Sample Question Paper, 2021-22

(Issued by CBSE Board on 14th January, 2022) PHYSICAL EDUCATION (TERM-II)

SOLVED

Time allowed: 90 Minutes Max. Marks: 40

General Instructions:

- (i) There are three sections in the Question paper namely Section A, Section B and Section C.
- (ii) 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.
- (iii) 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.
- (iv) 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

[14 Marks]

- **1.** Explain any two benefits of ardha matsyendrasana.
- (1+1) **2.** Define explosive strength with the help of example.
- (1+1)
- 3. Define personality and motivation. (1+1)
- 4. Write the full form of SPD and ASD. (1+1)
- List any four changes happening in muscular system due to exercise. (0.5×4)
- **6.** What is the meaning of the Isotonic method and it is used for developing which ability. (1+1)
- Mention any two symptoms and causes of ADHD.
 (1+1)
- 8. What is Laceration and how can it be managed?
 (1+1)
- List down any two strategies to make physical activities accessible for CWSN. (1+1)

Section - B

[9 Marks]

10. List down and of motivation. briefly explain any three techniques $(1+(0.5\times4)]$

- **11.** Explain cognitive disability along with its symptoms. (1+2)
- **12.** Create a flowchart to explain classification of sports injuries. (1+1+1)
- **13.** List down any three asanas used for preventing Asthma and write two benefits of each. (1+2)
- **14.** What are the salient features of the Fartlek training method? (1×3)

Section - C

[12 Marks]

- **15.** Explain any three personality types of Big five theory. (1+3)
- Discuss physiological factors determining speed. (1×4)
- **17.** Define flexibility and explain methods to develop flexibility. (1+3)
- **18.** Briefly explain the administration of Pawanmuktasana along with its contraindications and draw stick diagram. (2+1+1)

SOLUTIONS

Section - A

- 1. Benefits of Ardha Matsyendrasana:
 - (i) It loses extra Fat and makes the body beautiful and strong.
 - (ii) It s timulates 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 of 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.

(Any two) 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
- 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 sumtotal 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.'

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. Young, "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."

1+1=2

4. Sensory Processing Disorder (SPD) Autism Spectrum Disorder (ASD)

1+1=2

- **5.** Changes happening in the muscular system due to exercising.
 - Change in size and shape of muscle: (i) Regular exercise helps in enlarging cells of muscles which in turn helps in changing size and shape of muscles.
 - Increase in the strength of muscles: A (ii) 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.
 - **Increase in Coordination:** Regular exercise increases coordination in the muscles. 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.
 - (iv) 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.
 - Increase in the supply of Blood: (v) Muscles get chemical substances like glycogenephoscoratine, potassium, etc., by doing regular exercise. These chemical substances increase the speed of blood.
 - (vi) 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.

- 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.
- (viii) Effective Respiration: Regular exercise increases the capacity of chest muscles. As a result, the respiratory system gets effective.
- (ix) Increase in the Resistance Power of the **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.

Any four $(\frac{1}{2} \times 4 = 2)$

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 and 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.

7. Symptoms of ADHD in Children

- (i) They could not perform daily life activities. They tend to forget routine work. (ii)
- They indulge in daydreaming. (iii)
- They do not like performing activities that (iv) require sitting still.
- They get easily distracted. (v)
- (vi) They are weak in sports activities.
- (vii) They do not take rest and usually roam around.
- (viii) They could not have any control on their emotions.
- They lack concentration and work carelessly. (ix) **Symptoms in Aduts**
- They always remain worried. (i)
- (ii) They remain impulsive.
- They have an inferiority complex. (iii)
- They are always disorganized. (iv)
- (v) They easily get irritated.
- (vi) They find difficulty in remembering things.
- Mood swings and depression are common in such adults.
- (viii) They cannot control their anger.
- They have problems with concentration.

(Any two)

Causes of ADHD

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- (i) Heredity: If any parent is suffering from ADHD, there remains a high probability of occurrence of this disorder in their children.
- (ii) Pre-Nature Birth: If a child is delivered prematurely, the nervous system is not fully developed which increases chances of occurrence of ADHD.
- (iii) Less Efficiency of Brain and Deformity: If there is deformity of brain shape that causes neural-imbalance, it can cause ADHD.
- (iv) Low birth weight: If a child on birth has less body weight, ADHD, disorder remains a possibility.
- (v) Consumption of Alcohol and Drugs: Consumption of alcohol and drugs always adversely affects our brain cells and nervous system.
- (vi) Exposure to Toxic Substance: Exposure to some toxic substance like lead can cause ADHD.
- (vii) Diet: Few researches have proved that a particular type of food substance plays a role in causing ADHD. (Any two) 1+1=2
- **8.** 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)
 - Stop bleeding at the earliest by compression or by pressing.
 - (ii) Clean the <u>surface</u> 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 apply further pads or dressing.
 - (v) Apply ice/cold for compression.
 - (vi) If injury is deep go for stitches at the earliest.

