

Marking Scheme
PHYSICAL EDUCATION (048)
CLASS XII (2017-18)

Q-1 The league tournament is known as round robin tournament. All teams play their matches in their respective zones irrespective of winning or losing. All the zonal winner teams again play on league basis and one team becomes the winner of inter-zonal or group tournament

Q-2 Food intolerance means when an individual has difficulty in digesting a particular food. It is more common than food allergy. It can be tolerated a reasonable amount of food. Food intolerance comes on gradually not frequently. It is not life threatening.

Q-3 Diabetes is a disease in which the glucose or blood sugar level increases. Lack of secretion of insulin by the gland is the major cause of diabetes. Our liver and endocrine glands play an important role in the regulation of sugar level in the blood.

Q-4 Genetic-It is observed that parent, sibling and children of a person with OCD have more chance of developing OCD than does someone with no family history of the disorder.

Q-5 Motor development means the development of child's bones, muscles and the ability to move around. They learn to sit, walk, stand and run. It is the study of changes in movement behavior.

Q-6 In functional disability the body organs are affected, normally these faults occur due to chronic diseases and sometimes the reason may be congenital. It can be categorized:-

a- Hearing b- Visual c- Motor- d- Organic

Q-7 Deficiency of enough healthy red blood cells to carry sufficient oxygen to tissues. Due to lack of hemoglobin, the oxygen is not supplied to different parts of the body.

Q-8 Rockport 1 mile test is a test for measuring cardio-respiratory fitness. The objective of this test is to check/observe the development of the individual's VO₂ max. i.e. maximum volume of oxygen.

Q-9 First-Aid was used by St. Johns Ambulance Association in 1879. First-Aid is the immediate and temporary aid given to the injured person during injury or sudden illness. It mostly does things to minimize further damage.

Q-10 Aerodynamic is related to the flow of air around a projectile, which can influence the speed and direction of the object. The four forces of flight are lift, gravity, thrust and drag. These forces make an object move up and down, and faster and slower.

Q-11 Endurance is the ability of the body to work for a long time without getting fatigued. Types of endurance are:-

a- Aerobic endurance (Short-term endurance, Medium-term endurance, long-term endurance)

b- Anaerobic endurance c-Speed endurance d-Strength endurance

Q-12 Objectives of intramural tournament:-

1 To promote mass participation-to provide opportunity to all the students to display their skills.

- 2 To develop socialization- Students can develop lots of social qualities.
- 3 To provide recreation-This provides recreation to the students.
- 4 To hunt the talent-it provides opportunities to the students to show their talent.
- 5 To learn new skills-provide opportunity to learn new skills.
- 6 To develop the feeling of sportsmanship

Q-13 As per your understanding

Q-14 Pitfalls of dieting

- 1 Intake of important nutrients in limit-insufficient intake of carbohydrates, protein, vitamins and fat creates many health problems.
- 2 Attitude to lose weight can lead to serious health problems.
- 3 Starvation-It is misconception that skipping of any meal can reduce weight but it can create any health problem.
- 4 Stress-over consciousness of losing weight creates anxiety and stress.
- 5 reducing of calories can leads to enervation.

Q-15 Three methods to prevent asthma

- a -To make your nearby area clean- Keep your home and work place clean, use of mask while cleaning.
- b -Avoid dust -minimize the dust in your home and working area, remove carpet and install wood work which can reduce the dust.
- c -Air conditioners to be used-The air flow areas are to be closed(windows) of home and this reduces the entry of air borne pollens that can cause asthma. Asthma also be managed by following ways.
keep off obesity
regular exercise
Eat plenty of water and vegetables
Control acidity

Q-16 Procedure for six minute walk test-The subject is asked to walk for six minute around the 50 yards dimensional area. The cones are placed at regular intervals to indicate distance covered. The maximum distance covered in six minutes. Measure the distance covered in six minutes to the nearest metre.

Q-17 Three gender differences

- a Physical Differences- Till the age of 14 the boys and girls are not different in body size .Endocrine system start changes at puberty. In women estrogen plays important role in broadening of pelvis, develops breast size. In men estrogen affect on sperm count.
- b Strength- The muscular strength in women is found to be lesser than men.
- c- Cardiovascular functions- The size of heart is smaller in women than men. During vigorous workouts men have better cardiac output than women.

Q-18 Management of Fracture- First aid for closed and open fracture-

The injured part can be immobilized with the help of sling in closed fracture. During open fracture the open wound must be covered by sterile gauze or dressing. The compression and elevation is given to stop the bleeding. The sling is used to immobilize the injured part.

