



GCSE PE

**CORE KNOWLEDGE
QUIZ BOOKLET
2019-20**

QUESTIONS

Exam Topic 1 – Fitness and Body Systems

1hr 45mins 90 Marks

Wednesday 13th May 2020 – PM

Sections to revise:

Functions of the musculo-skeletal system
Location of 20 bones
Classification of bones
Classification of joints
Range of movements at joints
Role of ligaments, tendons & cartilage at joints
Classification of muscles
Location of 12 muscles
Movements produced at each muscle
Antagonistic pairs
Muscle fibre types
Short term effect of exercise on the musculo-skeletal system
Long term effect of exercise on the musculo-skeletal system
How the musculo-skeletal system allows participation in sport

Functions of the cardiovascular system
Labelling of the heart
Blood flow
Structure of arteries, veins and capillaries
Vascular shunting, vasoconstriction & vasodilation
Components of blood and function of each
Composition of air
Labelling of the respiratory system
Gases exchange
Aerobic and anaerobic exercise
Short term effect of exercise on the cardio-respiratory system
Long term effect of exercise on the cardio-respiratory system
How the cardio-respiratory system allows participation in sport

Lever systems
Mechanical advantage & disadvantage
Planes of movement

Components of fitness
Fitness testing
Principles of training
Methods of training
Warm-Up & cool-Down
PAR-Q

Injury Prevention
Sporting injuries & treatment

Drugs

Definitions

Musculo-Skeletal System

Skeletal System

What are the 5 functions of the musculoskeletal system?

Can you point to the 20 bones in your body you need to know for your exam?

What are the 4 classification of bones? Function of each classification?

What classification does each bone belong too?

What are the regions of the vertebrae column and how many bones are in each?

What are the functions of each region of the vertebrae column?

What does the vertebrae column protect?

What is a joint?

What is the role of the 3 connective tissues at a joint?

Can you give examples of the 4 types of synovial joints?

Can you name the 8 range of movements possible at synovial joints and give a sporting example?

Which movement is possible at each synovial joint?

Musculo-Skeletal System

Muscular System

What are the 3 types of muscle?

What are the 3 functions of the voluntary muscular system?

Can you point to the 12 voluntary muscles in your body you need to know for your exam?

Can you describe the movement produced by each muscle?

Can you name 4 antagonistic pairs and explain how they work together?

What are the 3 muscle fibres types and give an example of which sports they would suit?

Can you name 1 negative and 1 positive for the 3 different muscle fibre types?

Can you name the 3 short term effects of exercise on muscles?

Can you name the 3 long terms effects of exercise on the musculo-skeletal system?

What is also required for these long term effects of exercise to occur?

What is weight bearing exercise?

Why is diet so important to the skeletal system?

What are Myofibrils?

What are Myoglobin?

What are Mitochondria?

Cardio-Respiratory System

Cardiovascular System

What is the cardio-respiratory system?

What is the cardiovascular system made up of?

What are the functions of the cardiovascular system?

What is blood pressure?

Can you explain the difference between Systolic and Diastolic pressure? (DR SC)

What are the four valves in the heart? (Tri before you Bi)

Which two are also known as the semi-lunar valves?

Which is the differences between the inferior and superior vena cava?

What is the name of the blood vessel that supplies the body with oxygen?

What are the differences between veins, arteries and capillaries?

Can you discuss the flow of blood starting at the vena cava?

Can you explain blood shunting during exercise?

What are the four components of blood? Function of each component?

What are the 5 short term effects of exercise on the cardiovascular system?

What are the 10 long term effects of exercise on the cardiovascular system?

Can you explain some effects lifestyle can have on the cardiovascular system?

Define cardiac output?

What is the cardiac equation?

Define heart rate?

Define stroke volume?

Cardio-Respiratory System

Respiratory System

What are the main functions of the respiratory system?

What is 'Tidal Volume'?

What is 'Vital Capacity'?

What is lung volume?

What are Alveoli and what do they do?

What is the difference between aerobic and anaerobic respiration?

What are the energy equations?

What is Lactic acid?

What is Oxygen debt?

What are the 5 short term effects of exercise on the respiratory system?

What are the 6 long term effects of exercise on the respiratory system?

What is VO₂ max?

What is diffusion?

What is the composition of air we inhale and exhale?

What are the effects of aerobic training?

What are the effects of anaerobic training?