1+1=2

Strategies to make physical activities accessible for CWSN

- (i) Interest: Physical activities must be based on interest, ability and limitation of children with special needs to ensure maximum participation.
- (ii) Ability: The physical and mental state of children with special needs shall be considered.
- (iii) 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.
- (iv) Pre-experiences: Before deciding physical strategies, we shall know the children with their past experiences and convince them.
- (v) Equipment: The equipment used should be according to capability and level of children. It may vary in size, shape, colour and weight.
- (vi) Specific Environment: A healthy and democratic environment shall be created so that CWSN can perform freely.
- (vii) Modified Rules: According to CWSN, the rules shall be diluted and modified according to their nature of disability.
- (viii) Easy to Difficult: The exercise shall be in progression from easily to difficult.
- (ix) Use of All Body Parts: Physical strategies shall involve. Whole body parts and ensure whole body movement.
- (x) 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.

(Any two) 2

Section - B

10. Any four techniques of motivation

- i) 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.
- (ii) 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.
- (iii) 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.
- **(iv) 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.
- (v) 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) 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.
- (x) 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.
- (xi) 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.

(Any four) $\{1+(0.5\times4)=3\}$

11. 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, paschimottasana, Matsyasana



Gomukhasana – Cow Face Pose Fingers are locked at behind



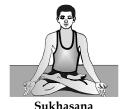
PASCHIMOTTANASANA THE FORWARDS BEND POSE



MATSYASANA THE FISH POSE







uknasana

(Any three) 3

14. Fartlek Training Method:

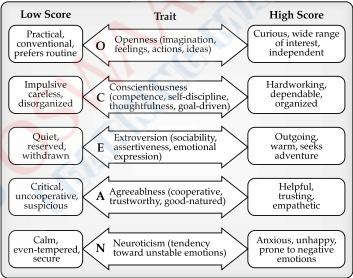
The Fartlek method of training was introduced and practiced in Sweden. 'Fartlek' is a Swedish term which means 'speed play' (playing with speed).

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. Selfdiscipline 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
- It is an off season training method but is very useful in developing endurance in athletes.
- (ii) It has a psychological advantage over the other training methods because the changing scenes help in delaying fatigue.
- (iii) It is the best method to improve endurance in sports where endurance is a basic requirement e.g., cross-country running.
- (iv) Balancing adjustments of ankles, knees and thighs improves due to the uneven surface.

 $1 \times 3 = 3$

Section - C



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 Ila) and fast-twitch(type Ilb). 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 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.

 $1\times4=4$

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

Methods to Improve Flexibility

- I. Ballistic Method: 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 method: 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 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:
 - (i) Move into the stretch position so that the stretch sensation can be felt.
 - (ii) The partner holds the limb in this stretched position.
 - (iii) Push against your partner for 6 to 10 seconds by contracting the antagonistic muscles and then relax. During

- contraction, the partner tries to resist any movement of the limb.
- **(iv)** The partner then moves the limb further into the stretch until the stretch sensation is felt.
- (v) Repeat the whole procedure for 4 to 5 times.

1+3=4

18. PAWANMUKTASANA

Procedure

- Lie on your back with your feet together and arms besides your body and relax, breathing deeply.
- 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.
- 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.
- 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
- 3. Asthma
- 4. slip disc
- **5.** advanced stages of spondylitis
- Girls/Women should avoid this asana or take the guidance of the teacher while practicing it during the menstrual cycle.



4

Solved Paper, 2021-22

PHYSICAL EDUCATION

Term-I, Set-4

Series: SSI/2

Question Paper Code No. 075/2/4

Max. Marks: 40

Time allowed: 90 Minutes

General Instructions:

- (i) There are three sections in the Question paper namely Section A, Section B and Section C.
- (ii) Section A consists of 24 questions out of which 20 questions have to be attempted.
- (iii) *Section B* consists of **24** questions out of which **20** questions have to be attempted.
- (iv) Section C consists of 12 questions out of which 10 questions have to be attempted.

