SAMPLE QUESTION PAPER

PHYSICAL EDUCATION (048)

SESSION 2021-22(CLASS XII)

TERM II

Max Marks: 35 **Time: 2 hrs**

General instructions:

1. **There are three sections in the Question paper namely Section A, Section B and Section C.**
2. **Section A consists of 9 questions amongst which 7 questions have to be attempted each question carries 2 marks and should have 30-50 words.**
3. **Section B consists of 5 questions amongst which 3 questions have to be attempted each question carries 3 marks and should have 80-100 words.**
4. **Section C consists of 4 questions amongst which 3 questions have to be attempted each question carries 4 marks and should have 100-150 words.**

(SECTION A)

Q1. Explain any two benefits of ardha matsyendrasana. (1+1)

Q2. Define explosive strength with help of example. (1+1)

Q3. Define personality and motivation. (1+1)

Q4. Write the full form of SPD and ASD. (1+1)

Q5.List any four changes happening in the muscular system due to exercising. (0.5*4)

Q6.What is the meaning of the Isotonic method and it is used for developing which ability. (1+1)

Q7.Mention any two symptoms and causes of ADHD. (1+1)

Q8.What is Laceration and how can it be managed? (1+1)

Q9.List down any two strategies to make physical activities accessible for CWSN. (1+1)

(SECTION B)

Q10. List down and briefly explain any four techniques of motivation. {1+(0.5*4)}

Q11.Explain cognitive disability along with its symptoms. (1+2)

Q12.Create a flowchart to explain classification of sports injuries.(1+1+1)

For visually impaired candidates

Explain classification of sports injuries.(1+1+1)

Q13.List down any three asanas used for preventing Asthma and write two benefits of each.(1+2)

Q14.What are the salient features of the Fartlek training method? (1*3)

(SECTION C)

Q15. Explain any three personality types of Big five theory.(1+3)

Q16. Discuss physiological factors determining speed. (1*4)

Q17. Define flexibility and explain methods to develop flexibility.(1+3)

Q18. Briefly explain the administration of Pawanmuktasana long with its contraindications and draw stick diagram.(2+1+1)

For visually impaired candidates

Briefly explain the administration of Pawanmuktasana long with its contraindications (2+2)

PHYSICAL EDUCATION
CLASS - XII
MARKING SCHEME
TERM 2
(2021-2022)

Q.NO	ANSWER	MARKS
1.	Benefits of Ardha Matsyendrasana (Any two) (i) It loses extra fat and makes the body beautiful and strong. (ii) It stimulates the liver, spleen and pancreas. (iii) It is beneficial for the respiratory system. (iv) It strengthens the spinal column and back muscles. (v) It glorifies the face and keeps the menstrual cycle in women in control. (vi) It rejuvenates the nerves around. (vii) It heals back pain, stress, and headache. (viii) It is helpful for people suffering from diabetes.	**(1+1=2)**
2.	**Explosive Strength:** It is the ability to overcome resistance with high speed. It is used in take-off jumping events like long jump, high jump, triple jump, jumping in volleyball for smashing or spiking, jumping for rebound in basketball.	**(1+1=2)**
3.	**PERSONALITY** According to Begge and Hunt, *"Personality refers to the whole behavioral pattern of an individual to the totality of its characteristics."* According to Velentine, *"Personality is the sum-total of inherited and acquired abilities."* According to Guild Ford, *"Personality is an individual's unique pattern of traits."* According to Sigmund Freud, *"Personality is an individual's unique thought, feeling and* behavior that persist over time and different situations." According to Young, *"Personality is the totality of behavior of an individual with a given tendency system interacting with a sequence of situations."* According to R.B. Cattel, *"Personality is that which permits a prediction of what a person will do in a given situation."* On the basis of these definitions, a brief definition would be that, *"Personality is the sum total of inner and outer capabilities of an individual."* **MOTIVATION** According to Sage, *"The drive to strive is called motivation."*	**(1+1=2)**

