

OL/2019/86/E-I, II

සියලු ම හිමිකම් ඇවිරිණි / முழுப் பதிப்புரிமையுடையது / All Rights Reserved

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව  
 இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம்  
 Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka

86 E I, II

අධ්‍යයන පොදු සහතික පත්‍ර (සාමාන්‍ය පෙළ) විභාගය, 2019 දෙසැම්බර්  
 கல்விப் பொதுத் தராதரப் பத்திர (சாதாரண தர)ப் பரீட்சை, 2019 டிசெம்பர்  
 General Certificate of Education (Ord. Level) Examination, December 2019

සෞඛ්‍ය හා ශාරීරික අධ්‍යාපනය I, II  
 சுகாதாரமும் உடற்கல்வியும் I, II  
 Health and Physical Education I, II

06.12.2019 / 0830 - 1140

පැය තුනයි  
 மூன்று மணித்தியாலம்  
 Three hours

අමතර කියවීමේ කාලය - මිනිත්තු 10 යි  
 மேலதிக வாசிப்பு நேரம் - 10 நிமிடங்கள்  
 Additional Reading Time - 10 minutes

Use the **additional reading time** to go through the question paper, select the questions and decide on the questions that you give priority in answering.


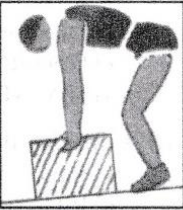
### Health and Physical Education I

#### Note :

- Answer *all* questions.
- In each of the questions from **1** to **40**, pick one of the alternatives (1), (2), (3), (4), which is **correct** or **most appropriate**.
- Mark a cross (X) on the number corresponding to your choice in the answer sheet provided.
- Further instructions are given on the back of the answer sheet. Follow them carefully.

- Hashan is popular. He has friends from different nationalities. Accordingly, it can be concluded that Hashan is
  - a person with good inter-personal relationships.
  - a person with empathy.
  - a sensitive person.
  - a kind person.
- Information about four persons A, B, C and D are given below. Answer questions 2 and 3 using the given information.
 

A - An intelligent, efficient person who respects all religions and ethnic groups equally  
 B - An educated intellectual person who works hard to accomplish innovations  
 C - A social worker who voluntarily engages in social service  
 D - A religious leader who works hard to promote his religion
- According to the above information, out of these people, the person having a total health is
  - A.
  - B.
  - C.
  - D.
- The person/s with social well-being is/are
  - C.
  - D.
  - A and C.
  - B and D.
- My friend has the ability to manage stress and emotions. Accordingly, it can be stated that
  - he has a good physical health.
  - he has a good mental health.
  - he has a good social health.
  - he is a person with psycho-social well-being.
- X and Y are diagrams showing two postures that are used when sitting in front of a computer while working, and lifting a weight, respectively. Select the correct statement about these postures.
 

  - Both X and Y postures are correct.
  - Both X and Y postures are incorrect.
  - X posture is correct whereas Y posture is incorrect.
  - X posture is incorrect whereas Y posture is correct.
- Out of the following statements about walking and running, select the correct statement.
  - Walking is a static posture while running is a dynamic posture.
  - Running is a static posture while walking is a dynamic posture.
  - Walking and running are static postures.
  - Walking and running are dynamic postures.

[see page two]

