

PARUL UNIVERSITY
PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION, MARCH 2020
B.Sc Forensic Science Semester VI

Paper Name: Forensic Anthropology

Date: 03/03/2020

Paper Code: 11107352

Time: 1hr 30min

Max. Marks: 40

Instructions:

1. All questions are compulsory and options are given in first and second question only.
 2. Numbers to the right of question indicate the marks of respective question.
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Q. 1 Attempt **any one** question of the following. **(08)**

- (i) Explain in detail the different components of the human axial skeletal system.
- (ii) Explain in detail antemortem, perimortem and post mortem trauma seen on skeletal evidences.

Q. 2 Attempt **any three** questions of the following. **(12)**

- (i) Write a note on the Haversian system of human bone explaining in detail its different components and mention its distinguishing features with other non-mammalian bones.
- (ii) Explain the different directions of force applied on bones giving rise to evidences on the bone surface.
- (iii) In a homicide case, skeletal remains- a skull, thoracic cage and a pelvic girdle was obtained buried in the ground in a forested area. The remains were recovered using different equipments taking care that no damage is caused to the recovered evidences. How can we establish the sex of the individual from the remains obtained from the forested area.
- (iv) Explain cephalic index, brachial index and crural index and write a note on their application in forensic anthropology in detail.
- (v) How can age determination be carried out from the skull sutures, mandible and sternum obtained as an evidence?

Q. 3 Do as directed. Attempt **all five** questions. **(05)**

- (i) Give a regression formula that can be used for the estimation of stature from any complete intact long bone obtained as an evidence.
- (ii) Name the different regressive changes considered in Gustafson's method.
- (iii) Write down the applications of skinfold caliper and osteometric board in forensic anthropology.
- (iv) Explain the different kinds of ribs found in the human thoracic cage.
- (v) Name any four kind of fractures found on bones.

Q. 4 Write correct option in your answer sheet for following 15 multiple choice questions. **(15)**

- MCQ 1 The suture fuses by approximately 2-4 years of age in humans.
(A) Sagittal (B) Metopic
(C) Coronoid (D) Squamous
- MCQ 2 Dowager's hump is caused due to which of the below fractures?
(A) Greenstick fracture (B) Radial fracture
(C) Concentric fracture (D) Fatigue fracture
- MCQ 3 The incomplete discontinuity appearing on the bones due to a trauma are known as
(A) Fracture lines (B) Displacements
(C) Infractures (D) Fractures
- MCQ 4 A fracture in the bone can be seen in cases of strangulation.
(A) Sternum (B) Clavicle
(C) Hyoid (D) Vomer
- MCQ 5 The central cavity present in the Haversian system is known as the
(A) Neural canal (B) Central canal
(C) Foramen magnum (D) Volkmann's Canal
- MCQ 6 The cancellous bone is also known as the
(A) Trabecular bone (B) Compact bone
(C) Cortical bone (D) Periosteum
- MCQ 7 Which of the below is NOT a type of vertebra?
(A) Lumbar (B) Thoracic
(C) Cervical (D) Lambdoid
- MCQ 8 In the foetal skull, there are gaps in between the different lobes which are then later replaced by sutures. These gaps are known as the
(A) Sinuses (B) Diastema
(C) Fontanelles (D) Centrum
- MCQ 9 The humerus articulates with the in the scapula to form a joining with the pectoral girdle.
(A) Acetabulum (B) Glenoid fossa
(C) Trochlear joint (D) Patella

- MCQ 10 A heart shaped pelvic cavity is seen which of the following pelvic girdles?
(A) Female pelvic girdle (B) Male pelvic girdle
(C) Both (D) None of the above
- MCQ 11 Hardness of the bone is due to deposition of the inorganic mineral salt called
(A) Calcium (B) Osteocytes
(C) Ossein (D) Hydroxyapatite
- MCQ 12 The human adult dental formula is
(A) 212/ 212 (B) 2123/ 2123
(C) 2132/ 2132 (D) None of the above
- MCQ 13 A static speed of force can be seen in which of the below cases?
(A) Projectile (B) Stabbing
(C) Chopping actions (D) Manual strangulation
- MCQ 14 A green response can be seen in which of the below types of trauma?
(A) Post- mortem trauma (B) Perimortem trauma
(C) Antemortem trauma (D) All of the above
- MCQ 15 Hinging CANNOT be seen in which of the below types of trauma?
(A) Post-mortem trauma (B) Perimortem trauma
(C) Antemortem trauma (D) None of the above

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