	According to Crooks and Stein, *"Any condition that might energize and direct our actions" is called motivation.* According to Morgan and King, *"Motivation refers to a state within a person or animal that drives behavior towards some goal."* According to P.T. Yong, *"Motivation is the process of arousing , action, sustaining the* activities in progress, and regulating the patterns of activity." According to Johnson, ***"Motivation is the influence of a general pattern of activities indicating and directing the behavior of the organism."***	
4.	Autism SPECTRUM Disorder (ASD) Sensory PROCESSING Disorder (SPD)	**(1+1=2)**
5.	**Changes happening in the muscular system due to exercising.** **(Any four)** 1. **Change in size and shape of Muscle**: Regular exercise helps in enlarging cells of muscles which in turn helps in changing size and shape of muscles. 2. **Increase in the Strength of Muscles:** A person who does exercise daily has stronger muscles and such muscles work more. These become stronger by getting more nutritious food in the form of oxygen. 3. **Increase in Coordination:** Regular exercise increases coordination in the muscles. These become stronger by doing exercise. As a result a person does not feel fatigue even by working for a long time. If the muscles do not have co-ordination or have incomplete co-ordination then the working becomes impossible. 4. **Entrance of Greater Quantity of Oxygen in the Body:** Muscles have to do more work during exercise. The consumption of oxygen increases in the person who exercises. Thus blood reaches quickly in the muscles. 5. **Increase in Supply of Blood**: Muscles get chemical substances like glycogenephoscoratine, potassium etc. by doing regular exercise. These chemical substances increase the speed of blood. 6. **Proper Blood Circulation:** During rest, the blood completes a round of the body in 21 seconds, but it completes the round in just 15, 10 or 8 seconds while exercising. The heart muscles work faster during exercise. 7. **Effects on Bones and Joints:** By doing exercise our bones become hard and they can work for more time. It also has effects on our joints. Thus the bones and muscles become strong by doing exercise. Children's bones happen to be very soft and fragile. Activities of muscles affect these a lot. By the lack of these the bones remain soft and deformity takes place in them. 8. **Effective Respiration:** Regular exercise increases the capacity of chest	**(0.5*4=2)**

	muscles. As a result, the respiratory system gets effective. 9. **Increase in the Resistance Power of Body:** Regular exercise develops the lungs in an equal way. By this the volume of lungs starts increasing. Thus develops the chest Skeleton and by doing exercise the condition of breathing improves. Thus, as a result of this improved breathing capacity the resistance capacity of the body increases.	
6.	**Isotonic method** Isotonic exercises were introduced by De Lorene in 1954. This term comes from the Greek word 'iso' which means 'same or equal' maintaining equal (muscle) tone or tension'. In this one muscle group contracts the opposite relaxes during which the muscle changes its length. These are those exercises in which direct movements are visible to the 3rd person. In this case, personal muscular efforts are evidenced by visible movements. In isotonic exercises rapid movements are accomplished by reflex alteration of contraction and relaxation of antagonistic flexors and extensors of the joints concerned. Type of contraction where we notice the movements of objects is called isotonic contraction e.g. doing exercise with light weight or dumbbells etc. Most of the exercises fall under this category Used to develop Strength.	**(1+1=2)**
7.	Symptoms of ADHD in Children l. They could not perform daily life activities. **1.** They tend to forget routine work. **2.** They indulge in daydreaming. **3.** They do not like performing activities that require sitting still. **4.** They get easily distracted. **5.** They are weak in sports activities. **6.** They do not take rest and usually roam around. **7.** They could not have any control on their emotions. **8.** They lack concentration and work carelessly. Symptoms in Adu1ts l. They always remain worried. 2. They remain impulsive. 3. They have an inferiority complex. 4. They are always disorganized. 5. They easily get irritated. 6. They find difficulty in remembering things.	**(1+1=2)**

	7. Mood swings and depression are common in such adults. 8. They cannot control their anger. 9. They have problems with concentration. Causes of ADHD **1. Heredity :** If any parent is suffering from ADHD, there remains a high probability of occurrence of this disorder in their children. **2. Pre-Nature Birth :** If a child is delivered prematurely the nervous system is not fully developed which increases chances of occurrence of ADHD. **3. Less Efficiency of Brain and Deformity :** If there is deformity of brain shape that causes neural-imbalance which can cause ADHD. **4. Less Birth Body Weight :** If a child on birth has less body weight, ADHD, disorder remains a possibility. **5. Consumption of Alcohol and Drugs :** Consumption of alcohol and drugs always adversely affects our brain cells and nervous system. **6. Exposure to Toxic Substance:** Exposure to some toxic substance like lead can cause ADHD. **7. Diet :** Few researches have proved that a particular type of food substance plays a role in causing ADHD.	
8.	**(a) Laceration:** A laceration is an injury that results in an irregular break in the skin, more commonly referred to as a cut, but defined as a torn and ragged wound. Lacerations are caused when an object strikes the skin and causes a wound to open. Depending on a variety of characteristics (angle, force, depth, object), some lacerations can be more serious than others, reaching as far as deep tissue and leading to serious bleeding. The predominant symptoms of lacerations are mild to serious breaking of the epidermis, tears in the first layer of skin that can range from small slices to deep gashes. Depending on the depth of the laceration, there can be bleeding of different levels of severity. Mild lacerations may experience brief bleeding accompanied by mild pain. Deeper lacerations will experience greater bleeding and more intense pain. Treatment of laceration (Treatment Steps) i. Stop bleeding at the earliest by compression or by pressing. ii. Clean the surface of the affected part using water and soap. iii. Cover the affected part with medicinal cotton bandage or apply band aid. iv. Repeat dressing or padding over the wound. If bleeding continues then applyy	**(1+1=2)**