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- Use the following information to answer questions 7 and 8.  
Sanduni, who is frequently consuming large amounts of fats, sugar and salt, never engages in exercises.
7. The colour of the zone to which Sanduni belongs in the Body Mass Index (BMI) chart could most likely be  
(1) orange. (2) light purple. (3) green. (4) light purple or dark purple.
8. According to the above information, the disease condition that could most likely affect Sanduni is  
(1) appendicitis. (2) tuberculosis. (3) diabetics. (4) cirrhosis.
9. Choose the correct sentence about the following statement and the reason for the statement.  
**Statement** : Foods such as onions and potatoes are stored in dark, dry and well-aerated places  
**Reason** : To prevent fungal growth and toxin (the green pigments that can be seen in potato skin) production in potatoes and onions.  
(1) The statement and the reason are incorrect.  
(2) The statement and the reason are correct.  
(3) The statement is correct while the reason is incorrect.  
(4) The statement is incorrect while the reason is correct.
10. Consider the following characteristics.  
● Consist of elastic wall  
● Urine is stored in the inside space  
● Urine is passed when the walls are contracted  
The human organ/s that possess the above-mentioned characteristics is/are  
(1) kidneys. (2) nephrons. (3) the bladder. (4) the urethra.
11. The chest cavity expands due to contraction of the diaphragm and intercostal muscles. As a result, the air pressure within the chest cavity falls below the atmospheric pressure. Consequently, the atmospheric air enters the lungs. This process is named as,  
(1) respiration. (2) air exchange. (3) inhalation. (4) exhalation.
12. When an athlete extends his right arm at the elbow joint to release the shot, his elbow joint works as a,  
(1) ball and socket joint. (2) hinge joint.  
(3) pivot joint. (4) gliding joint.
13. For a successful growth, the zygote formed after an ovum being fertilized by a sperm, must be deposited in the  
(1) ovary. (2) Fallopian tube. (3) uterus. (4) cervix.
14. Several methods by which a certain disease can be spread are listed below.  
● From unsafe sexual intercourse (homosexual or heterosexual)  
● From blood transfusion  
● From infected mother to child  
● From unsterilised syringe needles  
The disease condition that could be spread from all of the above methods is  
(1) Gonorrhoea. (2) Syphilis.  
(3) HIV/AIDS. (4) Genital warts.
15. Consider the following information.  
● Ravi - A young male ● Kumari - A female adolescent  
● Rifas - A patient with a low blood haemoglobin level ● Kamani - A lactating mother  
Of the above individuals, the persons with the **highest** iron requirements are  
(1) Ravi and Rifas. (2) Kumari and Kamani.  
(3) Kumari and Rifas. (4) Ravi and Kamani.

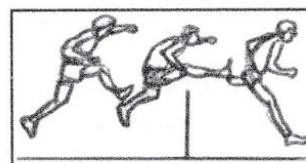
*[see page three]*





23. The **most** important component required at the sprint start is  
 (1) speed. (2) flexibility.  
 (3) reaction speed. (4) strength.
24. The school relay team used the mixed change to change the baton at the 4 × 100 m relay of the sports-meet. Select the choice that describes the baton changing method used by the team.  
 (1) Receiving the baton with the left hand and passing it with the right hand  
 (2) Receiving the baton with the right hand and passing it with the left hand  
 (3) Receiving and passing the baton using only the left hand  
 (4) Changing the baton using a combination of inside pass and outside pass
25. After his third attempt, a discus thrower left the circle through the back half before the discus touched the ground. At this instance, as a judge, you would  
 (1) record it as a correct throw in the result sheet.  
 (2) record it as a 'no throw' in the results sheet.  
 (3) award another attempt to the athlete.  
 (4) disqualify the athlete.

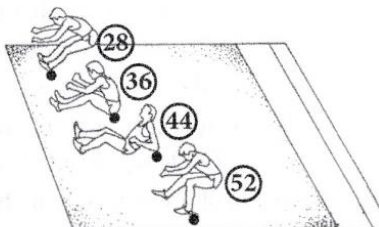
26. A phase completed by an athlete who participated in a hurdles event is shown in the diagram. This phase is  
 (1) the take off. (2) clearing the hurdle.  
 (3) landing. (4) running between the hurdles.



27. Consider the following track event combinations.  
 A - 400 m sprint, 4 × 400 m relay, 400 m hurdles  
 B - 1500 m running, 3000 m running, marathon running  
 C - 3000 m running, 5000 m running, 10000 m running  
 D - 100 m sprint, 200 m sprint, 4 × 100 m relay

Out of the above events, the event combination/s that use/s the command "On your mark, Get set, Go/sound of the starting gun" is/are given by the letter/s  
 (1) A. (2) D. (3) A and D. (4) B and C.

28. The points on which the bodies of the long jumpers No. 28, 36, 44 and 52 touched the landing area during their event are marked by '•' in the diagram.  
 Out of these players, the numbers of players who will be winning the first and second places, respectively, are  
 (1) 28 and 52. (2) 28 and 36.  
 (3) 52 and 44. (4) 36 and 44.



29. When a volleyball tournament with five teams is organized using the method given in the diagram,  
 (1) all matches can be completed within a shorter period of time.  
 (2) the tournament can be conducted with a limited number of referees.  
 (3) the tournament can be conducted with minimum quantities of equipment, funds and playgrounds.  
 (4) the best team participated in the tournament can be selected.

