

PRACTICE QUESTION PAPER-2 (SOLUTION)

SECTION – A

1	b	$\frac{nb + 1}{2}$
2	c	Technical committee
3	b	Sexual maturity
4	b	Purging type
5.	c	Anuloma-viloma
6	d	Mandukasana
7	b	Both (A) and (R) are true, but (R) is not the correct explanation of (A).
8.	a	Vitamin - E
9	a	Micro minerals
10	b	Lower body flexibility
11	d	> 40
12	c	Aerobic System
13	c	Transverse fracture
14	d	All of the above
15	d	Ice Skating
16	c	Hostile aggression
17	b	C A D B
18	b	D C B A

SECTION – B

19. The role of logistic committee during sports event

While the event is in progress, the Logistics Committee is responsible for the conduct of the Opening and Closing Ceremonies, checking registration, distribution of refreshment, management of spectators, handing over of medals and certificates, transportation of players/participants from place of stay to the field and back.

20. Special Olympics

Special Olympic is the world's largest inclusive sports organization for children as well as adults. It is a global movement that accepts and welcomes every single individual regardless of their abilities and disabilities. With their unified sports partners in more than 172 countries, the movement is creating a better world order with equality, joy and better fitness.

Paralympic

The word "Paralympic" derives from the Greek preposition "para" (beside or alongside) and the word "Olympic". Its meaning is that Paralympics are the parallel Games to the Olympics and illustrates how the two movements exists side-by-side.

21. Macro Nutrients : Macro nutrients constitute the majority of individuals' diet. They are taken in large amount. They supply energy and are needed for growth, maintenance and to perform activities.

Micro Nutrients: They are required in very small amounts. These are extremely significant for normal functioning of the body. The main function of these nutrients is to enable various chemical reactions to occur in the body

22. Physiological factors determining speed

1. Mobility of the Nervous System
2. Explosive Strength
3. Muscle Composition
4. Flexibility
5. Bio-chemical Reserve and Metabolic Power (Any four)

23. 1. Hostile Aggression : In hostile aggression, the main aim is to cause injury to other sportsperson. In simple words, hostile aggression is when the primary aim is to cause physical harm or injury to your opponents.

2. Assertive Aggression or Behavior : Assertive behavior is different types of aggression/ aggressive behavior. This is defined as behavior that involves the use of legitimate physical or verbal force to achieve one's purpose. In assertive aggression or assertive behavior, the intention is to establish dominance rather than to harm the opponent.

24. Examples of equilibrium in sport

1. Two people balancing on a see-saw.
 2. In every sport, the athletes maintain stability by lowering the centre of gravity by bending their knees.
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3. Boxers can lose balance if they shift their weight on heels because the centre of gravity must fall within the line of base of support for greater stability.
4. Dynamic equilibrium is required by a tennis player to change her/his position after hitting a shot. (Or any other relevant example)

SECTION – C

25. No. of matches = $\frac{N(N-1)}{2}$

$$= \frac{5(5-1)}{2} = 10 \text{ matches}$$

Fixture of 5 teams (Staircase method)

1 – 2				
1 – 3	2 – 3			
1 – 4	2 – 4	3 – 4		
1 – 5	2 – 5	3 – 5	4 – 5	

26. 1. **Role of School :** – School gives a structured programme to a child or a group where co-scholastic activities and sports are a part of the regular routine. All schools must have trained APE teachers to give a specially-abled child access in games where movements are involved in a fun way for her/his holistic development. Here, a teacher or a coach helps a child to transit towards competitive sports under different organizations such as Special Olympics, Paralympics etc. The school should take care to provide infrastructure that is compatible with the needs of CWSN e.g., a ramp along with stairs. Schools must run sensitization programmes so that CWSN are recognised for their efforts and organise intramural and extramural sports competitions or carnivals.
2. **Role of Organisations :** There are few organizations working at the grass root level to promote adapted sports. These organizations are responsible for training teachers and coaches for teaching, coaching and organizing sports events at Zonal, District, State, National and International levels.

