



INDIAN SCHOOL SOHAR
UNIT TEST II (2023- 24)
PHYSICAL EDUCATION
SET -II

CLASS: XI
DATE: 16/01/2024

MAX MARKS: 20
TIME: 40 MINUTES

GENERAL INSTRUCTIONS:

- 1) The question paper consists of 4 sections and 10 Questions.
- 2) Section A consists of five objective-type questions carrying 1 mark each.
- 3) Section B consists of two very short questions carrying 2 marks and should not exceed 60-90 words.
- 4) Section C consists of two short questions carrying 3 marks and should not exceed 100-150 words.
- 5) Section D consists of one long question carrying 5 marks and should not exceed 200-300 words.

SECTION - A

- Q1. What is the range of healthy body mass index according to WHO? (1)
 (a) 18.5 – 24.9 (c) 30 – 34.9
 (b) 25 – 29.9 (d) 35 – 39.9
- Q2. The formula is used to calculate the waist-hip ratio of an individual..... (1)
 (a) Circumference of Waist/ Circumference Hip
 (b) Circumference of Hip / Circumference of Waist
 (c) Circumference of Waist / (Circumference of Hip)²
 (d) Circumference of Hip X 100 / Circumference of Waist
- Q3. Ligament connects..... (1)
 (a) Bone to muscle (c) Cartilage to muscle
 (b) Bone to bone (d) Skin to cartilage
- Q4. The volume of blood pumped out by the heart in one beat is called..... (1)
 (a) Cardiac Volume (c) Stroke Volume
 (b) Tidal Volume (d) Residual Volume
- Q5. Identify the joint. (1)

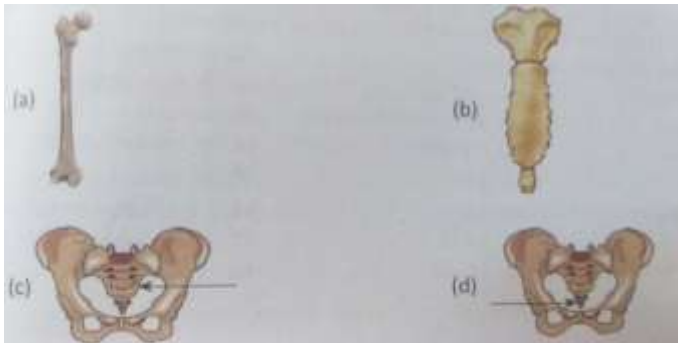


- (a) Gliding Joint (b) Condyloid Joint (c) Saddle Joint (d) Ball & Socket Joint

SECTION - B

Q6. Define Test and Measurement. (2)

Q7. Identify the following bones and write their names: (1/2 X 4 = 2)



SECTION - C

Q8. Discuss any six importance of test, measurement and evaluation. (3)

Q9. What do you mean by skinfold measurement? Discuss any two procedures for skinfold measurement. (3)

SECTION - D

Q10. Explain the properties & functions of muscles. (5)

OR

Elucidate the Body Mass Index? Explain the procedure of calculation of BMI.