Section-A

(Knowledge & Understanding)

- 1. In planning, procedure means-
 - (a) setting goals
 - (b) making a policy
 - (c) formation of rules and regulation
 - (d) defining course of action
- 2. Logistics committee deals with -
 - (a) Accommdation
- **(b)** Transportation
- (c) Medical staff
- (d) All of the above
- 3. Factors affecting motor development-
 - (a) Personal
- (b) Psychological
- (c) Genetic
- (d) All of the above
- 4. Standing Broad jump is administered to test-
 - (a) Explosive leg speed
 - (b) Explosive leg endurance
 - (c) Explosive leg strength
 - (d) (a) and (c) both
- 5. Floor based physical activities should be planned
 - (a) less than 1 year child
 - (b) 1-2 year child
 - 3-4 year child (c)
 - (d) 5-17 year child
- **6.** Extension is movement, that increases the angle at a joint.
 - (a) bending
- (b) straightening
- (c) twisting
- (d) turning
- 7. Carrot and orange come under-
 - (a) energy giving foods
 - (b) body building foods
 - (c) protective or regulatory foods
 - (d) Normal foods
- 8. Which of the following test is conducted to measure cardiovascular fitness?
 - (a) Back scratch test
 - (b) Rockport one mile test
 - (c) Harvard step Test
 - (d) Both (b) & (c)
- 9. If odd number of teams are participating in a Round robin tournament then the formula for calculating number of rounds is -
 - (a) N-1
- **(b)** $N(N-1)_2$

- (d) N + 1
- 10. Which test is to be conducted to measure agility?
 - (a) Standing Broad jump
 - (b) 4 × 10 shuttle run(c) Partial curl up(d) Push-up
- 11. Mechanical analysis of Javelin thrown by Neeraj Chopra will be done under-
 - (a) Biology
- (b) Biomechanics
- (c) Physiology
- (d) Anatomy
- 12. Which Newton's law of motion is depicted through the picture?



Rebound of a rubber ball

- Newton's 3rd law
- (b) Newton's 2nd law
- (c) Newton's 1st law (d) Newton's 1st & 2nd law
- **13.** IPL cricket tournament is an example of:
 - (a) Knockout Tournament
 - (b) League Tournament
 - **Combination Tournament**
 - (d) Single League Tournament
- 14. Balanced diet is related to:
 - (a) Consuming right amount of vitamins
 - Consuming correct ratio of carbohydrate and
 - (c) Consuming all the nutrients in right amount
 - (d) Consuming excess of protein and minerals
- 15. Which postural deformity is shown in the illustration?



- (a) Bow Leg
- (b) Knock Knee
- (c) Flat Foot
- (d) Round Foot
- 16. refers to inability to digest a particular kind of food.
 - (a) Food Myths
- (b) Food Intolerance
- (c) Food Tolerance
- (d) Healthy Food
- 17. In a knockout tournament, if byes are in odd numbers then number of byes in lower half is calculated by-
 - NB + 1
- (b) $\frac{NB-1}{2}$

- (d) NB 1
- 18. Which vitamins were consumed the most during Covid?
 - (a) Vitamin C and D
- (b) Vitamin B and C
- (c) Vitamin A and B
- (d) Vitamin B and D
- movement, that decreases the **19.** Flexion is angle at the moving joint.
 - (a) Turning
- (b) Straightening
- (c) Twisting
- (d) Bending
- 20. Which Newton's law of motion in depicted through this picture?



- (a) Newton's 1st law of motion
 (b) Newton's 2nd law of motion
- (c) Newton's 3rd law of motion
- (d) Both (a) and (b)
- 21. Rockport test is used to measure-
 - (a) $V0_3Max$.
- **(b)** V0₄Max.
- (c) V0₅Max.
- **(d)** V0₂Max.
- 22. helps in smooth elimination of stool or faeces.
 - (a) Carbohydrates
- **(b)** Roughage
- (c) Minerals
- (d) Vitamins
- 23. "Sway Back" is also known as-
 - (a) Lordosis
- (b) Kyphosis
- (c) Scoliosis
- (d) Round Shoulder
- 24. Following are the constraints for women which restrict their participation in sports, except-
 - (a) Psychological constraint
 - Social constraints

- (c) Eating habits
- (d) Economical constraints

Section-B

(Application + Hots)

Section - B consists 24 question. Attempt any 20 question from this section. 20 questions attempted first, will only be evaluated.

