister chromatids.</td><td>II is False</td></tr>
<tr><td></td><td>a) I is False</td><td>b) II is False</td><td>c) III & IV is False</td><td>d) All are False</td><td>b)</td></tr>
<tr><td>56</td><td colspan="4">Assertion (A): Somatometry is primarily concerned with the measurement of bones.
Reason (R): Somatometry includes measuring the living body and soft tissues.</td><td>A is false, but R is true</td></tr>
<tr><td></td><td>a) Both A and R are true, and R is the correct explanation of A</td><td>b) Both A and R are true, but R is not the correct explanation of A</td><td>c) A is true, but R is false</td><td>d) A is false, but R is true</td><td>d)</td></tr>
</table>

57	Match bones to their locations: A. Humerus — i. Shoulder girdle B. Tibia — ii. Lower leg C. Clavicle — iii. Forearm D. Ulna — iv. Upper arm				A-iv, B-ii, C-i, D-iii
	a) A-i, B-ii, C-iii, D-iv	b) A-i, B-ii, C-iii, D-iv	c) A-iii, B-iv, C-ii, D-i	d) A-iv, B-ii, C-i, D-iii	d)
58	**The fold of skin covering the inner corner of the eye is called:**				Epicanthic fold
	a) Supraorbital ridge	b) Tarsal fold	c) Palpebral fold	d) Epicanthic fold	d)
59	**Melanin is primarily responsible for:**				Pigmentation of skin, hair, and eyes
	a) Pigmentation of skin, hair, and eyes	b) Body temperature regulation	c) Blood type	d) Bone density	a)
60	**Which of the following statement(s) are True?** I. Cell division is necessary for growth, repair, and reproduction. II. All cells in the body divide at the same rate. III. Prokaryotic cells divide through mitosis. IV. Cytokinesis is the process of nuclear division.				I is True
	a) I is True	b) II is True	c) III is True	d) IV is True	a)
61	**Assertion (A):** The nasal index is useful in racial classification. **Reason (R):** The nasal index is the ratio of nasal breadth to nasal height.				Both A and R are true, and R is the correct explanation of A
	a) Both A and R are true, and R is the correct explanation of A	b) Both A and R are true, but R is not the correct explanation of A	c) A is true, but R is false	d) A is false, but R is true	a)
62	**Match sutures with cranial bones they connect:** A. **Coronal suture** — i. Frontal and parietal B. **Sagittal suture** — ii. Between parietals C. **Lambdoid suture** — iii. Parietal and occipital D. **Squamosal suture** — iv. Temporal and parietal				A-i, B-ii, C-iii, D-iv
	a) A-i, B-ii, C-iii, D-iv	b) A-i, B-ii, C-iii, D-iv	c) A-iii, B-iv, C-ii, D-i	d) A-iv, B-iii, C-i, D-ii	a)
63	**Who is the author of** *The Interpretation of Cultures***?**				Geertz

<table>
<tr><td></td><td>a) Malinowski</td><td>b) Boas</td><td>c) Redfield</td><td>d) Geertz</td><td>d)</td></tr>
<tr><td>64</td><td colspan="4">Which anthropologist is known for the concept of "culture and personality" ?</td><td>Ruth Benedict</td></tr>
<tr><td></td><td>a) Leela Dubey</td><td>b) S. C. Dubey</td><td>c) Margaret Mead</td><td>d) Ruth Benedict</td><td>d)</td></tr>
<tr><td>65</td><td colspan="4">Which of the following statements are true about the scope of social anthropology?

