

COMMON PRE BOARD EXAM 2017-18
MARKING SCHEME CLASS XII
PHYSICAL EDUCATION (SET 3)

1. Sugar is a main source of energy. If sugar free products are consumed without consultation, it may lead to reduction of extreme calories inside the body and may result in weakness. (1 MARK)

2. **Intramural:** the activities which are organized within the walls (or) within the campus by an institution/school and the students of the same school participate in them
Extramural: The activities which are organized by an institution/school and the students of two or more schools participate in them. (1 MARK)

3. Physical disability means the limitations on a person's physical functioning. This may affect the person's movement, mobility, strength, speed and so on. (1 MARK)

4. Common postural deformities are (1 MARK)
 - Spinal Curvature
 - a.i. Kyphosis
 - a.ii. Lordosis
 - a.iii. Scoliosis
 - Flat foot
 - Knock knee
 - Bow legs
 - Round shoulders.

5. Any asana in which knees are folded such as vajrasana, gomukhasana, matsyasana etc. (1 MARK)

6. Cardiac output is the amount of blood pumped from the heart per minute
Cardiac output= Heart Rate \times Stroke Volume (1 MARK)

7. Sports medicine is a branch of sports science which deals with athletes or sportsmen in preserving their health increasing physical performance and preventing diseases.

-LA CAVA

(1 MARK)

8. Kraus Weber test shows flexibility and strength of lower abdomen muscles.

MARK)

(1

9. Transverse fracture- fracture in which bone is completely broken in a manner that is perpendicular to the way the bone runs.

Oblique fracture- fracture in which bone is broken diagonally. (0.5+0.5=1 MARK)

10. Role of quadriceps muscles in running- extend legs and flexes thigh. (1 MARK)

11. PNF- it is a method of stretching muscles to maximize flexibility often performed with partner or trainer and that involves a series of contraction and relaxation with enforced stretching during the relaxation phase. (1 MARK)

12. Role of any 3 committees-

(1X3=3 MARK)

- Announcement committee- making necessary announcements.
- Fooding and refreshment committee- serving meals and refreshments, finalize menu and making arrangement for the requirement of that menu.
- Technical committee- it consists of technical official like referee, umpire, judges, scorekeeper etc. makes fixture, appoints referee and umpire for the game, check the technical aspects of the game and give judgement for any dispute or protest.
- Ceremony committee- responsible for opening and closing ceremony, arrangements of cultural programmes, trophies, medals and decoration of sports arena.
- First aid committee- responsible for taking care of any injury that happens during the event.

- Ground maintenance committee- responsible for marking of the ground and its maintenance.

13. Role of fats (any three)

(1X3=3 MARK)

- Source of energy- concentrated source, produce more than double energy than carbohydrates.
- Insulation- acts as an insulating layer under the skin which does not allow body heat to escape and maintain body temperature.
- Protection- acts as a shock absorbing cushion.
- Structure of cell membrane- forms a part of phospholipids of cell membrane.

14. Weight training: It is type of exercise that builds the strength of specific and targeted muscles by lifting weight equipments like barbells and dumbbells.

- Increases the strength of the targeted muscles by increasing the mass and also raises the level of endurance.
- Increases in bone density.
- Controlling weight-Since it increases muscle mass the body's resting metabolism is also heightened this makes the body burn more calories. Therefore, weight training gets rid of excess calories and controls weight.
- Improves mental state- It makes the individual physically fit, active and healthy. Therefore, the person become self confident and high self-esteem and can deal with anxiety and stress more expertly.

(1+2=3 MARK)

15. Brief the following

(1X3=3 MARK)

- Family Environment
- School
- Culture

16. (i) Type 2 diabetes- appears after the age of 40 in which cells fails to respond to insulin properly.

(ii) People having severe back problems, neck problems, hernia and pregnant women should avoid bhujangasana.

(iii) Sympathy or any relevant answer .

(1X3=3 MARK)

17. Barrow's three item motor ability test – purpose and procedure of following test item (1X3=3 MARK)

- Standing broad jump
- Zigzag run
- Medicine ball put

18. There are six types of bone injuries

- I. **Simple Fracture:** A broken bone in a single part of the body in the absence of a wound is called simple fracture.
- II. **Compound Fracture:** This type of fracture is accompanied by damage to the muscles and skin and the bone usually protrudes out of the torn skin.
- III. **Complicated Fracture:** Along with the bones, other parts of body such as tissues, nerves and arteries also get damaged
- IV. **Greenstick Fracture:** Bending of bones or slight crack is called greenstick fracture.
- V. **Comminuted Fracture:** It is the type of fracture in which bone breaks into three or more pieces.
- VI. **Impacted Fracture:** In this type of fracture, shattered or fragmented pieces of a broken bone enter into another bone under the influence of an impact.

($\frac{1}{2} \times 6 = 3$ MARK)

19. Effect of exercise on muscular system

- I. Change in Anatomy of the muscles
- II. Increase in number of capillaries
- III. Improving the strength of connective tissues
- IV. Improving Efficiency
- V. Delaying fatigue
- VI. Activation of non-functioning fibres
- VII. Correct body posture
- VIII. Improving of reaction time

Explain any one of above points

($\frac{1}{4} \times 8 = 2 + 1 = 3$ MARK)

20. Fixture of 11 Teams on knock-out basis

Total number of teams	=11
Number of teams in upper half	= $N+1 \div 2 = 11+1 \div 2 = 12 \div 2 = 6$ teams
Number of teams in lower half	= $N - 1 \div 2 = 11-1 \div 2 = 10 \div 2 = 5$ teams
Total number of byes	= $16-11=5$ byes
Number of byes in Upper half	= $NB-1 \div 2 = 5-1 \div 2 = 4 \div 2 = 2$

Number of byes in lower half = $NB+1 \div 2 = 5+1 \div 2 = 6 \div 2 = 3$
 Number of rounds = $2 \times 2 \times 2 \times 2 = 4$ rounds
 Number of matches = $N-1 = 11-1 = 10$

Advantages of League Tournament.