- 25. In a knockout tournament, if 9 teams are participating then number of byes in upper half will be-
 - (a) 3

(b) 4

(c) 5

- (d) 2
- **26.** In sports, a Snooker shot is an example of -
 - (a) Loco motor skill
 - (b) Extended motor skill
 - Fine motor skill (c)
 - (d) Gross motor skill
- **27.** Match the following:



(i) Lower body flexibility



(ii) Upper body strength



(iii) Abdominal strength and Endurance



(iv) Speed



- iii
- (b) iii iv ii
- ii
- iii iv i
- 28. In 50 mt. standing start of Motor Fitness Test, time is taken nearest to:
 - (a) 10th of a second
 - **(b)** 9th of a second
 - 5th of a second (c)
 - (d) 20th of a second

- **29.** Match the following vitamins with their functions :
 - (1) Vitamin K
 - (i) Needed for blood clotting
 - (2) Vitamin D
 - (ii) For protection of cell walls
 - (3) Vitamin E
 - (iii) For vision in dim light
 - (4) Vitamin A
 - (iv) For absorption of calcium and phosphorus

Select the correct answer:

- 1 2 3 4
- (a) i iv iii ii
- (b) i ii iii iv
- (c) ii iv iii i
- (d) i iv ii iii
- **30.** Movement of leg from "Stand at ease" position to attention is:
 - (a) Abduction
- (b) Adduction
- (c) Flexion
- (d) Extension
- **31.** Match the following:
 - (1) Marketing Committee
- (i) Head of organizing committee
- (2) Chairperson Tournament
- ii) Responsible for liaison with Print Media
- (3) Tournament
- (iii) Series of contest between a number of Competitors
- (4) Fixture

ii

(a)

(iv) A sports match that has been arranged for a particular time and date

Select the correct answer:

iii

iv

- 1 2 3 4
- (b) ii i iv iii
- (c) i ii iii iv
- (d) i ii iv iii
- **32.** Asanas shown in the picture are performed to correct:





- (a) Kyphosis and Lordosis
- (b) Round shoulder and Kyphosis
- (c) Scoliosis and Lordosis
- (d) Lordosis and Round Shoulders
- Identify the odd component of fitness depicted here-



2.

3.





- (a) 1 (c) 3
- (b) 2 (d) 4
- **34.** Identify the movement depicted in the picture :



- (a) Extension
- (b) Flexion
- (c) Abduction
- (d) Adduction
- 35. In a knockout tournament 4th Bye will be given to-
 - (a) Last team of Lower half
 - (b) Last team of Upper half
 - (c) First team of Upper half
 - (d) First and Adduction
- 36. Given below are the two statements labelled Assertion (A) and Reason (R):

Assertion (A): Consuming foods that are low in calories and fat, and increase in physical activity will help in maintaining a healthy weight.

Reason (R): There are several ways of assessing a healthy body weight that include weight and height chart, Body Mass Index (BMI) or assessment of body fat percentage.

In the context of above two statements, which one of the following is correct:

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- **(b)** Both (A) and (R) are true but (R) is not the correct explanation of (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is true.

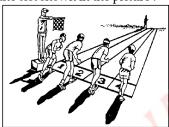
37. What is the minimum number of steps to done in one minute for 5 minutes, as shown is the figure:



(a) (c) 35

- **(b)** 30 (d) 40
- 38. Following are energy giving food except -
 - (a) Cereals
 - (b) Sugar and Jaggery
 - (c) Fats and Oil
 - (d) Yellow and Orange Fruits
- 39. Heading the football into opposition goal post through a corner kick is an example of -

 - (a) Newton's 1st law of motion
 (b) Newton's 2nd law of motion
 (c) Newton's 3rd law of motion
 - (d) (A) & (B) Both
- **40.** Name the test shown in the picture :



- (a) 4×10 mt. relay
- 50 mt. standing start
- 600 mt. run/walk (c)
- (d) Standing board jump
- 41. How many matches will be played in 2nd round, if 14 teams are participating in a knockout tournament?
 - (a) 3 (c)

- (b) 2 (d) 6
- **42.** Match the following minerals with their functions :
 - (1) Iron
- (i) Found in red blood cells
- Calcium
- (ii) Found in thyroid
- hormones
- Sodium
- (iii) Needed for muscle contraction
- (4) Iodine
- (iv) For healthy bones and teeth

Select the correct answer:

- 2. 3 4 iii ii i iv
- (b) ii iii iv i iii iv (c) ii i
- (d) i ii iv iii
- 43. Match the following postural deformities with their corrective Asanas -

- (1) Flat Foot
- (i)



(2) Scoliosis



(3) Knock-Knee



(4) Lordosis



Select the correct answer:

	1	2	3	4
(a)	i	iv	iii	ii

- iv i iv (d) ii iii
- What will be the distance between the chair and marker cone, to measure agility and coordination of

senior citizens shown in the figure:



- (a) 8 feet
- **(b)** 12 feet
- (c) 16 feet
- (d) 18 feet
- **45.** Identify the law of motion, shown in the illustration:



- (a) Law of Inertia
- (b) Law of Action and Reaction
- (c) Law of Acceleration

- (d) Both (b) & (c)
- **46.** Choose odd one from the check list of organizing a sports event -
 - (a) Accommodation
- (b) Place of event
- (c) Art integration
- (d) Sponsorship
- 47. Which statement is not true about food myths?
 - (a) Don't drink water during meal
 - (b) Eating potatoes increases obesity
 - (c) The fewer the carbohydrates, healthier you are
 - (d) Vitamins are essential for your body
- 48. Given below are the two statements labelled Assertion (A) and Reason (R):

Assertion (A): "Achieving health for all means doing what is best for health right from the beginning of people's lives" says WHO Director General, Dr. Tedras Adhanm Ghebreyesus.