	further pads or dressing. v. Apply ice/cold for compression. vi. If injury is deep go for stitches at the earliest.	
9.	**Strategies to make physical activities accessible for CWSN** 1. **Interest:** Physical activities must be based on interest, ability and limitation of children with special needs to ensure maximum participation. 2. **Ability:** The physical and mental state of children with special needs shall be considered. 3. **Medical Check-up :** First, it is mandatory to have a medical check-up of all children with special needs. Because without that we cannot know about the disability the child is having. 4. **Pre-experiences:** Before deciding physical strategies, we shall know the children with their past experiences and convince them. 5. **Equipment:** The equipment used should be according to capability and level of children. It may vary in size, shape, colour and weight. 6. **Specific Environment :** A healthy and democratic environment shall be created so that CWSN can perform freely. 7. **Modified Rules :** According to CWSN, the rules shall be diluted and modified according to their nature of disability. 8. **Easy to Difficult :** The exercise shall be in progression from easily to difficult. 9. **Use of All Body Parts :** Physical strategies shall involve. Whole body parts and ensure whole body movement. 10. **Extra Care of Concern :** While deciding upon physical strategies for CWSN, extra care and concern shall be given like extra time, to avoid stress light music.	**(1+1=2)**
10.	**Any four techniques of motivation** 1. **Goal Setting:** Goal setting is one of the most powerful techniques of motivation. The athlete should be very specific and clear about his goal. In other words, an athlete should be very clear what he has to do, how, and why. If these three things are clear in the mind of the athlete then there will be no problem in motivation and one will do the things accordingly. One should be prepared mentally to do the activity and work to achieve the goal. The goal should not be impossible to achieve, it should be in the reach of the individual. One should know the advantages of attaining the goal.	**{1+(0.5* 4)}=3**

2. **Reinforcement:** Reinforcement is the use of rewards and punishments that will work to either encourage a certain action or decrease it in the future. There are two ways of using reinforcement - a positive and a negative approach. The positive approach focuses on reward appropriate behaviour this increases the likelihood of this behaviour happening again. The negative approach focuses on punishing undesirable behaviors and should lead to decrease of these behaviours in the future. Most coaches and instructors combine positive and negative approaches.

3. **Knowledge of Progress:** The athlete should know fully about himself, his capacity, quality, behavior, etc. Periodic positive results act as a strong motivational force. One should be made aware about his progress from time to time. Knowledge of progress is must because progress is also a reward in itself.

4. **Rewards**: They can be effective for further progress and to achieve goal. This can be very effective to motivate the players. Various rewards and cash prizes act as a strong motivational force to perform.

5. **Jobs:** Outstanding sports persons can be offered good jobs according to their achievement and educational qualifications. There are various departments which provide jobs to good sports persons i.e. Police departments in various states, Indian railways, Banks, Air India, etc.