	A	B	C	D	E
A		AB	AC	AD	AE
B	BA		BC	BD	BE
C	CA	CB		CD	CE
D	DA	DB	DC		DE
E	EA	EB	EC	ED	

30. Select the statement consisting of **false** information about the evolution of Olympic Games.  
 (1) The Olympic Games were first held in 776 BC in Olympia, Greece.  
 (2) In the past, the winners of the Olympic Games were awarded olive branches.  
 (3) At the beginning, the rate of women's participation in Olympics remained at a higher level.  
 (4) In 1896, the Frenchman Pierre de Coubertin started the modern Olympic Games.
31. An athlete practised a technique that had the following phases,  
 Preparation → Gliding backward → Power position → Releasing → Follow through  
 The athlete was practising,  
 (1) a technique of the javelin throw. (2) a technique of the hammer throw.  
 (3) a technique of the discus throw. (4) a technique of the shot put.

[see page five



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- 5 -

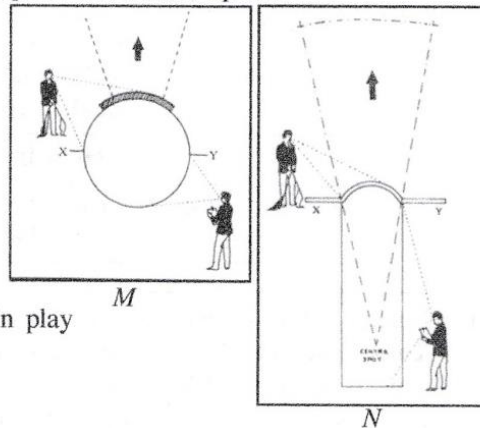
32. Consider the following information.

- Glucose  $\xrightarrow{O_2}$  Carbondioxide + water + energy
- Fatty acids  $\xrightarrow{O_2}$  Carbondioxide + water + energy

The events that predominantly use the energy system denoted by the above equations to produce energy are,

- (1) 400 m running and 1500 m running      (2) 100 m sprint and 800 m running.  
 (3) 10000 m running and marathon.      (4) 100 m sprint and 200 m sprint.

- Diagrams *M* and *N* show two play areas in which the judges are getting ready to judge two events of All Island School Games. Answer questions 33 and 34 using these information.



33. The equipment that should be used by the athletes participating in the event held in play area *M* is the

- (1) shot.      (2) discus.  
 (3) javelin.      (4) hammer.

34. The event that is judged by the two judges positioned in play area *N* is the

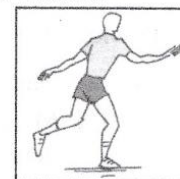
- (1) discus throw.      (2) shot put.  
 (3) javelin throw.      (4) hammer throw.

35. During the 100 m event of an Olympic Games, an athlete was tested and found positive for consuming banned performance enhancers. The substance that was used for this test could be

- (1) a urine sample of the athlete.      (2) a blood sample of the athlete.  
 (3) a saliva sample of the athlete.      (4) a blood or urine sample of the athlete.

36. The player in the diagram has managed to maintain his balance by

- (1) moving the body parts in opposite directions.  
 (2) widening the base of support.  
 (3) bringing the centre of gravity to a lower level.  
 (4) bending the body toward an external force.



37. Select the correct sentence about the statement and the reason for the statement given below.

**Statement:** The body of a high-jump athlete acts as a projectile during his jump.

**Reason:** An object that is projected toward the air is called a projectile.

- (1) The statement is correct and the reason is incorrect.  
 (2) The statement is incorrect and the reason is correct.  
 (3) The statement and the reason are correct.  
 (4) The statement and the reason are incorrect.

38. In triple jump, the landing of the 'hop' should be performed using the

- (1) the take off leg.      (2) the free leg.  
 (3) the take off leg or the free leg.      (4) both legs.

- Study the pairs of events *A*, *B*, *C* and *D* and answer questions 39 and 40.

- A* - [ Taking part in the physical fitness programmes conducted in the school  
 Ability to develop a balanced personality  
*B* - [ An athlete limiting the methodical training sessions  
 Ability to decompose lactic acid formed in the muscle  
*C* - [ Moving the center of the gravity of a standing athlete to a lower level  
 Athlete obtaining balance  
*D* - [ Lack of mutual understanding among the team members  
 Ability to show good performance

39. The pairs of events of which the **increase** of the first event results in the **increase** of the second event are

- (1) *A* and *B*.      (2) *A* and *C*.      (3) *B* and *D*.      (4) *C* and *D*.

40. The pairs of events of which the **increase** of the first event results in the **decrease** of the second event are

- (1) *A* and *B*.      (2) *A* and *C*.      (3) *B* and *D*.      (4) *C* and *D*.