Reason (R): For Children at least 180 minutes of physical activities of which 60 minutes is of moderate to vigorous intensity should be planned.

In the context of the above two statements, which one of the following is correct?

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (b) Both (A) and (R) are true but (R) is not the correct explanation of (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is true.

Section-C

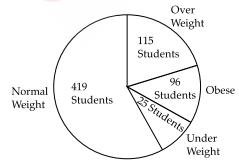
(Case Study)

Section - C consists of 12 questions. Attempt any 10 questions from this section. 10 Question attempted first, will only be evaluated.

49. If you want to be on the top position in games and sports, you have to adhere to proper sports planning. The attainment of good performance in the filed of games and sports depends on effective planning.

Following are the objectives of planning, except-

- Goal orientation
- (b) Making strategies
- (c) Facilitate recreation
- (d) Formation of rules and regulation
- **50.** The XYZ school conducted a research in their school and checked the BMI of all students and they have shared their findings as depicted in the figure:



According to the above data, how many students are at risk of their health

(a) 419

(b) 211

- (c) 121
- (d) 236
- 51. Children and sports are closely related to each other.

Children have an innate tendency to participate in sports. We must focus on the motor development of the children. The important thing is that the motor development of the children should always be according to the requirement of the sports.

Following are the example of gross motor development, except-

- (a) running
- (b) jumping
- (c) standing
- (d) painting
- **52.** The chief aim of physical activities during 5 to 17 years of groups is to improve cardio-respiratory and muscular fitness, bone health, cardiovascular and to reduce symptoms of anxiety and depression.

The Rate at which an activity is performed is known as -

- (a) Volume
- (b) Intensity
- **(c)** Type of activity
- (d) Frequency
- 53. Rock port test may be useful for those who are unable to run due to sedentary lifestyle or for older individual or for those of low fitness level or injury. In Rockport test, gender value for men is -

(b) -1

(c) 0

- (d) +1
- 54. In a residential area, a camp was organized to check the functional fitness level of the senior citizens. During testing, it was found that there was a less range of motion in the joints of upper extremities in

Which test is administrated to check this functional fitness component?









most of the elderly people.





4.



(a) 1 **(b)** 2

(c) 3

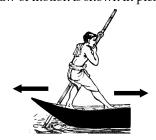
- (d) 4
- 55. Archana a P. E. Teacher of ABC School sent

invitations to 26 teams to play Kho-Kho under Khelo India programme. All teams accepted the invitation. Help Archana by suggesting her as to which type of tournament she should organise to make the competition successful.

- (a) Knockout tournament
- (b) League tournament
- (c) Round robin tournament
- (d) Berger tournament
- 56. Mirabai Chanu is from a very simple family but she always used to dream big. Though she knew that her family would not be able to afford her nutrition, still she continued to pursue her dreams, and finally the day came when she won the silver medal in weight-lifting in Tokyo Olympics.

The women who got two medals in Olympics is -

- (a) P. V. Sindhu
- (b) Lolvina Borgohain
- (c) Sakshi Malik
- (d) Meerabai Chanu
- 57. Physical education teacher of XYZ school explained how Newton's law of motion are used in sports. She explained while dribbling in Basketball. Which law of motion is shown in picture:



- (a) Law of Inertia
- (b) Law of Acceleration
- (c) Law of Action and reaction
- (d) Both (A) and (B)
- **58.** Mamta was practicing the skill of Judo. During the training, her coach told her about different skills of

Judo and advised her to practice the kick regularly. Which movement is shown in the picture?



- (a) Flexion
- (b) Extension
- (c) Abduction
- (d) Adduction
- **59.** During the morning assembly in the school, Anu fell unconscious. She was taken to a nearby doctor. The doctor declared her malnourished and advised her to take balanced diet everyday.

Balance diet consists of:

- (a) Macro Nutrients
- (b) Micro Nutrients
- (c) Nutritive and Non-Nutritive components
- (d) Nutritive component
- 60. In general sports biomechanics is a quantitative based study and analysis of professional athletes and sports activities. It explains how and why the human body moves in the way that it does.

Following are the way that it does.