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1. (a) 18.5 – 24.9
2. (a) Circumference of Waist/ Circumference Hip
3. (b) Bone to bone
4. (c) Stroke Volume
5. (c) Saddle Joint
6. **Test** is a tool which is used to evaluate the skill, performance and reliability of a task completed by a sportsperson. **Measurement:-** Measurement is about the data of performance of task completed by a sportsperson.
7. (a) Humerus (b) Sternum (c) Sacrum (d) Coccyx
8. **Importance of Test, Measurement and Evaluation**
 - 1- Classification of sportsperson
 - 2- Selection of sportsperson
 - 3- Motivation of sportsperson
 - 4- To study the development of sportsperson
 - 5- To evaluate the learning programmes
 - 6- To know the capabilities and abilities of sportsperson
 - 7- To discover the needs of sportsperson
 - 8- To conduct the research work.
9. Skinfold measurement is also called as “fatfold thickness”. These measurements provide the information or data of the thickness of double folds of the skin and sub cutaneous adipose tissue at specific sites of the body. In simple words skinfold provides the information about general fatness of the body. The procedure of skinfold measurement is as under-
 1. **Triceps Skinfold** - The arm of the subject or child should be hung loosely. Stand behind the subject and pull the vertical skinfold about 1/2 inches from the spot already marked. Keep the skinfold caliper perpendicular to the length of the fold centering the mark. Record the measurement to the nearest millimeter.
 2. **Sub scapula skinfold**- After locating the marked point on the sub scapular region , pull a skin fold for about 34 inch above and keep the skin fold caliper perpendicular to the length of skinfold. Release the caliper and note the measurement to the nearest millimeter.
 3. **Suprailiac skinfold**- The subject should stand straight with his feet together and arms relaxed. Pull a skinfold 34 inch above the marked point with the thumb and index finger. The skinfold caliper should be kept perpendicular to the length of skin fold. Release the caliper and note the reading on the dial to the nearest of millimeter and record it.
 4. **Abdomen skinfold** - After locating the already marked point, pull a horizontal skinfold to about 34 inch. Place the skinfold caliper perpendicular to the length of skinfold. Release the caliper and note the reading to the nearest of millimeter and record it.
 5. **Thigh skinfold** — the person is made to stand with his weight on the left leg and right leg forward with knee slightly bent. Grip a skinfold on the already marked area on the mid-thigh. Place the skinfold caliper and note the reading to the nearest of millimeter and record it.
10. **Functions and Properties of muscle tissue**
 - **Movement:** Our body's skeleton gives enough rigidity to our body that skeletal muscles can yank and pull on it, resulting in body movements such as walking, chewing, running, lifting, manipulating objects with our hands, and picking our noses.
 - **Maintenance of posture:** Without much conscious control, our muscles generate a constant contractile force that allows us to maintain an erect or seated position, or posture.
 - **Respiration:** Our muscular system automatically drives movement of air into and out of our body.
 - **Heat generation:** Contraction of muscle tissue generates heat, which is essential for maintenance of temperature homeostasis. For instance, if our core body temperature falls, we shiver to generate more heat.
 - **Communication:** Muscle tissue allows us to talk, gesture, write, and convey our emotional state by doing such things as smiling or frowning.
 - **Constriction of organs and blood vessels:** Nutrients move through our digestive tract, urine is passed out of the body, and secretions are propelled out of glands by contraction of smooth

muscle. Constriction or relaxation of blood vessels regulates blood pressure and blood distribution throughout the body.

- Pumping blood: Blood moves through the blood vessels because our heart tirelessly receives blood and delivers it to all body tissues and organs.
- This isn't a complete list. Among the many possible examples are the facts that muscles help protect fragile internal organs by enclosing them, and are also critical in maintaining the integrity of body cavities. For example, fetuses with incompletely formed diaphragms have abdominal contents herniate (protrude) up into the thoracic cavity, which inhibits normal lung growth and development. Even though this is an incomplete list, an appreciation of some of these basic muscle functions will help you as we proceed.
- **Properties of muscle :**
- All muscle cells share several properties: contractility, excitability, extensibility, and elasticity:
- Contractility is the ability of muscle cells to forcefully shorten. For instance, in order to flex (decrease the angle of a joint) your elbow you need to contract (shorten) the biceps brachii and other elbow flexor muscles in the anterior arm. Notice that in order to extend your elbow, the posterior arm extensor muscles need to contract. Thus, muscles can only pull, never push.
- Excitability is the ability to respond to a stimulus, which may be delivered from a motor neuron or a hormone.
- Extensibility is the ability of a muscle to be stretched. For instance, let's reconsider our elbow flexing motion we discussed earlier. In order to be able to flex the elbow, the elbow extensor muscles must extend in order to allow flexion to occur. Lack of extensibility is known as spasticity.
- Elasticity is the ability to recoil or bounce back to the muscle's original length after being stretched.

OR

BMI is a weight-to-height ratio that measures a person's weight. The BMI is measured by multiplying the body mass by the square of the body height and is expressed in kilograms per square meter (kg/m²).

BMI is a simple metric to calculate and analyze. With the aid of the BMI, one can decide if they are underweight, average weight, overweight, or obese. BMI is measured by dividing an individual's body weight by the square of his height. A BMI map can be used to calculate BMI.

With the assistance of the World Health Organization (WHO) underweight and obesity guidelines, a person can now determine if he or she is underweight, average weight, overweight, or obese. The following table lists the categories and BMI.

| S.No | Category | BMI |
|-------------|-------------------|-------------|
| 1 | Under weight | < 18.5 |
| 2 | Normal weight | 18.5 < 24.9 |
| 3 | Overweight | 25.0 < 29.9 |
| 4 | Obesity class I | 30.9 < 34.9 |
| 5 | Obesity class II | 35.0 < 39.9 |
| 6 | Obesity class III | > 40 |