\* \*

[see page six

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව  
இலங்கைப் பரீட்சைத் திணைக்களம்  
අ.පො.ස.(සා.පෙළ) විභාගය - 2019  
க.பொ.த (சா.தர)ப் பரீட்சை - 2019

විෂය අංකය  
பாட இலக்கம்

**86**

විෂය  
பாடம்

**Health and Physical Education**

**I ප්‍රශ්න - පිළිතුරු**

**I பத்திரம் - விடைகள்**

ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.	ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.	ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.	ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.
01.	1	11.	3	21.	2	31.	4
02.	1	12.	2	22.	1	32.	3
03.	3	13.	3	23.	3	33.	1
04.	2	14.	3	24.	4	34.	3
05.	3	15.	3	25.	2	35.	4
06.	4	16.	1	26.	2	36.	1
07.	4	17.	4	27.	3	37.	3
08.	3	18.	4	28.	2	38.	1
09.	2	19.	1	29.	4	39.	2
10.	3	20.	4	30.	3	40.	3

විශේෂ උපදෙස් } එක් පිළිතුරකට ලකුණු 01 බැගින්  
விசேட அறிவுறுத்தல் } ஒரு சரியான விடைக்கு புள்ளி வீதம்

මුළු ලකුණු / மொத்தப் புள்ளிகள் **01 × 40 = 40**

පහත නිදසුනෙහි දක්වන පරිදි බහුවරණ උත්තර පත්‍රයේ අවසාන තීරුවේ ලකුණු ඇතුළත් කරන්න.  
கீழ் குறிப்பிடப்பட்டிருக்கும் உதாரணத்திற்கு அமைய பல்தேர்வு வினாக்களுக்குரிய புள்ளிகளை பல்தேர்வு வினாப்பத்திரத்தின் இறுதியில் பதிக.

නිවැරදි පිළිතුරු සංඛ්‍යාව  
சரியான விடைகளின் தொகை

**25**

**40**

I පත්‍රයේ මුළු ලකුණු  
பத்திரம் I இன் மொத்தப்புள்

**25**

**40**

### **03. An Introduction to the Objectives of Paper II**

- 3.1 The seven questions included in this paper are prepared after carefully studying the Health and Physical Education syllabi and the Teachers' Guides. A special attention is paid to the student's knowledge, comprehension, application, analysis, synthesis and evaluation, and the objective is to investigate up to what extent, the competencies are developed within the student as a result of the new Education Reforms.
- 3.2 Instructions for awarding marks and the marks distribution for Paper II
- 3.2.1 The total marks for Paper II is 60.
- 3.2.2 Paper II consists of two parts: Part I and Part II. Question 1 is compulsory and consists of 10 short questions. Part I and Part II contains three questions, which totals to six questions. Students are instructed to answer four questions by selecting at least two questions from each of the two parts.
- 3.2.3 Except for the compulsory question, the maximum marks that can be awarded for each question in Part I and Part II is 10. The mark distribution for each question is indicated in the marking scheme. Further, the suggestions for modifications provided at the Chief Controllers' Meeting must be added to this marking scheme.

**Mark Distribution for the Answers of Paper II**

<b>Question No.</b>	<b>Part</b>	<b>Marks</b>	<b>Question No.</b>	<b>Part</b>	<b>Marks</b>
01.	i	02	05.	i	02
	ii	02		ii	03
	iii	02		iii	05
	iv	02	06.		<b>Total 10 marks</b>
	v	02			
	vi	02			
	vii	02		i	02
	viii	02		ii	03
	ix	02		iii	05
	x	02		07 A.	
<b>Total 20 marks</b>	i	02			
	ii	03			
02.	i	02	iii	05	
	ii	03	07 B.		<b>Total 10 marks</b>
	iii	05			
<b>Total 10 marks</b>	i	02			
03.	i	02	ii	03	
	ii	03	iii	05	
	iii	05	07 C.		<b>Total 10 marks</b>
<b>Total 10 marks</b>	i	02			
	ii	03			
04.	i	02	iii	05	
	ii	02		<b>Total 10 marks</b>	
	iii	02			
	iv	02			
	v	02			
<b>Total 10 marks</b>					

**Marks for Paper I - 40**

**Marks for Paper II - 60**

**Total marks - 100**



**G.C.E. (O/L) EXAMINATION – 2019**  
**86 – HEALTH AND PHYSICAL EDUCATION**

**Paper II**

**Marking Scheme**

*\* Answer five questions only, selecting question No. 1, two questions from Part I and two questions from Part II.*

**Question No. 01 – Compulsory question**

**Objective: To investigate the ability to work toward total health**

1. Kumari, who is studying in Grade 11, has a weight appropriate for her height. She also demonstrates psycho-social changes such as (having innovative ideas) and enjoying the company of peers. Kumari's BMI value falls in the green zone of the BMI chart. Kumari regularly engages in exercises such as jogging to maintain a good health-related physical fitness level.