i. It studies kinship, marriage, and family structures
ii. It includes the study of economic and political institutions
iii. It relies heavily on ethnographic fieldwork
iv. It examines social change and continuity</td><td>All are True</td></tr>
<tr><td></td><td>a) ii & iv are True</td><td>b) ii & iv are False</td><td>c) All are True</td><td>d) All are False</td><td>c)</td></tr>
<tr><td>66</td><td colspan="4">Assertion (A): Kinship studies are central to social anthropology.
Reason (R): Kinship has no relevance in modern complex societies.</td><td>A is true, but R is false</td></tr>
<tr><td></td><td>a) Both A and R are true, and R is the correct explanation of A.</td><td>b) Both A and R are true, but R is not the correct explanation of A.</td><td>c) A is true, but R is false.</td><td>d) A is false, but R is true</td><td>c)</td></tr>
<tr><td>67</td><td colspan="4">Match the Anthropologists with their Study Areas:

<table><tr><td>A. Verrier Elwin</td><td>i Sacred complex at Gaya</td></tr><tr><td>B. N. K. Bose</td><td>ii Social structure of Indian tribes</td></tr><tr><td>C. D. N. Majumdar</td><td>iii Cultural unity in India</td></tr><tr><td>D. L. P. vidyarthi</td><td>iv Gonds</td></tr></table></td><td>A-iv, B-iii, C-ii, D-i</td></tr>
<tr><td></td><td>a) A-i, B-ii, C-iii, D-iv</td><td>b) A-i, B-ii, C-iii, D-iv</td><td>c) A-iv, B-iii, C-ii, D-i</td><td>d) A-iv, B-iii, C-i, D-ii</td><td>c)</td></tr>
<tr><td>68</td><td colspan="4">The concept of Sanskritization was given by?</td><td>M. N. Srinivas</td></tr>
<tr><td></td><td>a) L. M. Srinivas</td><td>b) N. M. Srinivas</td><td>a) L. M. Srinivas</td><td>b) N. M. Srinivas</td><td>a) L. M. Srinivas</td></tr>
<tr><td>69</td><td colspan="4">“Sacred complex at Gaya” is attributed to which of the following Anthropologist of India?</td><td>L. P. Vidyarthi</td></tr>
<tr><td></td><td>a) E. B. Tylor</td><td>b) Robert Redfield</td><td></td><td>a) E. B. Tylor</td><td>b) Robert Redfield</td></tr>
<tr><td>70</td><td colspan="4">Identify the incorrect ideas about religion in social anthropology:

i. Religion is studied only to prove divine truths
ii. Anthropologists reject symbolic aspects of rituals
iii. Religion is irrelevant in understanding social behavior
iv. Anthropologists do not study myth or belief systems</td><td>b) All are False</td></tr>
<tr><td></td><td>a)All are True</td><td>b) All are False</td><td>c) i & ii are Ture</td><td>d) ii & iv are True</td><td>b)</td></tr>
</table>

71	**Assertion (A):** Participant observation is a key method in social anthropology. **Reason (R):** It allows anthropologists to understand emic (insider) perspectives of a culture.				Both A and R are true, and R is the correct explanation of A
	a) Both A and R are true, and R is the correct explanation of A	b) Both A and R are true, but R is not the correct explanation of A	c) A is true, but R is false	d) A is false, but R is true	(a)
72	**Match the Tribes with their Locations:** A. Toda – i Meghalaya B. Santhal – ii Tamil Nadu C. Bhil – iii Jharkhand D. Garo – iv Rajasthan				A-ii, B-iii, C-iv, D-i
	a) A-iii, B-iv, C-ii, D-i	b) A-ii, B-iii, C-iv, D-i	c) A-ii, B-iv, C-iii, D-i	d) A-i, B-ii, C-iv, D-iii	c)
73	The shape of the DNA looks like:				Helical
	a) Straight	b) Helical	c) Circular	d) Branched	b)
74	Who is known as the father of genetics?				Gregor Mendel
	a) Charles Darwin	b) Gregor Mendel	c) Watson and Crick	d) Robert Hooke	b)
75	Who give the structure of DNA?				Watson and Crick
	a) Charles Darwin	b) Gregor Mendel	c) Watson and Crick	d) Robert Hooke	c)
76	Assertion (A): Genes are located on chromosomes. Reason (R): Chromosomes are made up of DNA and protein.				Both A and R are true, and R is the correct explanation of A.
	a) Both A and R are true, and R is the correct explanation of A.	b) Both A and R are true, but R is not the correct explanation of A.	c) A is true, but R is false.	d) A is false, but R is true.	a)
77	Match the following terms with their definitions: A. Allele – i. Observable physical trait B. Chromosome – ii. Specific genetic makeup C. Genotype – iii. Alternative form of a gene D. Phenotype – iv. Carries genes in the nucleus				A-iii; B-iv; C-ii; D-i