27. Functions of Proteins	Functions of Fats
Proteins build and repair body cells; form part of various enzymes, hormones, and antibodies; Provide energy (4 Kcal/ gm)	Fats provide energy (9kcal/g); carry fat-soluble vitamins; are part of cell membranes, membranes around nerves, hormones, bile (for fat digestion)

28. Chair Sit and Reach Test for Lower Body Flexibility

Procedure : The participant sits on the edge of the chair (kept against a wall for safety purpose). One foot remain flat on the floor while the other leg should be extended remain forward with the knee straight. Heel should be on the floor and ankle should be bent at 90° . Place one hand on the top of the other with tips of the middle fingers even. Instruct the participant to inhale and then as he exhales, reach forward towards the toes by bending at the hip. His back should be straight and head up. Avoid any jerk or bounce and never stretch too much. Keep the knee straight and hold the reach for 2 seconds. The distance is measured between the tip of the finger tips and the toes. If the finger tips touch the toes then the score is zero. If they do not touch, measure the distance between the fingers and the toes (negative score). If they overlap, measure by how much (positive score).

Scoring: The score is noted down to the nearest 1/2 inches or 1 cm as the distance reached either a negative or positive score.

29. Advantageous or disadvantageous of friction in the Field of Games and Sports are:

Friction is usually called a necessary evil. It means that it is essential in games and sports. Without friction, we cannot give a better performance in the field of sports. For example, athletes (racers and jumpers) use spikes and football players use studs to have appropriate friction while they run fast. Without friction they are unable to run fast. Even gymnasts also use lime on their palms to perform on horizontal bar, uneven bars and roman rings to have friction. Even walking may be difficult due to less friction. The weightlifters also use lime on palms before holding the bars in jerk and snatch. In badminton, the players are usually seen to rub their soles of shoes with lime before going to the wooden court. In fact, in sports field, there are a lot of examples where friction is advantageous.

On the other hand, friction is disadvantageous in some of the sports and games, such as in cycling, there should not be more friction between road and the tyres of cycle. If there is more friction there will be more wastage of energy of the rider. The tyres must be fully inflated to reduce the force of friction in cycling. In roller skating, there should be less friction for better performance.

Consequently, it can be said it is advantageous in some of the sports but in other sports more force of friction is disadvantageous. Up to some extent, some force of friction is required in various sports. The requirement may differ or vary from sports to sports.

30. Mental Imagery

Mental imagery involves the athlete imagining themselves in an environment performing a specific activity using their senses (sight, hear, feel and smell). The images should have the athlete performing successfully and feeling satisfied with their performance.

Mental imagery helps in the performance

Using the mind, an athlete can call up these images repeatedly, enhancing the skill through repetition or rehearsal, similar to physical practice. With mental rehearsal, minds and bodies become trained actually to perform the skills and performances imagined.

SECTION – D

31. a. Formula for no. of matches is

$$\begin{aligned} &= \frac{N(N-1)}{2} \\ &= \frac{12(12-1)}{2} = \frac{132}{2} = 66 \text{ matches} \end{aligned}$$

- b. Advantages of league tournament:

1. Only strong or deserving teams get victory in the tournament.
2. Every team gets full opportunity to show its efficiency or performance.
3. Sports and games can be made more popular through league tournament owing to maximum number of matches.
4. In such type of tournament, the sports official does not face any difficulty while selecting the appropriate player of team. They have enough time to watch the efficiency of a player.
5. Appropriate opportunities are available to the players to improve their performance.
6. The spectators also get good opportunity to watch many games.

- c. Mr. Burger was the first person, who imagined about the league tournament and owing to that, it is also called 'Burger System'.

- d. League tournament is also called 'round robin' tournament. According to this tournament, every team play with every other team once, if it is a single league tournament. If it is a double league tournament, each team play with every other team twice.