- Only strong or deserving team gets victory in the tournament.
- Every team gets full opportunity to show its efficiency or performance
- Sports and games can be more popular through league tournament owing to maximum number of matches.
- Enough opportunities are available to the players to improve their performance.
- The spectators also get good opportunity to watch the game for many days.

Disadvantages of League Tournament

- It requires more time
- It costs more
- The teams coming from far, generally face more problems because such tournaments waste their time and money
- It requires more arrangement for sports officials and teams.
- Most of teams become psychologically down due to their defeat again and again.

$$(2+1\frac{1}{2}+1\frac{1}{2}=5)$$

MARK)

21. Macro nutrients are

- i. Carbohydrates
- ii. Proteins
- iii. Fats
- iv. Water

Role of Nutrition

- a. Pre-competition:
 - a. Carbohydrate loading before competition helps in storing of glycogen which helps in extra energy during competitions.
 - b. Sufficient intake of fluid before competitions helps in prevention of dehydration.
- b. During competition:
 - a. Small amount of carbohydrates at regular interval helps in maintain blood sugar level and reduces fatigue.
 - b. Frequent intake of fluids is beneficial to stay hydrated during high intensity level activities.
- c. Post competition:
 - a. Initial intake of carbohydrate after competitions help in restoring glycogen.
 - b. To enhance muscle recovery, protein diet after few hours of competition is helpful.

- c. A balanced diet containing of macro and micro nutrients post competitions helps in faster recovery and reduced chances of injury. (4×1¼=5)

22. PRICE

P: Protection is meant to prevent further injury and partially immobilizing the injured area by using a sling, splint, or brace may also be a means of protection.

R: Rest is important to allow for healing. However, many sports medicine specialists use the term relative rest meaning rest that allows for healing, but is not so restrictive that recovery is compromised or slowed. A person should avoid activities that stress the injured area to the point of pain or that may slow or prevent healing.

I: Ice refers to the use of cold treatments, also known as cryotherapy, to treat acute injuries. Ice is recommended with the intent to minimize and reduce swelling as well as to decrease pain, although skin sensitivity or allergy to cold exposure may occur. If these symptoms occur the ice treatments should be discontinued.

C: Compression is the use a compression wrap, such as an elastic bandage, to apply an external force to the injured tissue. This compression minimizes swelling and provides mild support.

E: Elevation is recommended to help reduce the pooling of fluid in the injured extremity or joint. Controlling swelling can help decrease pain and may limit the loss of range of motion, possibly speeding up recovery time. (1×5=5 MARK)

23. Rikli and Jones senior citizens fitness test

- i. **Chair Stand test-** to measure leg strength and endurance

Procedure- the subject is advised to sit on the chair with arms crossed around the wrists and hands are kept close to the chest. After this, the subject stands completely and then reaches again the same sitting position. This activity is repeated for 30 seconds.

- ii. **Arm Curl test-** to measure upper body strength.

Procedure- the subject sits on the chair keeping the back straight and holds weight in strong hand. The subject performs arm curls in 30 seconds.

- iii. **Back scratch test-** to measure range of motion of shoulder

Procedure- the subject is advised to stand initially. After this, one hand is placed behind the head and other arm is bent behind the back. Test administrator helps in guiding the subject about the alignment of the fingertips. If the tip of both index fingers touches, then the score is awarded zero. In case it is no, touching the gap is measured and this is awarded as negative score. While overlapping distance is given as positive score. Reading is taken twice and the best score is awarded.

- iv. **Eight foot up and go test-** to measure speed, agility and balance while moving

Procedure- a cone is placed 8 feet away from the chair which is placed away from the wall. On the command go the subject starts before sitting on the chair. The subject is advised to walk briskly and turn around the cone and again sits on the chair. The time is measured for this whole activity. The two trails are conducted. The best trail is counted for scoring.

v. **Six minute walk test-** to measure aerobic fitness

Procedure-the walking course is marked in 50 yards (45.72 meters) rectangular area dimensions 45X5 yards.

(1×5=5MARK)

24. Differences in brief between male and female should be written under the following heads: (1X5=5MARKS)

- Cardiovascular system- size of heart, stroke volume, blood pressure, oxygen carrying capacity.
- Respiratory system
- Muscular system
- Biological activities
- Reaction time
- Difference in metabolic process.

25. Detailed description of the following personality traits (1X5=5MARKS)

- Openness: curious, imaginative, creative, original
- Conscientiousness: thoughtful, disciplined, focused, committed, strong impulse control and dependable.
- Extraversion: talkative, enjoy the attention of others
- Agreeable: tolerant, kind, compassionate, helpful, warm and trusting of others.
- Neuroticism: emotionally unstable, negative thinkers.

26. Circuit training- this method should be written in the following way

(1X5=5MARKS)

- Introduction- a method to develop multiple fitness components, using multiple stations in a form of circuit.
- Place of training- any indoor or gymnasium hall.
- Exercises selected at different station- based on need and ability of training

- Procedure-exercise from low to high intensity, exercise should include almost all muscles to be used in required activity, repetition at different stations, total number of repetition of the whole circuit.
- Advantage or impact of circuit training.