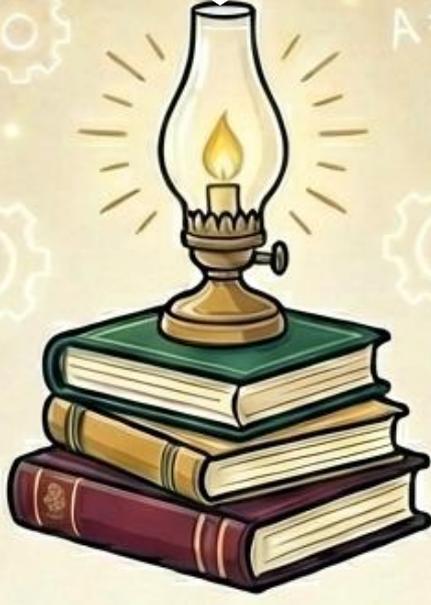




$$A = \frac{m}{(m^2 + c)^2}$$



# NIOS PYQ's SOLUTIONS

$$fa = bc^2$$

$$\sqrt{h-x^2}$$

PREVIOUS YEARS' QUESTIONS & ANSWERS



APRIL-2025

Your Path to Success

## SECTION - A

**Q1. In which period two cults-Nath cult and Bhakti cult were famous?**

- (A) Smriti period
- (B) Medieval period
- (C) Epic period
- (D) Sutra period

**Answer -** (B) Medieval period

**Q2. Which exercises are performed before any workout with a purpose of physiological and psychological preparation?**

- (A) Cooling down
- (B) Anaerobic exercise
- (C) Warming up
- (D) Pilates

**Answer -** (C) Warming up

**Q3. Increase in size of muscles due to increase in size of muscle cells is known as**

- (A) hypertrophy
- (B) hyperactive
- (C) hypertension
- (D) hyperthermia

**Answer -** (A) hypertrophy

**Q4. Which one of the following is not the domain of learning?**

- (A) Cognitive
- (B) Affective
- (C) Physical fitness



**(D) Psychomotor**

**Answer** - (C) Physical fitness

**Q5. Which principle of sports training focuses on the ratio of rest and recovery between exercises?**

**(A) Principle of balance**

**(B) Principle of overload**

**(C) Principle of reversibility**

**(D) Principle of recovery**

**Answer** - (D) Principle of recovery

**Q6. Seeding means :**

**(A) exemption from playing in initial round due to draws**

**(B) exemption from playing in initial round due to last year winners/ runners of the tournament**

**(C) player/team enters straight away to quarter finals**

**(D) loser team gets another chance to play**

**Answer** - (B) exemption from playing in initial round due to last year winners/ runners of the tournament

**Q7. What is the aim of school health program?**

**(A) To promote mid-day meal**

**(B) To promote first aid**

**(C) To promote health care of child**

**(D) To reduce disability**

**Answer** - (C) To promote health care of child



**Q8. Who states that "An effective school health program can be one of the most cost-effective investments a nation can make to simultaneously improve education and health"?**

- (A) World Health Organization**
- (B) UNESCO**
- (C) Pan American Health Organization**
- (D) World Bank**

**Answer - (D) World Bank**

**Q9. \_\_\_\_\_ is an essential part of school health services, in order to raise the nutritional level of children in schools.**

- (A) Medical checkup**
- (B) First aid and emergency care**
- (C) Prevention of communicable diseases**
- (D) Mid-day meal**

**Answer - (D) Mid-day meal**

**Q10. Which program was executed by the Govt. of India to ensure overall hygiene of people in the country?**

- (A) Deworming Program**
- (B) Swachh Bharat Abhiyan**
- (C) Ayushman Bharat**
- (D) National Health Mission**