Types of league tournament

1. Single League tournament
2. Double League tournament

32. a. Hard tissue
- b. Impacted fracture
- c. Greenstick fracture
- d. Comminuted fracture: When the bone breaks into two or more pieces, it is called comminuted fracture. Such types of fracture are possible in cycle race or motorcycle races.
33. a. On the basis of sociability character, Carl G. Jung's classified personality as introvert, extrovert and ambivert.
- b. Neuroticism
- c. Ambivert
- d. Conscientiousness: persons who have degree of conscientiousness are reliable and prompt. Such persons remain organized, systematic, laborious and complete in all respects.
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SECTION – E

34. **Anorexia Nervosa** : This is a psycho-physical condition. It is characterised by lack of appetite and is associated with the subconscious desire to remain slim. Such a feeling usually develops in young women or adolescent female in order to retain their body figure and image. As a result of this, there is a refusal to maintain normal body weight from their fear of becoming obese and spoiling their figure.

Causes of Anorexia : Anorexia is an eating disorder that is caused by a combination of several psychological, social and biological factors. Several other factors such as family environment, personality traits and low self-esteem may also lead to anorexia. The factors causing anorexia are as follows:

1. Psychological factors
2. Social factors
3. Biological factors

Symptoms of Anorexia

1. **Significant underweight** : The individual having anorexia will not be able to maintain BMI and will lose weight significantly.
2. **Anaemia** : Anorexia may be one of the leading causes of anaemia. This leads to tiredness in an individual.
3. **Low pulse rate** : The individual having anorexia will have low heart rate.
4. **Low blood pressure** : Anorexia may lead to low blood pressure.
5. **Denial of illness** : An individual suffering from anorexia has the tendency to deny the facts related to the disorder.
6. **Self-induced vomiting** : An individual suffering from anorexia will go to the wash room frequently and induce vomit, especially after a meal.

Prevention and Management of Anorexia : The basic preventive measures used in anorexia are as follows:

1. People should be encouraged to inculcate a positive self-esteem and body image.
 2. Body sizes should not be criticized and students should not be taught to be preoccupied with their weight.
 3. Students should have knowledge of genetic factors that determine body weight. They should be made to understand that being thin is not the most important means to be popular, beautiful or successful.
 4. They should have a healthy approach towards their eating and exercising habits and should avoid the company of those people who are obsessed about their body weight.
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35. Asanas which cure Hypertension are:

Hypertension	
Tadasana	Sitlipranayam
Katichakransan	Uttanpadasana
Shavasana	Gomukhasana
Saral Matsyasana	Ardha Halasana
Bhujangasana	Makarasana
Vakrasana	Nadi-shodhanapranayam
UttanMandukasana	

Procedure of Makarasana

Lie down on the floor on your stomach with your hands folded under the head. Place the right palm over the left palm on the ground and place the head over the right palm in a relaxed way and close your eyes. Stretch the legs as far as possible. The toes should point outwards. Relax the whole body. Breathe normally and slowly. Feel the whole body touching the ground and the deep relaxation in all your muscles. Relax in this posture for few minutes.



Benefits of Makarasana

1. Deep relaxation to the shoulders and the spine.
 2. Reduce Waist pain.
 3. Helps in Slipped disc.
 4. Asthmatic and patients with lung disorders.
 5. Relief for arthritis patients.
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36.

Nutritive Components of Diet	Non-Nutritive Components of Diet
1. Carbohydrates 2. Proteins 3. Fats 4. Minerals 5. Vitamins	1. Fiber or Roughage 2. Water 3. Color Compounds 4. Flavor Compounds 5. Plant Compounds 6. Phytochemicals

Non-Nutritive Components of Diet

Nonnutritive components are compounds absorbed from the food but which do not provide energy in the form of calories. They can be either useful or harmful to our body. Some of the non-nutritive components are as:

1. **Fiber or Roughage** : It is undigested part of the food. It cannot be digested by the human intestinal tract. It consists of water and improves intestinal functions by adding bulk to food. It helps the individual to satisfy the appetite. It helps to correct the disorders of large intestine. Roughage or fiber can be divided into two categories

(a) Soluble: It can dissolve in water. It reduces blood- sugar fluctuation and lower cholesterols.

(b) Insoluble: It cannot be dissolved in water. It is a good stool softener.

Usually 30 grams of fibers are recommended for adults per day. Both type of roughage or fibers are equally significant for human beings. Fiber is helpful in decreasing the risk of heart disease and preventing certain types of cancer.

Source : Wheat, fresh food, root, vegetable, oats, connective tissues of meat & fish are very good sources of roughage.