To enjoy the pleasures of nature, as an outdoor activity, she organized a jungle exploration together with friends in her class. When preparing the lists, she included information such as the name and the class of the participants in the participant information sheet, and included items such as potable drinking water and food in the list of items to be taken for the journey.

Provide short answers to questions (i) to (x) based on the above incident.

- (i) (a) Name the stage of life to which Kumari belongs.  
(b) Mention the age range of the stage of life to which Kumari belongs, according to the definition of World Health Organization (WHO).
- (ii) Write down **two** characteristics other than those mentioned in the event, which can be used to identify the physical fitness level of Kumari, who is in the green zone of the BMI chart.
- (iii) Write down **two** physical changes that can be seen in Kumari, which are **not** mentioned in the incident.
- (iv) Mention **two** psycho-social changes that can be occurred in Kumari, except the changes mentioned in the incident.
- (v) Write **two** exercises other than jogging that Kumari can engage in, to maintain health-related physical fitness.
- (vi) In addition to the benefit mentioned in the incident, write down **two** other benefits that the Grade 11 students can gain by outdoor education.
- (vii) Mention **two** actions other than engaging in exercises, which Kumari can follow to develop health-related physical fitness.
- (viii) Mention **two** other important facts that should be included in the participant information sheet prepared by Kumari and her classmates.
- (ix) List **four** other items that they would include in the list of items to be taken for the jungle exploration.
- (x) Give **two** benefits they can gain by working as a team when organizing the jungle exploration.  
(02 × 10 = 20 marks)

(i)

- (a) Adolescence
- (b) 10 – 19 Years

**01 Mark for each correct answer; 01 × 2 = 02 marks**

(ii)

- Has a height/weight appropriate for the age
- Efficient/active
- Has a good health
- Less prone to diseases

***01 Mark for each correct answer; 01 × 2 = 02 marks***

(iii)

- Development of breasts
- Broadening of hips
- Increased deposition of subcutaneous fat
- The appearance of axillary and pubic hair
- An increase in the size of genitalia
- The appearance of acne on the face
- An increase in perspiration and body odour (as a result of increased perspiration)
- Beginning of menstruation
- Production of vaginal secretions .....

***01 Mark for each correct answer; 01 × 2 = 02 marks***

(iv)

- Willingness to engage in social service
- Standing against injustice
- Attempting to innovate and explore
- Attempting to take her own decisions
- Desire to showcase talents and become outstanding
- Attraction towards the opposite sex
- Enthusiastic towards romantic relationships
- Develop sexual feelings
- Prefers adult company
- Shows an interest in aesthetic activities .....

***01 Mark for each correct answer; 01 × 2 = 02 marks***

(v)

- Brisk walking
- Cycling
- Swimming
- Aerobic exercises and aerobic dancing .....

***01 Mark for each correct answer; 01 × 2 = 02 marks***

(vi)

- Provides an opportunity to gain pleasure
- Provides an opportunity to identify the environment
- Provides an opportunity to understand the challenges associated with nature
- Develops the ability to face challenges
- Develops exploration skills

- Develops self-confidence
- Develops leadership skills
- Develops a collective understanding
- Develops decision-making skills
- Develops the ability to use substitutes to get the things done
- Develops problem-solving skills .....

***01 Mark for each correct answer; 01 × 2 = 02 marks***

(vii)

- Getting adequate nutrition
- Getting adequate sleep
- Getting adequate rest
- Stress management .....

***01 Mark for each correct answer; 01 × 2 = 02 marks***

(viii)

- Address
- Contact phone number (if available)
- Name of a person to be informed in case of an emergency
- Address of a person to be informed in case of an emergency
- Phone number of a person to be informed in case of an emergency .....

***01 Mark for each correct answer; 01 × 2 = 02 marks***

(ix)

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• A sufficient amount of cloths</li> <li>• Ropes</li> <li>• A knife</li> <li>• A flashlight (torch)</li> <li>• A compass</li> <li>• A notebook</li> <li>• A mobile phone</li> </ul> | <ul style="list-style-type: none"> <li>• A pen or a pencil</li> <li>• A first aid kit</li> <li>• Equipment needed to make the tent</li> <li>• A camera</li> <li>• The road map</li> <li>• A pocket radio</li> <li>• Binoculars .....</li> </ul> |
|--|---|

***½ Marks for each correct answer; ½ × 4 = 02 marks***

(x)

- Get an opportunity to listen to ideas of others
- Develop the skill of respecting others' ideas
- Get an opportunity to express own views
- Develop the skill to work collectively (as a team)
- Develop leadership skills
- Develop the ability to become a good follower
- Develop decision-making skills
- Develop problem-solving skills
- Develop positive interpersonal skills



- Develop sharing and caring skills
- Ability to enhance self-potential
- Develop empathy
- Develop communication skills .....