	a) A-iii; B-iv; C-ii; D-i	b) A-iv; B-i; C-iii; D-ii	c) A-ii; B-iii; C-i; D-iv	d) A-ii; B-i; C-iii; D-iv	d)
78	The process by which traits are passed from parents to offspring is called?				Heredity
	a) Mutation	b) Reproduction	c) Evolution	d) Heredity	d)
79	A person with AB blood group has				No antibodies
	a) Both A and B antibodies	b) No antibodies	c) Only A antibodies	d) Only B antibodies	b)
80	If both the parents are carries of a recessive disorder, what is the chance for their child to have the disorder?				25%
	a) 25%	b) 50%	c) 75%	d) 100%	a)
81	Match the terms with related processes: A. Transcription — i. RNA to Protein B. Translation — ii. DNA to RNA C. Replication — iii. Change in DNA sequence D. Mutation — iv. DNA to DNA				A-ii, B-i, C-iv, D-iii
	a) A-ii, B-i, C-iv, D-iii	b) A-iv, B-ii, C-i, D-iii	c) A-iii, B-ii, C-i, D-iv	d) A-ii, B-iii, C-i, D-iv	a)
82	Which molecule makes up genes?				DNA
	a) Protein	b) DNA	c) Carbohydrate	d) Lipid	b)
83	In humans, how many chromosomes are present in each gamete cell?				23
	a) 23	b) 46	c) 22	d) 2	a)
84	Which of the following is/ are example(s) of codominant traits? I. ABO blood group system II. MN blood group system III. Hemophilia IV. Thalassemia				I & II
	a) I & II	b) Only I	c) III & IV	d) I & IV	a)
85	Acetabulum is a part of which bone?				Pelvis
	a) Femur	b) Ilium	c) Pelvis	d) Tibia	c)

86	**Assertion (A):** Hemophilia is more common in males than in females. **Reason (R):** Males have only one X chromosome.				Both A and R are true, but R is not the correct explanation of A.
	a) Both A and R are true, but R is not the correct explanation of A.	b) Both A and R are true, and R is the correct explanation of A.	c) A is true, R is false.	d) A is false, R is true.	a)
87	Match the type of adaptation with the environment it suits: A. Down syndrome — i. X-linked recessive disorder B. Hemophilia — ii. Trisomy 21 C. Sickle cell Anemia — iii. Monosomy X D. Turner Syndrome — iv. Mutation in hemoglobin gene				A-ii, B-i, C-iv, D-iii
	a) A-ii, B-i, C-iv, D-iii	b) A-ii, B-iv, C-iii, D-i	c) A-iv, B-ii, C-i, D-iii	d) A-iv, B-i, C-iii, D-ii	a)
88	Foramen Magnum is located in which bone?				Occipital
	a) Temporal	b) Frontal	c) Parietal	d) Occipital	d)
89	The dental formula of permanent human teeth is:				2:1:2:3
	a) 2:1:2:2	b) 2:1:2:3	c) 2:2:2:3	d) 2:1:3:3	b)
90	The longest bone in the human body is:				Femur
	a) Tibia	b) Humerus	c) Femur	d) Radius	c)
91	**Assertion (A):** All human populations have the same number of chromosomes. **Reason (R):** Humans universally have 23 pairs of chromosomes in their somatic cells, regardless of population or ancestry.				Both A and R are true, and R is the correct explanation of A.
	a) Both A and R are true, but R is not the correct explanation of A.	b) Both A and R are true, and R is the correct explanation of A.	c) A is true, R is false.	d) A is false, R is true.	b)
92	Match the following genetic technologies with their application: A. PCR — i. Separating DNA fragments B. Gel electrophoresis — ii. Amplifying DNA C. DNA Fingerprinting — iii. Identifying individuals D. Karyotyping — iv. Detecting Chromosomal Abnormalities				A-ii, B-i, C-iii, D-iv