**Answer - (B) Swachh Bharat Abhiyan**

**Q11. \_\_\_\_\_ exercise is performed when the constant supply of oxygen is not present.**

- (A) Anaerobic**
- (B) Aerobic**



(C) Isometric

(D) Isokinetic

**Answer -** (A) Anaerobic

**Q12. The term used for the union of sun or pingala or moon or Ida is known as**

(A) Chakra

(B) Hatha Yoga

(C) Raj Yoga

(D) Ashtanga Yoga

**Answer -** (B) Hatha Yoga

**Q13. Vaman Dhauti is commonly known as**

(A) Danda Dhauti

(B) Shankh Prakshalan

(C) Kunjal

(D) Vahnisara Dhauti

**Answer -** (C) Kunjal

**Q14. Which component of pranayama means complete exhaling?**

(A) Poorak

(B) Antar kumbhaka

(C) Bahir kumbhaka

(D) Rechak

**Answer -** (D) Rechak

**Q15. In which mudra the face appears like a crow?**

(A) Kaki mudra



(B) Shambhavi mudra

(C) Ashwini mudra

(D) Varun mudra

**Answer** - (A) Kaki mudra

**Q16. Jalandhar bandh is also known as \_\_\_\_\_ and Uddiyan bandh means \_\_\_\_\_.**

**Answer** - Throat lock; pulling the abdomen inward/upward

**Q17. Overstretching and tearing of ligaments is known as \_\_\_\_\_ and overstretching and tearing of muscles is known as \_\_\_\_\_.**

**Answer** - Sprain; Strain.

**Q18. The National Discipline Scheme came into existence in the year \_\_\_\_\_ and in the year \_\_\_\_\_ after the Indo-China war the Govt. of India decided to consider a scheme of compulsory physical education in schools.**

**Answer** - 1954; 1963.

**Q19. \_\_\_\_\_ and \_\_\_\_\_ are the activities of eating.**

**Answer** - Providing energy; Body building

OR

**\_\_\_\_\_ and \_\_\_\_\_ are the specialities of school health service.**

**Answer** - Disease prevention; Health promotion

**Q20. Match the following:**

(a) Fat soluble vitamin

(i) Amino acid

(b) Water soluble vitamin

(ii) Vitamin A, D, E, K

(c) Mineral salt

(iii) Vitamin B, C (d) Protein

(d) Protein

(iv) Iodine, copper

**Answer** - (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)



**Q21. Three main aspects of school health program are school health services, \_\_\_\_\_ and \_\_\_\_\_.**

**Answer -** Healthful school environment; Health education.

**Q22. Mark the following statements as true or false:**

**(a) Physical activity is a necessary step to develop the proper function and growth of human body.**

**Answer -** True

**(b) Physical education and sports are not related with the overall development of personality.**

**Answer -** False.

**Q23. College of Physical Education, Madras was founded in the year \_\_\_\_\_ and Govt. College of Physical Education, Hyderabad was established in the year \_\_\_\_\_.**

**Answer -** 1920; 1931.

**Q24. The energy yielded from per gram carbohydrate is \_\_\_\_\_ calories and per gram fat is \_\_\_\_\_ calories.**

**Answer -** 4 calories; 9 calories.

**Q25. Match the following:**

- |                              |   |
|------------------------------|---|
| <b>(a) Physical changes</b>  | <b>(i) Thinking becomes abstract</b>                  |
| <b>(b) Emotional changes</b> | <b>(ii) Change their relationship with family</b>     |
| <b>(c) Social changes</b>    | <b>(iii) Instable and intense feelings</b>            |
| <b>(d) Cognitive changes</b> | <b>(iv) Achieves maximum limit in physical growth</b> |

**Answer –**

(a) Physical change → (iv) Achieves maximum limit in physical growth

(b) Emotional change → (iii) Instable and intense feelings

(c) Social change → (ii) Change their relationship with family

(d) Cognitive change → (i) Thinking becomes abstract



**Q26. What is the method of Tratak Kriya?**

**Answer -** Trataka is a purification process. For its procedure, sit in a comfortable posture in a quiet room. Place a burning candle or a black dot two feet away at your eye level. Focus on it without blinking until tears come to the eyes. After this, close the eyes and rest.

**OR**

**Write in brief about Dhauti.**

**Answer -** Dhauti is an important practice of Shatkarma performed for the purification of the upper digestive tract. In this, Vaman Dhauti (vomiting after drinking water) and Vastra Dhauti (swallowing a cloth strip) are prominent. It balances the Pitta dosha and improves digestion by removing impurities from the stomach.