Mechanics of breathing – What happens to allow us to inhale?

Mechanics of breathing – What happens to allow us to exhale?

Movement Analysis

Lever Systems

What are the 3 types/classes of levers in the body and give an example of each?

Can you draw the three different types/classes of lever?

Which levers have a mechanical advantage/disadvantage?

Describe a mechanical advantage?

Describe a mechanical disadvantage?

Planes and Axes of Movement

Can you name the 3 planes of movement in the body?

Can you name the 3 axes in the body?

Which is the correct description of the sagittal plane?

Which is the correct description of the frontal plane?

Which is the correct description of the transverse plane?

Can you describe a movement in the 3 planes and axis?

Movement in the sagittal plane occurs around which axis?

Movement in the frontal plane occurs around which axis?

Movement in the transverse plane occurs around which axis?

Fitness Training

What is the definition of Fitness?

What is the definition of Health?

What is the definition of Exercise?

What is the definition of performance?

What does HRE stand for?

Can you list the 5 components of HRE and give a full definition for each?

What does SRF stand for?

Can you list the 6 components of SRF and give a full definition of each?

Can you choose a sport & list the 3 most important components of HRE & SRF for it, and explain why?

Think of the areas of HRE and SRF. Can you think of a fitness test you could use for each of these areas and explain it?

What is a test protocol?

What is the difference between quantitative and qualitative data?

What are the principles of training? Can you give a definition and example of each?

What does FITT stand for?

Can you explain each element of FITT?

Why would you use the FITT principle? (linked to progressive overload)

Why is rest and recovery important?

List the 6 methods of training?

Can you give at least 2 advantages of each method of training?

Can you give at least 2 disadvantages of each method of training?

Can you name and explain the 5 different exercise classes?

What are the advantages/disadvantages of fitness classes?

Why would you use different methods to train?

Think of the methods you use most regularly within your own sport, justify why you use them?

What 4 are the 4 stages of designing an effective exercise programme?

What does PAR-Q stand for and why is it used?

What does SMART mean?

Can you describe each area of SMART?

List 4 reasons why we set SMART targets?

Give an example of a SMART target?

What are the three areas of an exercise session?

3 stages of a warm-up?

3 stages of a cool-down?

List the 5 reasons we warm-up?

List the 6 reasons we cool-down?

Can you explain Aerobic and Anaerobic fitness?

How do you work out your training zones (Korvonen formula)?

Can you explain the following?

Heart rate:

Resting Heart rate:

Working Heart rate:

Maximum Heart rate (MHR):

Recovery Rate:

Injury Prevention & Treatment

Name and explain the 6 steps for preventing injury in sport.

What are the 5 types of hard tissue injuries which can occur during sport and their symptoms?

Name the three soft tissue injuries which can occur in sport.

What is the correct treatment for soft tissue injuries?

Drugs

Can you name the 6 Performance Enhancing Drugs & explain the effects of each?

What is a Masking Agent?

What is Blood Doping (illegal)?

Why do some athletes do training at high altitude (legal)?

Why do people risk it all by taking drugs? (3 pressures)

What are the consequences of being found guilty of using a performance enhancing drug?

Exam Topic 2 – Health and Performance

1hr 15mins 70 Marks

Friday 15th May 2020 – PM

Sections to revise:

How participation in sport can promote physical, social and emotional health

Impact of fitness on well-being

Lifestyle choices – positive and negative effects

Effects of a sedentary lifestyle

7 Categories of a balanced diet

Macro and micro nutrients

Optimum weight

Energy balance

Hydration

Classification of skill

Types of guidance

Types of feedback

Mental preparation for performance

Engagement and participation rates

Commercialisation of sport

Sporting behaviour and sporting deviance

DIET

Can you list the 7 parts of a balanced diet?

What is the primary function of each category of food?

Which are macro and micro-nutrients?

What do we mean by a 'balanced diet'?

What are the two types of carbohydrate and what do they do?

What are the two types of fat and what foods are included in each?

Can you name at least 3 reasons why it's important to stay hydrated?

When are the 3 times we should hydrate when exercising?

What are the 4 ways we can change our diet to improve sports performance?

What is carbo-loading and why is it important?

What is Optimum weight and what factors can affect it?

Can you describe the energy balance and explain how we lose, maintain and gain weight?

Can you define Obese?

Can you define Overfat?

Can you define Overweight?