*01 Mark for each correct answer; 01 × 2 = 02 marks*

*Total marks for the question: 02 × 10 = 20 marks*

**To include modifications if any**

### Part I

*Answer two questions only.*

#### Question No. 02

**Objectives: To investigate the ability to work towards implementing health promotion**

2. The newly-appointed, efficient principal of Kurulugama Vidyalaya, which is a school with limited resources, is attempting to convert the school into a Health Promotion School with the help of Grade 11 students.
    - (i) Mention **two** policies that you would suggest to the principal to enhance health promotion of Kurulugama Vidyalaya. (02 marks)
    - (ii) State **three** actions that can be taken to build a mental environment favourable for health promotion of the students of this school. (03 marks)
    - (iii) Describe an activity that can be done with the contribution of the school community including parents to prevent smoking and alcohol consumption among students. (05 marks)
- (i)
- Provide clean drinking water facilities within the school
  - Establish a healthy canteen
  - Provide students with adequate knowledge of health
  - Build an accident-free school environment
  - Provide school dental service to students below 12 years
  - Implement a proper waste management plan
  - Provide proper sanitation facilities
  - Make the school a polythene-free zone
  - Arrange the classrooms to meet the requirements of students .....

*01 Mark for each correct answer; 01 × 2 = 02 marks*

(ii)

- Make the school environment attractive to students
- Provide facilities required to conduct sports activities
- Prevent students from humiliation
- Prevent bullying
- Promote gardening within the school
- Treat all students equally
- Implement a counselling service for students to discuss their problems
- Provide a stress-free environment within the school .....

***01 Mark for each correct answer; 01 × 3 = 03 marks***

(iii)

E.g.:

- With the help of resource persons such as doctors, organize programmes to educate students about the negative consequences and risks associated with smoking and alcohol consumption
- Ban the alcohol and cigarette sales outlets operating within the school area with the help of the police station, Public Health Inspectors (PHI), VIPs and the government

***Allocate marks appropriately so that a maximum of 05 marks is awarded for an answer that describes any suitable activity consisting of information similar to those mentioned above***

***Total marks for the question: 02 + 03 + 05 = 10 marks***

**To include modifications if any**

**Question No. 03****Objective: To investigate the ability to practice good habits related to nutrition**

3. School medical tests have revealed that most of the students of Bharathi Vidyalaya are suffering from micronutrient deficiency diseases including Bitot spots.
- (i) Name **three** other micronutrient deficiency diseases that the students of Bharathi Vidyalaya could be suffering from. (02 marks)
- (ii) Mention separately, one micronutrient that could be the cause for each of the diseases you named in (i) above. (03 marks)
- (iii) Mention **two** actions that can be taken to assure food safety during each of the following situations. (05 marks)
- |                                    |                     |
|------------------------------------|---------------------|
| (a) Choosing foods for consumption | (b) Food production |
| (c) Food transportation            | (d) Food storage    |
| (e) Food processing                |                     |

(i)

- Thyroxine deficiency / Cretinism / Goiter
- Anaemia
- Night blindness
- The weakening of bones and teeth
- Pellagra
- Beriberi
- Inflamed corners of mouth

*02 Marks for listing 03 diseases correctly;  
01 Mark for listing 02 diseases correctly;  
½ Marks for listing 01 disease correctly*

(ii)

- Thyroxine deficiency / Cretinism / Goiter – Iodine (I<sub>2</sub>)
- Anaemia – Iron (Fe)
- Night blindness – Vitamin A
- The weakening of bones and teeth – Calcium (Ca)
- Pellagra / Beriberi / Inflamed corners of mouth – Vitamin B

*01 Mark for each correct answer; 01 × 3 = 03 marks*

(iii)

- (a) Selecting foods for consumption
- Select natural foods containing fibre
  - Select fresh fruits and vegetables
  - Use home-grown foods as much as possible
  - Select nutrient-rich fruits
  - Minimize consumption of instant foods and junk food
  - Avoid choosing foods high in fats, sugar and salt



- Select legumes
- Avoid choosing foods with harmful flavouring agents, pesticides and chemicals
- Minimize the consumption of wheat flour-based products
- Consume natural flavours instead of artificial flavouring agents (e.g., garlic, ginger, curry leaves, Pandan leaves (*rampe*), Garcinia (*goraka*), cinnamon, coriander)
- Choose the five dairy products (*pas go rasa*: milk, curd, cheese, whey, ghee) when selecting milk products
- Choose lean, fresh meat when selecting meats
- Choose fresh, small fish as much as possible
- Select fresh fruits by examining the colour, odour and texture
- Avoid choosing crushed, bulged or dented cans when selecting canned foods
- Avoid choosing expired food items
- Examine the list of ingredients and select suitable foods
- Select low-sugar foods .....

