

**YEAR: 10**

**SUBJECT: SCIENCE**

**TEST: Sport Science**

**TIME: 45 mins**

**QUESTIONS: Part A: Multiple Choice Questions (10 marks)**

**Part B: Short Answer Questions (25 marks)**

**Part C: Extended Answer Question (10 marks)**

**TOTAL MARKS: 45 marks**

**SECTION ONE: Multiple Choice Questions (1 mark each)**

**Answer this section on the separate multiple choice answer sheet**

1. Which of the following is **NOT** a skill-related component of fitness?
2. Agility
3. Speed
4. Muscular endurance
5. Power
6. Which component of fitness is measured in the “Beep Test?”
7. Muscular endurance
8. Cardiovascular endurance
9. Strength
10. Power

3. What is the composition ratio of blood to plasma?

1. 45% blood, 55% plasma
2. 50% blood, 50% plasma
3. 55% blood, 45% plasma
4. 60% blood, 40% plasma
5. 4. The plyometric training method focuses on which component of fitness?
6. Muscular endurance
7. Agility
8. Strength
9. Power

5. What is the normal blood pressure for an adult?

1. 120 / 60
2. 140 / 80

c. 140 / 60

d. 120 / 80

1. 6. How many bones make up the adult skeleton?
3. 220
4. 206
5. 246
6. 270

7. Which of the following is **NOT** a type of bone?

1. Flat
2. Short
3. Wide
4. Long

8. The Olympics have banned the practice of “blood doping” in athletes, as it causes an unfair advantage. Blood doping increases which constituent of blood?

1. Red blood cells
2. White blood cells
3. Platelets
4. Plasma

9. The shoulder is an example of which type of joint?

1. Synovial
2. Fibrous
3. Gliding
4. Cartilaginous

10. Being extremely flexible in a joint is referred to as being “double jointed.” Which of the following is **NOT** a medical term for being double jointed?

1. Hyperextensible
2. Hypermobile
3. Hyperflexible
4. Hypertensile



**SEMESTER ONE 2016**

**Sport Science:**

**ANSWER BOOKLET**

**NAME:**

**FORM:** **DATE:**

Multiple Choice Short Answer Extended Answer Total

**/28**

**/12**

**/50**

**/10**

**SECTION ONE:** Multiple choice answers

Cross (X) through the correct answer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | a | b | **X** | d |
| 2 | a | **X** | c | d |
| 3 | **X** | b | c | d |
| 4 | a | b | c | **X** |
| 5 | a | b | c | **X** |
| 6 | a | **X** | c | d |
| 7 | a | b | **X** | d |
| 8 | **X** | b | c | d |
| 9 | **X** | b | c | d |
| 10 | a | b | c | **X** |

**SECTION TWO: Short Answer (28 marks)**

Answer the questions in the spaces provided.

**Question 11**

The SMART acronym is effective in goal setting, and each letter in SMART represents a goal setting principle. List the five principles: (5 marks)

S: **SPECIFIC**

M: **MEASURABLE**

A: **ATTAINABLE 1 MARK EACH**

R: **REALISTIC**

T: **TIME**

**Question 12**

There are three types of blood vessels. List all three and describe their purpose in the cardiovascular system. (6 marks)

**Arteries: carry blood away from heart. 1 MARK FOR EACH BLOOD VESSEL**

**Veins: carry blood to the heart. 1 MARK FOR EACH PURPOSE**

**Capillaries: allow oxygen and nutrient to pass into cells and carbon dioxide and wastes to pass out.**

**Question 13**

The skeletal system has five important functions. List each function below. (5 marks)

**SUPPORT STORGAE OF MINERALS**

**PROTECT PRODUCTION OF RED BLOOD CELLS**

**MOVEMENT 1 MARK EACH**

**Question 14**

List three health related components of fitness, and list three skills related components of fitness. (6 marks)

Health related components:

**CARDIORESPIRATORY**

**MUSCULAR ENDURANCE**

**MUSCULAR STRENGTH 1 MARK EACH**

**FLEXIBILITY**

**BODY COMPOSITION**

Skill related components:

**POWER**

**AGILITY**

**SPEED 1 MARK EACH**

**BALANCE**

**REACTION TIME**

**Question 15**

Define the following terms: (2 marks)

Stroke volume:

**The amount of blood the heart pumps per beat. 1 MARK**

Cardiac output:

**The amount of blood the heart can circulate in one minute. 1 MARK**

**Question 16:**

The body has various types of joints. List two different types of joints, and provide an example of each. (4 marks)

**Fibrous = No movement (Skull) 1 MARK FOR JOINT**

**Cartilaginous = Slightly moveable (Ribs and sternum) 1 MARK FOR EXAMPLE**

**Synovial = Freely moveable (Shoulder)**

**SECTION THREE: Extended Answer (12 marks)**

Answer the question in the spaces provided.

**Question 17:**

A friend of yours has found out about your sports science knowledge, and wants you to help them improve in their favourite sport, basketball! Being the great friend that you are, you have offered to help you friend improve on **ONE** health related components of fitness, and **ONE** skill related components of fitness. These tests are of your choice, but must be relevant to BASKETBALL.

In order to measure and improve on these components, you must:

* Suggest a fitness test for each component you have chosen.
* Apply the SMART goal principle to **ONE** of your components.
* Design a training session for your friend, focusing on the component of fitness you applied the SMART principle to. You must implement a **training method**, and construct a training session with a warm up and a cool down.
* Finish with a justification, explaining how your choice of fitness components, fitness tests and training session are relevant to the sport of basketball.
* **1 MARK FOR HEALTH RELATED COMPONENT OF FITNESS**
* **1 MARK FOR SKILL RELATED COMPONENT OF FITNESS**
* **1 MARK FOR EACH RELEVANT FITNESS TEST (2 TOTAL)**
* **1/2 MARK FOR EACH RELEVANT GOAL IN SMART ACRONYM (2.5 TOTAL)**
* **1 MARK FOR RELEVANT TRAINING METHOD**
* **½ MARK WARM UP, ½ MARK COOL DOWN, 2 MARKS FOR RELEVANT SESSION (3TOTAL)**
* **1.5 MARKS FOR JUSTIFICATION (1/2 MARK EACH: COMPONENTF OF FITNESS, GOAL SETTING, TRAINING SESSION)**

**END OF TEST**

Please go back and check your work / complete any unanswered questions.