For transporting the injured person to the hospital, sitting position is desirable but in complicated cases person can be transported in a lying position on a stretcher.

Q-19 Method of sit and reach test-The subject is advised to sit on the edge of the chair. One foot is kept at the floor while the other leg is extended with knee straight. The subject must keep the back straight and head up. The subject has to touch the toe with fingertips. If the fingertips do not touch then the distance in between fingertips and is measured and the score will be negative.

Q-20 Fixture of 7 teams in league tournament in cyclic method

$$\begin{aligned} \text{number of matches} &= \frac{n(n-1)}{2} && n = \text{no of teams} \\ \frac{7(7-1)}{2} &= \frac{7 \times 6}{2} && = \frac{42}{2} && = 21 \text{ matches} \\ \text{Total no of rounds} &= 7 \end{aligned}$$

Q-21 Effect of diet on sports performance-

Pre Event - Solid to be taken four hours before the competition. Protein can be avoided before the competition. Carbohydrates help in maintaining the blood glucose level. Always avoid rich fat and protein in the diet, because they slow down the digestion.

During Competition-Carbohydrates can be easily digested and can provide energy in a short period of time. Marathon / endurance runners while running generally consume a high carbohydrate containing gel.

After/post competition- post competition meals provides fast recovery. carbohydrates are consumed to restore glycogen. Concentrate of meal on carbohydrate at least 100-200gms. Consuming protein with carbohydrates post exercise will help in building, maintaining and repairing tissues.

Q-22 Causes of 05 postural deformities-

Knock Knee-

-The knock is commonly caused by irregular growth of the lower leg bones and weak ligaments. Rickets is also a cause of knock knee.

Flat Foot--Faulty posture

Prolonged standing

Excessive body weight

Lack of exercise

Round Shoulder-

- Poor Posture
- Faulty Furniture
- Lack of physical exercise
- Carrying heavy loads on shoulders

Lordosis-

- Weakening of the bones
- Due to lose abdominal muscles
- Due to bad posture/habits

Bow legs

- Due to the deficiency of vitamin -D, Calcium and Phosphorous
- Due to Blount's disease
- Due to overstraining on bones because of long standing of hours.

Q-23 Administered of AAHPER Motor Fitness Test. The test was administered on school students of 17 ages.

Pull up for boys-To measure arm and shoulder strength. This test measures the total no of repetitions performed without taking rest on a horizontal bar.

Flexed arm hang for girls- To measure arm and shoulder strength-The test is administered on a adjustable horizontal bar.

Sit-up-To measure abdominal strength and endurance

The total no of repetitions of sit-ups is noted in one minute only

Shuttle run- To measure agility and speed. The subject starts race behind the other line. The best of two trials will be noted.

Standing Long jump - To measure power.

The best distance will be taken out of three trials

50m Dash-To measure speed

The subject is advised to run 50 yards and the time is recorded nearest to 10th of a second

600 yard run/walk- To measure endurance

The subject is advised to run/walk 600 yards and the time is recorded in minutes and second

Q-24-Physiological factors determining endurance and strength

Endurance-

Slow twitch muscle fibre

Dehydration

Blood volume

Cardiac output

Pulmonary Diffusion

Lactic acid tolerance

Muscle composition

Aerobic capacity

Strength

Gender

Muscle size

Lean body mass

Energy Level

Nerve Impulses

Age

Q-25 Types of Personality

Type-A- They have high sense of time and always try to complete their task in time. They are always found busy. They can be easily aroused to anger.

Type-B- They are extrovert in nature. They complete their work steadily. They enjoy their achievement and always focus on game not on winning or losing. They try to do at the last movement.

Type-C- They are not so assertive and always suppress their emotions and desires. They are very susceptible to depression as compared to other types of personalities. They are introvert in nature. They try to spend maximum time on finding about how the thing work.

Type-D- They resist any form of change and prefer the monotony of routine. They are not adventuresome and avoid responsibility. They are always having a fear of rejection. The individuals are the depressed ones; they live a very poor and short span of life.

Q-26 Impact of high altitude training

Training at high altitude produce additional RBC

At high altitude the reduced air pressure, O₂ diffuses into RWC slowly.

To remunerate decrease in O₂, one of the body hormones, starts the production of more RBC to help in oxygen delivery to the muscles.

Increase in lungs size

More capillarization takes place

Lactic acid tolerance in the body increases

Increase in erythropoietin hormone