Can you explain how you can be overweight but healthy?

What is Body mass index (BMI)?

What is Metabolic Rate?

What is vascular shunting?

Benefits of Participation

Can you list as many effects of exercise on health as you can?

Can you divide those reasons into physical, emotional and social?

How are these health benefits achieved?

Negative effects of overtraining on your physical health?

Negative effects of overtraining on your emotional health?

Negative effects of overtraining on your social health?

Define well-being?

What is Aesthetic Appreciation?

Lifestyles Choices

Describe what is meant by lifestyle choices?

What are the 5 lifestyle choices that affect our health?

How can the choices we make about diet, exercising and work/rest/sleep balance affect our health?

What affects can excess alcohol have on your health?

What affects can excess alcohol have on sports performance?

What affects can smoking have on your health?

What affects can smoking have on sports performance?

Factors Affecting Participation & Sedentary Lifestyle

What are 6 factors which affect participation?

What are the 8 barriers to participation? Explain the link between the factors and barriers?

Can you link the barriers to the target groups?

What is a sedentary lifestyle?

List the 7 long term health problems linked to a sedentary lifestyle?

What is diabetes?

What is Coronary Heart Disease?

How can exercise reduce chances of coronary heart disease?

Why is high blood pressure dangerous?

What is depression?

What is osteoporosis?

Commercialisation

What is commercialisation?

What 3 things make up the golden triangle of sports commercialisation?

Can you name 2 advantage and 2 disadvantages of commercialisation on sport?

Can you name 2 advantage and 2 disadvantages of commercialisation on players

Can you name 2 advantage and 2 disadvantages of commercialisation on spectators

Can you name 2 advantage and 2 disadvantages of commercialisation on sponsors?

Sporting Behaviour

What is Deviance?

What is Negative Deviance? Example?

What are the consequences of negative deviance?

What is being done to prevent negative deviance?

What is the current trend for negative deviance in sport?

What is Gamesmanship (Positive Deviance)? Example?

What is Sportsmanship? Example?

What does sportsmanship create?

Classification of Skill

What are the 3 different skill continuums?

Define the term 'Basic Skill'? E.g.

Define the term 'Complex Skill'? E.g.

Define the term 'Open Skill'? E.g.

Define the term 'Closed Skill'? E.g.

Can you define the term 'Low Organisation Skill'? E.g.

Can you define the term 'High Organisation Skill'? E.g.

Types of Practice

Can you name the 4 different types of practice?

Can you define the term 'massed practice'? (Without rest)

What are the advantages of massed practise?

What are the disadvantages of massed practise?

Can you define the term 'distributed Practice'? (Time for feedback)

What are the advantages of distributed practise?

What are the disadvantages of distributed practise?

Can you define the term 'Fixed Practice'? (Repeated)

What are the advantages of fixed practise?

What are the disadvantages of fixed practise?

Can you define the term 'variable Practice'? (Apply)

What are the advantages of variable practise?

What are the disadvantages of variable practise?

What is each different practise most useful for?

Types of Guidance

Can you name the 4 types of guidance?

Can you define the term 'Manual Guidance'?

Can you define the term 'Mechanical Guidance'?

Can you list 3 types of visual feedback a coach may use?

Name 2 advantages and disadvantages of visual feedback?

Name 2 advantages and disadvantages of verbal feedback?

Name 2 advantages and disadvantages of manual feedback?

Name 2 advantages and disadvantages of mechanical feedback?

Is verbal feedback more suitable for novice or experienced performers and why?

Can you state the type of guidance being used if a coach uses a tumbling belt to help a performer learn to somersault in Trampolining?

Types of Feedback

Can you list the 4 types of feedback?

Can you describe the term 'Intrinsic Feedback'?

Would a novice use intrinsic feedback? Justify your answer

Would an experienced performer use intrinsic feedback? Justify your answer

Can you describe the term 'Extrinsic Feedback'?

Would a novice use extrinsic feedback?

Would an experienced performer use extrinsic feedback?

Can you describe the term 'Concurrent Feedback'?

Can you describe the term 'Terminal Feedback'?

Mental Rehearsal

Name 2 ways we can mentally prepare for sports performance

Can you define the term 'Mental Rehearsal'?

Which one of the following is a correct statement about mental rehearsal?

List 4 benefits of mental rehearsal?

Give an example of an athlete using mental rehearsal?