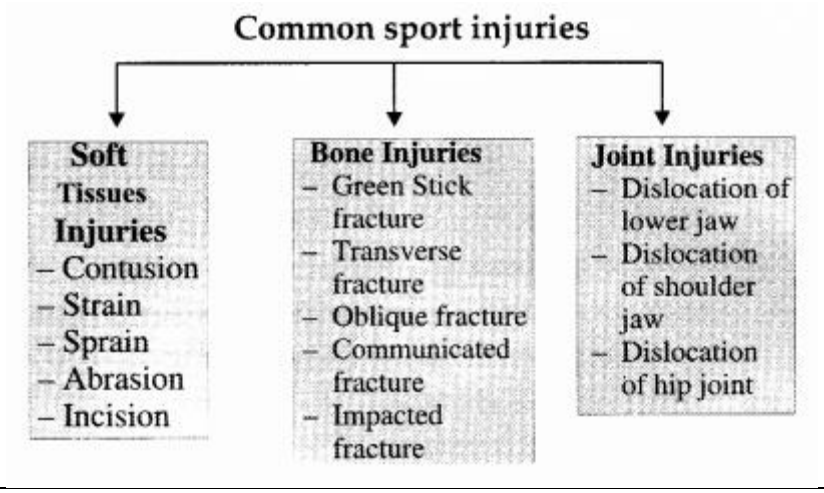
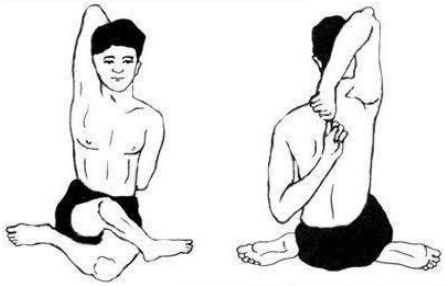
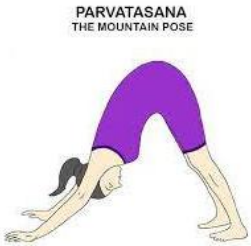
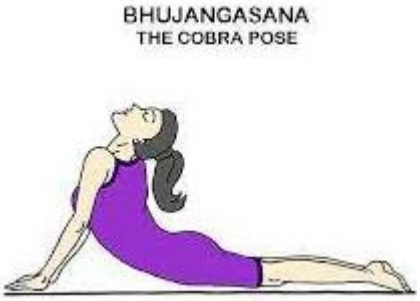
6. **Social Awards:** The Government of India every year announces awards for outstanding sports persons who bring laurels for the country in various games and sports. They are honored with Arjuna Awards, Padama Shri, Rajiv Gandhi Khel Ratna Award, Dronacharya Award, Major Dhyan Chand Award, Padma Bhushan etc. Some special awards are also given for international achievements.

7. **Positive talks:** Positive talk by the teachers or coaches is one of the best methods to motivate an individual. It can help the athlete to change his thinking and behaviour. It is most important even for players and athletes at international level. At lower stages it works as a most successful tool for motivation.

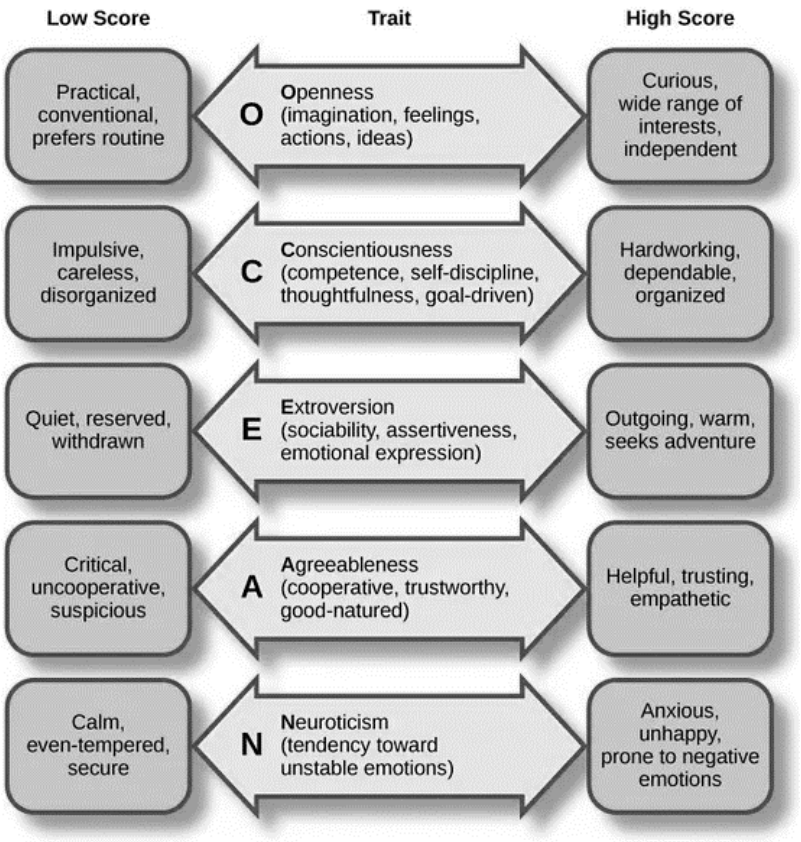
8. **To provide best quality equipment** The players and athletes should be provided the best possible equipment, which will help the athlete to avoid sports injuries, best and easy practice without any tension in mind. Good quality equipment urges the participants to participate in the activity whereas old and sub-standard equipment may turn off the interest of the individual.