- (a) Improvement in training
- (b) Improvement in equipment
- (c) Improvement in performance
- (d) Improvement in aesthetic

ANSWERS

Section-A

1. (d) defining course of action

Explanation: Any sequence of activities that an individual or unit may follow with defining course of action.

2. (d) All of the above

Explanation: The responsibility of the logistics coordinator is to ensure that all equipment needed on the day of the event is secured and to be delivered on time — this includes the medical facilities, transportation and other ground equipment's also.

3. (d) All of the above

Explanation: There are several different factors that affect motor development, which include growth of the child, environment, genetics, muscle tone, and gender.

4. (c) Explosive leg strength

Explanation: The Standing long jump, also called the Broad Jump, is a common and easy to administer test of explosive leg power. Purpose: to measure the explosive power of the legs.

5. (a) less than 1 year child

Explanation: For healthy development in infants (birth to 1 year), physical activity – particularly supervised floor-based play in safe environments – should be encouraged from birth.

6. (b) straightening

Explanation: An extension is a physical position that increases the angle between the bones of the limb at a joint. It occurs when muscles contract and bones move the joint from a bent position to a straight position.

7. (c) Protective or regulatory foods

Explanation: You can eat oranges and carrots together every day. They are a very rich source of VITAMIN A & C. One of the best way to start your day is to drink Carrot or Orange juice for breakfast.

8. (d) Both (b) & (c)

Explanation: The Rockport one-mile walking test is an evaluation of cardiovascular fitness, that seeks to predict an individual's aerobic capacity, which is also known as $V0_2$ max, or maximal oxygen consumption.

The Harvard Step Test is a test that measures cardiovascular fitness. The equipment required to perform the test are bench 20 inches high, stopwatch and metronome. The procedure is that the performer steps up and down 30 times a minute on the bench.

9. (c) N

Explanation: Odd numbers of teams = N (ex. 5 teams = 5 rounds)

Even numbers of teams = N - 1 (ex 6 teams = 6 - 1 = 5 rounds)

10. (b) 4×10 shuttle run

Explanation: The Agility 4×10 m Shuttle Run is a test is used to measure an individual's agility performance. This test involves running back and forth between points A and B, 10 meters (33 feet) apart in 4 repetitions for a total shuttle run distance of 40 meters (4×10 m) while timed.

11. (b) Biomechanics

Explanation: The throwing arm is raised above the shoulder at the end of the release phase, the elbow rotates in the outward direction, and the javelin is released with force. The optimal angle of release lies between 33 degrees and 39 degrees. The movement of the fingers causes the javelin to rotate clockwise.

12. (a) Newton's 3rd Law

Explanation: Newton's third law states that when two bodies interact, they apply forces to one another that are equal in magnitude and opposite in direction. The third law is also known as the law of action and reaction.

13. (c) Combination Tournament

Explanation: It the combination of league and knockout for based an round-robin group.

14. (c) Consuming all the nutrients in right amount

Explanation: A balanced diet consisting of a variety of different types of food, providing adequate amounts of the nutrients necessary for good health.

15. (c) Flat Foot

Explanation: A condition in which the entire sole of the foot touches the floor when standing.

16. (b) Food Intolerance

Explanation: A food intolerance, or a food sensitivity occurs when a person has difficulty digesting a particular food. This can lead to symptoms such as intestinal gas.

17. (a) $\frac{NB+1}{2}$

Explanation: Number of byes in the upper half $= \frac{NB-1}{}$

Number of byes in lower half = $\frac{NB+1}{2}$

18. (b) Vitamin B and C

Explanation: Vitamin B- Vitamin B not only helps to build and maintain a healthy immune system but it could potentially prevent or reduce COVID-19 symptoms or treat SARS-CoV-2 infection. Poor nutritional status predisposes people to infections more easily; therefore, a balanced diet is necessary for immuno-competence.

Vitamin C-This vitamin has been hailed for years as a source for aiding the immune system. Vitamin C is vital for the health of leukocytes, a type of white blood cells that help fight infections. It's particularly important during a pandemic. It is recommended that adults should take a supplement of 1000 mg twice every day.

19. (d) Bending

Explanation: In the limbs, flexion decreases the angle between the bones (bending of the joint), while extension increases the angle and straightens the joint.

20. (a) Newton's 1st law of motion

Explanation: According to Newton's First Law of Motion, a soccer ball will stay at rest unless a force of some sort moves it and it will stay in motion unless a non zero force stops it. The force that usually moves the soccer ball is the player's kick.

21. (d) V02 Max.

Explanation: The Rockport Walk Test (RWT) is a 1-mile walk used to estimate the maximal volume of oxygen uptake V02 max).