**Q27. What is the principle of overload?**

**Answer -** According to this principle of sports training, if an athlete's physical capacity is to be increased, it is necessary to put more workload on the body than normal. When the body becomes accustomed to a certain level of load, the load must be gradually increased further for progress.

**OR**

**What is Bye?**

**Answer -** In a knock-out tournament, when the number of participating teams is not a power of 2 (2, 4, 8, 16, etc.), some teams are given a 'Bye'. A team receiving a bye does not have to play in the first round and directly enters the second round.

**Q28. What are the objectives of extramural competition?**

**Answer -** Its main objectives are to give students the opportunity to compete with players from other institutions, to raise the standard of the game, to learn new techniques, and to develop a sense of friendship and brotherhood between different schools. It prepares players for large-scale performances.

**Q29. Define tournament and fixture.**

**Answer - Tournament:** This is a series of games in which a winning team is ultimately chosen. In this, the losing team either gets eliminated or gets another chance.



**Fixture:** This is a systematic schedule of matches that decides which team will play against whom, at what time, and on which ground.

**Q30. What do you know about macronutrients?**

**Answer -** Macronutrients are dietary components that our body requires in large quantities. They include carbohydrates for energy, protein for cell repair, and fat for energy storage. These elements play a major role in providing energy and growth to the body.

OR

**What is the concept of 'Mitahar'?**

**Answer -** According to Yoga, Mitahara means 'limited and balanced diet'. In this, a person should fill two parts of the stomach with food, one part with water, and leave the fourth part empty for air. The diet should be pure, easily digestible, and pleasing to the mind.

**Q31. Differentiate between isometric and isotonic contractions.**

**Answer -**

Basis	Isometric	Isotonic
Muscle Length	No direct change is visible in the length of muscles.	Muscle length changes (becomes shorter or longer).
Joint Movement	There is no movement in the joint.	Distinct movement is visible in the joint.
Example	Pushing a wall.	Exercising with dumbbells or running.

**Q32. Briefly explain motivation.**

**Answer -** Motivation is that internal or external force that inspires and stimulates an individual to act towards a certain goal. In sports, it is of two types: internal (for self-happiness) and external (for rewards or trophies). It is the main basis for performance improvement.

OR

**Write a short note on 'self-talk'.**

**Answer -** Self-talk is the internal dialogue an athlete has with themselves during a competition. It can be positive (such as "I can do this") or instructional. It is considered a very effective technique for increasing an athlete's confidence, reducing stress, and maintaining focus.



**Q33. What is the philosophy of Ashtanga yoga?**

**Answer** - According to Maharishi Patanjali, there are eight limbs of yoga that lead a person toward physical, mental, and spiritual perfection. These are: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, and Samadhi. Following these results in the cessation of the modifications of the mind and the destruction of impurities.

**OR**

**Write in brief about 'Mantra chanting'.**

**Answer** - Mantra Japa means repeating a sacred sound or word. It is an effective means of calming the mind and focusing. Japa is of three types: Vaikhari (spoken), Upanshu (whispering), and Manasik (mentally). It reduces mental stress.

**Q34. What are the core values of Olympism?**

**Answer** - There are three main values of Olympism:

1. **Excellence:** This is not just about winning, but about giving one's best in sports and life.
2. **Friendship:** Building mutual understanding and peaceful relations among people worldwide through sports.
3. **Respect:** Having respect for oneself, others, the rules, and the environment. These values enhance the spirit of sportsmanship and help in building a better society.

**Q35. What are the effects and benefits of Hatha Yoga?**

**Answer** - Hatha Yoga primarily emphasizes the purification of the body and life force (prana). Its benefits are as follows:

1. **Physical Purification:** Internal organs are cleansed through the practice of Shatkarma.
2. **Balance of Prana:** A balance is established between the Ida and Pingala nadis.
3. **Mental Peace:** It removes the restlessness of the mind and increases concentration.
4. **Kundalini Awakening:** Continuous practice increases the flow of prana (life force) in the Sushumna nadi.