9. **Positive attitude and environment:** It is most important to have a positive attitude and environment for a successful training programme. The coach and the trainee should have a positive attitude towards each other and towards the activity. The cordial environment plays a vital role to motivate

	an athlete. 10. **Role of Mass Media:** Television and Newspapers play an important role in motivating the players. When the media gives coverage and recognition to the performance of the sports persons it gives a boost to their self confidence. 11. **Role of Spectators**: Crowd plays an important role in motivating the players. Good and positive responses of spectators encourage the sports persons to give their maximum.	
11.	**1.** Cognitive Disability This disorder comes in the mental disorder category. Due to cognitive disorder, a person's ability to learn, speak, memorize, and problem solving skills are disrupted. Due to cognitive disorder, the person suffers from dementia, and delirium disease. In addition, it adversely affects the memorizing power and reasoning power. Normally, these are various symptoms of these : **(i)** **Memory Disorder:** The person who has a problem in listening and then recalling things. **(ii)** **Hyper Activity:** The person tends to hyper during sitting, standing phase, The person remains in undue hurry. **(iii)** **Dyslexia:** The person who faces problems in reading, writing and memorizing. Cause of Cognitive Disability Cognitive disability normally occurs due to problems of the brain like tumor, head injury, shock, infection, harmful brain neurotoxins, heredity or any other brain related disease. It affects a person's memorizing power, learning skills and ability to do routine activities like, in case of tumor or head injury on part of the brain which controls speech control, can affect the speaking skills of that person. In same way, if brain tumor or head injury on that part of the brain which can hamper the physical movement or delving other physical activities.	**1+2=3**

12.		**1+1+1=3**
13.	ASTHMA :SUKHASANA, CHAKRASANA, GOMUKHASANA, PARVATASANA, BHUJANGASANA, PASCHIMOTTA- SANA, MATSYASANA   Gomukhasana - Cow Face Pose Fingers are locked at behind     	**{1+(0.5* 4)}=3**
14.	10.2 Fartlek Training Method:	

	The Fartlek method of training was introduced and practiced in Sweden. 'Fartlek' is a Swedish term which means 'speed play' (playing with speed). This training method was first introduced by Gosta Holmer. It is a type of cross country running. Fartlek is usually conducted over a hilly region track, and it allows variation in pace. It is one of the best methods of conditioning for most of the sports in which endurance is the basic requirement. This training can be performed at hilly path, river bed, forest, muddy road or sandy path etc. Self-discipline is most important and vital in this type of training. In Fartlek, the change of pace or speed is not pre planned so some exercises can also be included in this method. These exercises may be performed by stopping and running temporarily at different intervals. The type of exercises that can be included along with running are hopping, jumping, squat jump, double hop jump etc. ADVANTAGES OF FARTLEK Training 1. It is an off season training method but is very useful in developing endurance in athletes. 2. It has a psychological advantage over the other training methods because the changing scenes help in delaying fatigue. 3. It is the best method to improve endurance in sports where endurance is a basic requirement e.g. cross-country running. 4. Balancing adjustments of ankles, knees and thighs improves due to the uneven surface.	**1*3=3**

15.		**1+3=4**
16.	**Fast Twitch Muscle Fibre:** The muscle composition is genetically determined and cannot be changed by training. There are three main types of muscle fibers. These are slow-twitch (type I), fast- twitch(type lla) and fast-twitch(type llb)**.** Fast twitch fibres are much better at generating short bursts of strength or speed than slow twitch fibre muscles. Thus, the greater the percentage of fast twitch muscle fibre one has, the faster he is. **Body Fat:** Fat acts as excess baggage when trying to run. Body fat of 6 to 10 percent of body weight for men and 12 to 17 percent of body weight for women is desirable for sprinting short distances. Lower range of body fat is unhealthy whereas higher range of body fat negatively affects speed. **Anaerobic Capacity:** Speed is dependent on the anaerobic energy systems. Anaerobic capacity is the ability to produce energy without the use of oxygen. Short bursts of speed are anaerobic and are very intensive. Our body can only perform a certain number of quick bursts of speed before we experience the physiological response of pain and fatigue. Thus, an athlete having a better anaerobic capacity will have a better speed. **Neuromuscular Responses:** Neuromuscular responses affect speed. Faster responses lead to faster muscle contraction thus leading to faster speed. **Flexibility:** Another important factor contributing to optimum speed is joint flexibility. Good flexibility will help an athlete in maximum range of movement without much effort and resistance. Proper flexibility of the	**1*4=4**