22. (b) Roughage

Explanation: You may have heard that adding roughage to your diet can improve your digestion. Indeed, roughage has numerous healthy effects on your gut, such as increasing the bulk of stools, decreasing constipation, and feeding beneficial gut bacteria.

23. (a) Lordosis

Explanation: When the spine curves too far inward, the condition is called lordosis or swayback.

24. (c) Eating habits

Explanation: The female athlete triad is defined as the combination of disordered eating, amenorrhea and osteoporosis. This disorder often goes unrecognized. The consequences of lost bone mineral density can be devastating for the female athlete.

25. (a) 3

Explanation: Method for calculating the number of teams-

Total Number of byes if 9 teams are participating-

Number of byes in upper half-

$$= \frac{NB-1}{2}$$
$$= \frac{7-1}{2}$$
$$= 3$$

Section-B

26. (c) Fine motor skill

Explanation: The skills used by an individual to move from one place to another. These skills include rolling, balancing, sliding, jogging, running, leaping, jumping, hopping, dodging, galloping and skipping.

- 27. (c) $\frac{\text{Duration of Exercise (in seconds)} \times 100}{5.5 \times 3 \text{ pulse count 1-1.5 min. after exercise}}$
- **28.** (a) 10th of a second

Explanation: The student will take a standing start and run as fast as possible to give her/his best time. The total time taken to complete the distance between the command "GO" and when the student crosses the finish line is nearest to tenth of a second.

- 29. (d) i iv ii iii
- 30. (b) Adduction

Explanation: The movement of a limb or other part towards the midline of the body or towards another part.

- **31.** (a) ii i iii iv
- 32. (b) Round Shoulder

Explanation: Dhanurasana: Dhanurasana stretches the foot and hand muscles, tones the leg and arm muscles and strengthens them. This yoga posture can alleviate stress, anxiety, and fatigue. It can also help in reducing the symptoms of depression by controlling the level of the cortisol hormone.

Chakrasana: This asana involves flexing backwards by arching your back into a bow and touching your palms to the floor. Chakrasana is known to increase flexibility and increase muscle strength. It targets the spine, wrists, intercoastal muscles, quadriceps and hip flexors apart from stimulating your body's energy.

33. (c) 3

Explanation: Pictures are 1, 2, 4 are for strength measurement test and picture 3 is for flexibility measurement. So, picture 3 is odd.

34. (c) Extension and Flexion

Explanation: The movement of a limb or other part away from the midline of the body, or from another part.

35. (b) Last team of Upper half

Explanation: Methods of byes:

- 1. First bye is given to lower half bottom team
- 2. Second bye is given to top most team of upper half
- 3. Third bye is given to most team of lower half
- 4. Fourth bye is given to bottom team of upper half
- 5. Other byes are determined using this order.
- **36.** (b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

Explanation: When losing weight, more physical activity increases the number of calories your body uses for energy or "burns off." The burning of calories through physical activity, combined with reducing the number of calories you eat, creates a "calorie deficit" situation that results in weight loss.

- **37. (b) 30**
- 38. (d) Yellow and orange fruits

Explanation: Natural pigments are found in vegetables & fruits. There are many colours derived such as red, yellow, orange, etc.

39. (b) Newton's 2nd law of motion

Explanation: Newton's second law is a quantitative description of the changes that a force can produce on the motion of a body. It states that the time and rate of change of the momentum of a body is equal in both magnitude and direction to the force imposed on it.

- **40. (b)** 50 mt. standing start
- 41. (c) 4
- **42.** (a) i iv iii ii
- **43.** (d) i iv ii iii
- 44. (a)

Explanation: The eight foot up and go test is a coordination and agility test for the elderly. The purpose of this test is to measure speed, agility and balance while moving.

45. (c) Law of Acceleration

Explanation: A fielder giving a swing while catching a ball is an example of Newton's II law of motion. By giving a swing while catching a ball increases the time to reach the ball.

46. (c) Arts integration

Explanation: Arts integration is the method that combines the performing arts with fine arts to achieve the desired objective of learning and understanding.

47. (d) Vitamins are essential for your body

Explanation: Vitamins help your body grow and work the way it should. There are 13 essential vitamins — vitamins A, C, D, E, K, and the B vitamins (thiamine, riboflavin, niacin, pantothenic acid, biotin, B6, B12, and folate). Vitamins have different jobs to help keep the body working properly.

48. (b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

Explanation: "Achieving health for all means doing what is best for health right from the beginning of people's lives," says WHO Director-General Dr Tedros Adhanom Ghebreyesus. "Early childhood is a period of rapid development and a time when family lifestyle patterns can be adapted to boost health gains."