(b) Food production

Within the farmland

- Adding pesticides according to recommended standards
- Use natural pest-control methods
- Use organic fertilizers
- Ensure cleanliness of farming equipment and farmland

Within the factory

- Ensure cleanliness of raw ingredients
- Ensure cleanliness of the manufacturing environment
- Ensure cleanliness of food processing equipment
- Maintaining personal hygiene of staff members
- Using recommended flavouring agents and food colourants in recommended quantities .....

(c) Food transportation

- Use wooden boxes and plastic crates to prevent bruises and scratches
- Avoid stacking boxes too high
- Use temperature settings appropriate for food items
- Use covers to prevent contamination
- Use natural protective methods instead of chemical preservatives as much as possible .....

(d) Food storage

- Arrange items on the shelves according to their expiration dates
- Use measures to prevent pest attacks (e.g. cockroaches, rats, weevils and termites)

- Maintain the correct temperature within the store (depending on the type of food)
- Use refrigerators and freezers correctly
  - Store the food items in appropriate locations of the refrigerator
  - Foods that require refrigeration or freezing must be kept at the required temperature throughout 24 hours
  - Refrigerators should not be switched off during the night
  - Foods and beverages should not be stored together with substances such as toxic materials, medications and aromatics
  - Meat and fish should not be stored with ice cream .....

(e) Food processing

- Avoid using damaged foods or foods attacked by pests
- Avoid using spoiled or mouldy foods
- Keep pets away from the processing area
- Wash hands well before preparing foods
- Clean green leafy vegetables by soaking in saltwater
- Scrub and wash the outer skin of fruits
- Wash eggs before breaking
- Cut fruits and vegetables just before cooking
- Do not re-use oil for frying
- Use clean bowls and correct cooking methods (e.g. keep the lid open when boiling manioc) .....

***The correct answer should consist of 10 actions: 02 actions for each of the five situations; ½ marks for each correct answer; ½ × 10 = 05 marks***

***Total marks for the question: 02 + 03 + 05 = 10 marks***

**To include modifications if any**

**Question No. 04**

**Objective: To investigate the skills required to overcome challenges faced during day-to-day life**

4. Briefly explain the actions that can be taken to overcome the following challenges successfully.
- (i) Your friend seeks your advice on what he/she should do to show his/her best performance at the G.C.E.(O/L) Examination as well as at the All Island School Games.
  - (ii) You notice that your little sister is getting ready to go to sleep without brushing her teeth after dinner on several days.
  - (iii) You notice that your elder brother is getting ready to ride a motor bicycle without wearing a helmet.
  - (iv) During a trip you went on with your parents, you observed that a group of people were illegally cutting trees in the nearby forest.
  - (v) Although your school has kept labelled dustbins with three colours to dispose of different types of garbage as a waste management practice, you observe that a group of students dump all types of garbage to one dustbin. (02 × 5 = 10 marks)

(i)

- I will advise him on how he can use time management to balance sports and studies and achieve success in both areas.

(ii)

- I will explain that if she does not brush her teeth before going to sleep at night, it can deteriorate her oral health.
- I will direct her to follow the correct procedure when brushing teeth.
- I will explain that it is compulsory to brush teeth twice a day: in the morning and before going to sleep at night

(iii)

- I will tell him that it is essential to wear a helmet if he is riding a motor bicycle.
- I will tell him that carelessly riding a motor bicycle without wearing a helmet could result in accidents.
- I will explain that failing to adhere to road rules could bring harmful effects to him as well as others.
- I will remind him that if he does not follow rules, the police will capture him and ask him to pay a fine.
- I will ask him not to forget wearing a helmet in future.

(iv)

- Give a call to 119 and inform the responsible persons.
- Record the incident using a camera/mobile phone.
- Inform the relevant authorities through parents.



(v)

- I will explain to them that what they have done is wrong, and ask them not to do it again. I will advise them to follow the correct procedure when disposing of garbage.