	involved joints contributes to movements that are more fluid and coordinated, resulting in longer and faster strides and greater speed. Thus, flexibility plays an important role in determining speed.	
17.	Flexibility can be defined as the maximum range of motion at a joint that is the extent of movement possible about a joint without undue strain. Flexibility is not a general quality; it is specific to a particular joint, such as the knee or to a series of joints. This means that an individual can have a better range of motion in some joints than in others. 10.4) Methods to Improve Flexibility **I. Ballistic Stretching:** The individual performs these stretching exercises while in motion. This dynamic method uses the momentum generated from repeated bouncing movements to stretch the muscles. Although it is very effective, most experts do not recommend this method because it may overstretch the muscles and can cause muscle soreness or injury. This method includes various exercises like swinging the trunk sidewards, forward, backward, swinging the legs etc. **II. Static Stretching**: It is an extremely popular and effective technique. Static stretching involves gently and slowly moving into the stretch position and holding it for a certain period of time. Movement should take place through the full range of motion until a little tension or tightness is felt in the muscles or group of muscles. As the muscle relaxes, the stretch should be extended and held again. Stretching should not be painful. Care must be taken not to force the joint to move too far, which may cause an injury. Stretching should be held from 10 to 30 seconds and a maximum of five repetitions for each exercise. **III. Passive stretching:** Passive stretching techniques are usually performed with a partner who applies a stretch to a relaxed joint. Partner stretching requires closer communication between partners, and the slow application of the stretch in order to 4 prevent injuries due to forceful manipulation of the body segment. **IV. Proprioceptive Neuromuscular Facilitation (PNF) or Contract**: PNF technique is the most appropriate method for increasing or developing flexibility in the shortest possible time. This method is used by sportsmen for gaining flexibility. It involves use of muscle contraction before stretching to achieve maximum muscle relaxation. The following procedure is used for PNF technique : 1. Move into the stretch position so that the stretch sensation can be felt. 2. The partner holds the limb in this stretched position. 3. Push against your partner for 6 to 10 seconds by contracting the antagonistic muscles and then relax. During contraction, the partner	**1+3=4**

	tries to resist any movement of the limb. 4. The partner then moves the limb further into the stretch until the stretch sensation is felt. **5.** Repeat the whole procedure for 4 to 5 times.	
18.	PAWANMUKTASANA Procedure 1. Lie on your back with your feet together and arms besides your body and relax, breathing deeply. 2. With a deep inhalation raise your legs to 90° and completely exhale. 3. Now with another inhalation bring both the knees close to your chest and press on the lower abdomen, holding the knees with your hands. Exhale completely. 4. Remain with bent knees for a few breaths. With every exhalation press the thighs and knees on the abdomen and hold them with your hands. 5. With a deep breath raise your head, neck and chest and bring them close to your knees. If possible, bring your chin in between your knees. Ensure the head moves less and the knees come closer to the face. That way the pressure on the abdominal muscles will help in releasing the unwanted gas/wind around the abdominal organs. 6. Remain in this posture for a few breaths focusing on maintaining the position of the head and neck in place. With every exhalation press the thighs closer and deeper into the chest and face deeper into the knees. 7. Try to maintain the balance while breathing slowly and keeping the body relaxed. 8. Now with an inhalation, release the neck and head and exhale completely. With another inhalation straighten the legs and bring them back to 90° and as you exhale release the leg from 90° to the relaxed posture. With complete exhalation, bring the legs stretched out on the floor and relax the neck. 9. Take a few breaths, and then continue with the next round. The longer you hold in this posture the faster the muscles around the abdomen loosen. Contraindications To be avoided or performed under guidance by those suffering from 1. severe migraine 2. High or Low Blood Pressure	**2+1+1=4**

	3. Asthma 4. slip disc 5. advanced stages of spondylitis 6. Girls/Women should avoid this asana or take the guidance of the teacher while practicing it during the menstrual cycle.