Section-C

- 49. (c) Facilitate recreation
- **50.** (d) 236

Explanation: 115 student's are over weight, 96 student's are under weight Hence, 236 are at their health.

51. (d) painting

Explanation: Working with a brush or small tool helps develop fine motor skills (small muscle control). While working on large sheets of paper or at the ease helps develop large muscle control (Gross Motor skills)

52. (b) Intensity

Explanation: Exercise intensity refers to how hard your body is working during physical activity. Your health and fitness goals, as well as your current level of fitness, will determine your ideal exercise intensity. Typically, exercise intensity is described as low, moderate or vigorous.

- 53. (a) 1
- 54. (c) 3 (Back scratch test)

Explanation: Back scratch test measures flexibility in the shoulder joint and shoulder arch on the right and on the left side. The participants started the test by standing up right, placing one arm/hand on the lower back, moving it up the spine toward their head.

55. (a) Knockout tournament

Explanation: The knock-out tournament is helpful in enhancing the standard of sports because each team tries to present the best performance to avoid the defeat.

56. (a) P. V. Sindhu

Explanation: Badminton star PV Sindhu is the greatest athlete India had ever produced. The 27-year-old scripted history at the Tokyo Olympics; she became only the second Indian and the country's first woman to win two Olympic medals.

57. (c) Law of Action and reaction

Explanation: These two forces are called action and reaction forces and are the subject of Newton's third law of motion. Formally stated, Newton's third law is: For every action, there is an equal and opposite reaction.

58. (b) Flexion and Extension

Explanation: the movement of a limb or other part away from the midline of the body, or from another part.

59. (c) Nutritive and Non-Nutritive components

Explanation: There are two different components of a balanced diet, nutritive components (Carbohydrates, Proteins, Fats, Vitamin and Minerals) and non-nutritive components (Fibre or roughage).

60. (d) Improvement in aesthetic

Explanation: At each age, girls' weight concerns and sport participation were assessed and girls were classified as participating in aesthetic sports (dance, gymnastics, cheerleading, baton twirling, swimming, aerobics, figure skating), non-aesthetic sports (volleyball, soccer, basketball, softball, hockey, tennis, martial arts.

CBSE - Sample Question Paper Term - I

OMR SHEET



99

Use English Numbers / Letters only. Use Blue / Black Ball Point Pen to write in box. Test Center Roll Number Booklet Proper Marking Series Code The OMR Sheet will be computer checked Fill 00the circles completely 0000000000and dark enough for proper detection, Use ballpen (black or blue) for marking. 00 (A) 000000000 22 $^{\otimes}$ 22222222 (A) (B) (□) 33 0 3333333333 Invigilator's Signature 44 0 **Test Date** Avoid Improper 44444444 Marking (5)(5) 55555555 66 Student's Signature 00000000 Partially Filled 77 **0000000000** Lightly Filled Subject 88 88888888 Certified that all the entries In this section have been properly filled by the student **8**

IMPORTANT

99999999

The candidate should check that the Test Book Series printed on the OMR Sheet is the same as printed on the Test Booklet. In case of discrepancy, the candidate should immediately report the matter to the invigilator for replacement of both the Test Booklet and the Answer Sheet.

Darken the circle for each question.

Q.No.	Response	Q.No.	Response	Q.No.	Response	Q.No.	
01	A B C D	16	A B C D	31	A B C D	46	A
02	A B C D	17	A B C D	32	A B C D	47	A
03	ABCD	18	A B C D	33	A B C D	48	A
04	A B C D	19	A B C D	34	A B C D	49	A
05	ABCD	20	A B C D	35	A B C D	50	A
06	ABCD	21	A B C D	36	A B C D	51	A
07	A B C D	22	A B C D	37	A B C D	52	A
08	ABCD	23	A B C D	38	A B C D	53	A
09	ABCD	24	A B C D	39	A B C D	54	A
10	A B C D	25	A B C D	40	A B C D	55	A
11	ABCD	26	A B C D	41	A B C D	56	A
12	A B C D	27	A B C D	42	A B C D	57	A
13	ABCD	28	A B C D	43	A B C D	58	A
14	ABCD	29	A B C D	44	A B C D	59	A
15	A B © D	30	A B © D	45	(A) (B) (C) (D)	60	A

Q.No.	Response					
46	A	B	0	(D)		
47	A	lack	©	(
48	A	lack	©	(
49	A	lack	©	(
50	A	lack	©	D		
51	A	lack	©	(D)		
52	A	lack	©	(
53	A	lack	©	D		
54	A	lack	©	D		
55	A	lack	©	(
56	A	lack	©	D		
57	A	lack	©	(
58	A	lack	©	(
59	A	lack	©	(
60	A	B	©	(D)		