2. **Water** : Water is also an essential component of diet. Even blood comprises 90% of water. With the help of water through blood, the nutrients are carried to various cells of the body. It is also significant in the excretion of waste products. It also regulates the body temperature. Our body loses approximately 2% of our body weight as water per day. We recoup this loss of water by drinking water and by intake of food substances. It also functions as a lubricant, keeps the skin moist and protects the body from shock. Generally about 20% of water intake comes from food and remaining intake comes from drinking water. It is excreted from the body in various forms such as urine, faeces, sweating and water vapors in the exhaled breath

3. **Color Compounds** : The food or diet is prepared more appetizing and attractive to see by the wide reflection of colors made possible through pigments. Natural pigments are found in fruits and vegetables. The colors from animal products and grains are less bright. There are various colors of fruits and vegetables such as red, orange, yellow, blue and cream.
4. **Flavor Compounds** : The flavors are derived from both nutritive and non-nutritive components of food. Sometimes it becomes very difficult to know the source of a specific flavor. An acidic food provides sour taste while alkaline one provides a bitter.
5. **Plant Compounds** : In addition to color compounds and flavor compounds, there are some plants which contain other non-nutritive substances. When these substances are ingested they may have beneficial or harmful effects. There are many compounds that inhibit cancer. There are also numbers of harmful substances in plants which have harmful effects if ingested in excess. Caffeine is such example. If it is taken in excess quantity it may increase heart rate, secretion of stomach acid and urination.
6. **Phytochemicals** : Phytochemicals are found in fruits, vegetables, grains and other plants. They act as antioxidants and protect cells from damage that could lead to cancer. By eating more colorful vegetable, fruits and other plant foods, the risk of cancer can be reduced because these foods have certain phytochemicals like Beta-carotene and other carotenoids.

(Explain any two)

37. Effects of Exercises on Respiratory System

Regular exercises have following effects on respiratory system:

1. **Increase in Tidal Air Capacity:** Tidal air is the amount of air that flows in and out of the lungs in each quit respiratory movement. It has been noted that this tidal air capacity can be increased.
 2. **Decrease in Rate of Respiration:** It is certain than when a beginner starts exercise, his rate of respiration increases. But when the same individual performs exercises daily, his rate of srespiration decreases in comparison to the beginning stage at rest.
 3. **Strengthen Diaphragm and Muscles:** Regular exercise strengthens the diaphragm and the muscles of the chest.
 4. **Avoids Second Wind:** For a beginner, the stage of second wind is, indeed, a crucial stage. But for a regular exerciser, it is hardly felt. Sometimes, a well-experienced athlete does not feel it in his course of activity
 5. **Unused Alveolus Become Active:** Regular exercise activates the unused alveolus, because much amount of O_2 is required in vigorous and prolonged exercise of daily routine. The passive alveolus becomes active.
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6. **Increase in Endurance:** If exercise is performed regularly and for a longer period, it increases endurance. An activity can be done for a longer period without taking any rest. Those who do not perform exercise, have less endurance. They cannot continue exercise for a long duration. Hence, it can be alluded that exercise increases the endurance of an individual.
7. **Increase in Residual Air Volume:** It is that amount of air, which is left in the lungs after exhalation. If an individual performs regular exercise, his residual air capacity increases in comparison to an individual who does not perform regular exercise.
8. **Increase in Size of Lungs and Chest:** When a person performs exercises regularly, he requires more amount of oxygen. He inhales more amount of air during exercise. Consequently, his lungs and chest are exercised. After some period, the size of his lungs and chest increases.
9. **Prevention from diseases:** If we perform regular exercise, we will have to inhale and exhale more air speedily. By doing so, the waste products will never stick to our lungs. These products will come out automatically and the lungs will not be damaged. By doing exercise we can prevent various diseases.
10. **Increase in Vital Air Capacity :** It is the amount of air which an individual can inhale and exhale with maximum effort. Its capacity varies from 3500cc to 4500cc in a normal adult. It is the sum of tidal volume, inspiratory reserve volume and expiratory reserve volume. Due to regular exercise its capacity increases up to 5500cc.

(Explain any 5 points)