<table>
<tr><td></td><td>a) A-iv, B-ii, C-iii, D-i</td><td>b) A-ii, B-i, C-iii, D-iv</td><td>c) A-iv, B-ii, C-i, D-iii</td><td>d) A-iv, B-i, C-iii, D-ii</td><td>b)</td></tr>
<tr><td>93</td><td colspan="4">If both A and B antigens are present on the surface of a person’s red blood cells, what will his blood group?</td><td>AB</td></tr>
<tr><td></td><td>a) A</td><td>b) B</td><td>c) AB</td><td>d) O</td><td>c)</td></tr>
<tr><td>94</td><td colspan="4">Which of these skeletal features is a hallmark of bipedalism in humans?</td><td>Foramen magnum positioned centrally</td></tr>
<tr><td></td><td>a) Long forearms</td><td>b) Curved fingers</td><td>c) Foramen magnum positioned centrally</td><td>d) Opposable big toe</td><td>c)</td></tr>
<tr><td>95</td><td colspan="4">The term ‘gene flow’ refers to:</td><td>The movement of genes between populations through interbreeding</td></tr>
<tr><td></td><td>a) The mutation of genes within a population</td><td>b) The movement of genes between populations through interbreeding</td><td>c) Natural selection in isolated populations</td><td>d) Genetic drift in small populations</td><td>b)</td></tr>
<tr><td>96</td><td colspan="4">Assertion (A): Humans share a common ancestor with chimpanzees. Reason (R): Genetic evidence shows that humans and chimpanzees share about 98% of their DNA, suggesting a common evolutionary origin.</td><td>Both A and R are true, and R is the correct explanation of A.</td></tr>
<tr><td></td><td>a) Both A and R are true, but R is not the correct explanation of A.</td><td>b) Both A and R are true, and R is the correct explanation of A.</td><td>c) A is true, R is false.</td><td>d) A is false, R is true.</td><td>b)</td></tr>
<tr><td>97</td><td colspan="4">Match the bone with its location:
<table><tr><td>A. Temporal</td><td>i. Forearm</td></tr><tr><td>B. Radius</td><td>ii. Lower leg</td></tr><tr><td>C. Femur</td><td>iii. Skull</td></tr><tr><td>D. Tibia</td><td>iv. Thigh</td></tr></table></td><td>A-iii, B-i, C-iv, D-ii</td></tr>
<tr><td></td><td>a) A-iii, B-i, C-iv, D-ii</td><td>b) A-ii, B-iv, C-iii, D-i</td><td>c) A-iv, B-ii, C-i, D-iii</td><td>d) A-iv, B-i, C-iii, D-ii</td><td>a)</td></tr>
<tr><td>98</td><td colspan="4">What is sexual dimorphism?</td><td>Differences in appearance between males</td></tr>
</table>

					and females of a species
	a) A genetic mutation affecting bones	b) Differences in appearance between males and females of a species	c) A disease related to reproduction	d) A form of social behavior	b)
99	Which genetic material is most commonly used in tracing maternal ancestry?				Mitochondrial DNA
	a) Autosomal DNA	b) Y-chromosome DNA	c) Mitochondrial DNA	d) Ribosomal RNA	c)
100	Which of the following statement(s) is/ are true? I. DNA is located in the nucleus of a cell II. The pancreases produce insulin III. Human heart has four chambers IV. Small intestine is shorter than the large intestine				All are true
	a) All are true	b) I, II & III are true	c) I & II are true	d) I, II & IV are true	a)