OR

**What is the method of Kapalbhathi?**

**Answer -** Kapalbhathi is a 'frontal brain purification' kriya. Its procedure is as follows:

- Sit straight in any meditative posture (such as Padmasana).
- Take a deep breath.
- Now exhale through the nose with a jerk and simultaneously contract the abdominal muscles inward.
- The process of inhaling should be automatic and slow. Repeat this 20-30 times according to your capacity. It increases lung capacity and brings a glow to the face.

**Q36. Differentiate between aerobic and anaerobic activities with suitable examples from sports.**

**Answer -**

S.No.	Aerobic	Anaerobic
1. Presence of Oxygen	These activities are performed in the presence of oxygen.	These activities are performed in the absence or deficiency of oxygen.
2. Duration and Intensity	These activities are performed for a long time (moderate intensity).	These are performed for a very short time and with high intensity.
3. Effect / Energy Source	This increases heart and lung efficiency.	In these, energy comes from fuel already stored in the muscles (ATP-CP).
4. Example	Marathon running, swimming, long-distance cycling.	100-meter sprint, weightlifting, high jump.

OR

**What are the effects of warm up on body systems?**

**Answer -** The effects of warming up are as follows:

- 1. Increase in temperature:** Body and muscle temperature increases, which improves performance.



2. **Blood circulation:** Heart rate increases, causing oxygen and nutrients to reach the muscles faster.
3. **Flexibility:** Flexibility comes to the joints and muscles, reducing the risk of injury.
4. **Nervous system:** Reaction time improves and mental concentration increases.

**Q37. What are the components of physical fitness? Explain.**

**Answer -** There are five main components of physical fitness:

1. **Strength:** The ability of muscles to act against resistance. This is of two types - static and dynamic.
2. **Speed:** The ability to complete a task in the shortest possible time.
3. **Endurance:** The ability to continue work for a long time even in a state of fatigue.
4. **Flexibility:** The range of motion of joints.
5. **Coordination:** The ability to move effectively by harmonizing different body parts. All these components together make a person efficient and healthy.

**OR**

**Enlist the types of fracture and explain the RICE process for treatment of simple sport injuries.**

**Answer -** Types of Fractures: Simple, Compound, Complicated, and Greenstick fracture.

RICE process: This is adopted for the immediate treatment of sports injuries:

- **Rest:** Immediately rest the affected part so that the injury does not increase.
- **Ice:** Apply ice for 15-20 minutes to reduce swelling and pain.
- **Compression:** Bandage the injured area to prevent swelling.
- **Elevation:** Keep the injured part raised above the level of the heart so that blood does not pool.

**Q38. What are the benefits and contraindications of Sheetkari and Surya Bhedi pranayama? Explain.**

**Answer -** Benefits and precautions of Sheetkari and Suryabhedi pranayamas:

1. Sheetkari: In this, breath is drawn inward by placing the tongue against the palate or between the teeth.



- **Benefits:** It cools the body, quenches thirst, and reduces stress.
  - **Precaution:** Do not do it during a cold, cough, or asthma.
2. **Suryabhedhi:** In this, breath is taken only from the right nostril (Pingala) and released from the left.
- **Benefits:** It increases heat in the body, stimulates digestive fire, and clears the sinuses.
  - **Precaution:** Patients with high blood pressure and heart disease should not practice it.

OR

**What is the importance of Yoga Mudra? Write the method and benefits of Gyan Mudra.**

**Answer -** Mudras direct and balance the flow of energy (prana) within the body. These are extremely important for increasing concentration and mental peace.

**Gyan Mudra Procedure:** Sit in a comfortable posture. Join the tip of the index finger with the tip of the thumb. Keep the other three fingers straight and loose. Keep the palms on the knees facing upwards.

**Benefits:** It increases memory, cures insomnia, and improves concentration by calming the nerves of the brain.





# Thank you!

★ We hope you found this material helpful. We wish you the very best for your examination. ✎

Strive for Excellence – Your Path to Success