*Maximum 02 marks for each answer that implies a similar meaning*

*Total marks for the question: 02 × 5 = 10 marks*

**To include modifications if any**

### Part II

*Answer two questions only.*

### Question 05

#### Objective: To investigate skills related to athletics

5. (i) Two techniques used by the two athletes No. 15 and No. 20 during their events are given below.

Athlete No. 15 – Hitch kick technique

Athlete No. 20 – Fosbury Flop technique

Write down separately, the events of the two athletes.

*(02 marks)*

- (ii) A draft results sheet prepared by a judge who judged a high jump event is given below.

Athlete No.	Height					Failures	Re-jumps		Place
	1.76	1.80	1.84	1.88	1.91		1.89	1.91	
52	0	×0	0	×0	×××	2	0	×	
64	–	×0	–	×0	×××	2	0	0	
76	–	0	×0	×0	×××	2	×		
88	–	×0	×0	×0	×××	3			

0 = Successful jump

× = No jump

– = Pass

According to the above results sheet, write down the numbers of athletes who first, second and third places separately.

*(03 marks)*

- (iii) If you have been provided a suitable playground and the following equipment, design and describe **two** activities that are suitable to train beginner athletes for hurdles.

- Lime to mark the play area
- Some cardboard boxes with a considerable height (depending on the number of athletes)
- Approximately 3 m long pieces of rope (depending on the number of athletes)

*(05 marks)*

(i)

- Athlete No. 15 – Long jump
- Athlete No. 20 – High jump

*01 Mark for each correct answer;  $01 \times 2 = 02$  marks*

(ii)

- 1<sup>st</sup> Place – No. 64
- 2<sup>nd</sup> Place – No. 52
- 3<sup>rd</sup> Place – No. 76

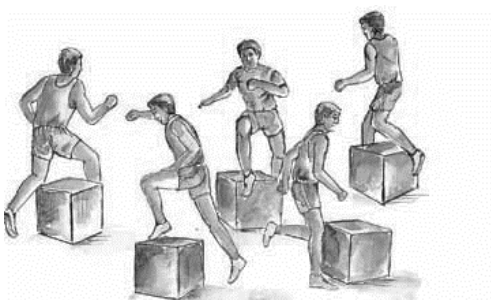
*01 Mark for each correct answer;  $01 \times 3 = 03$  marks*

(iii)

Examples for activities:

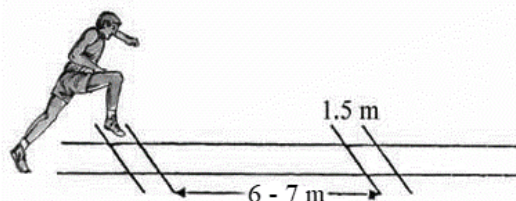
Activity 1:

- Place some obstacles like cardboard boxes in a limited area of the playground and run freely while jumping over the boxes repeatedly (as shown in the figure).



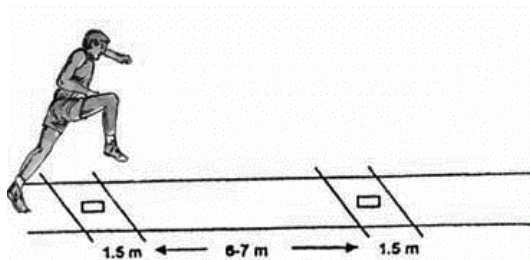
Activity 2:

- Mark 6 or 7 m gaps and 1.5 m gaps on the ground as shown in the figure. Run 6–7 m gaps in three steps by jumping over the 1.5 m gaps.



Activity 3:

- Place some small obstacles in 1.5 m gaps and continue doing the same activity.



*2½ Marks for each correct answer describing a suitable activity;  $2\frac{1}{2} \times 2 = 05$  marks*

*Total marks for the question:  $02 + 03 + 05 = 10$  marks*

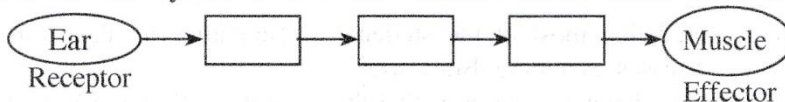
**To include modifications if any**

**Question No. 06**

**Objectives: To investigate the ability to apply biomechanical and physiological principles for sports activities**

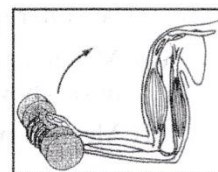
6. (i) Mention **two** characteristics of the muscle fibre type that can be found in abundance in the legs of a marathon runner. (02 marks)

(ii) Complete the following diagram which shows how a nerve impulse is transmitted through the nervous system after a short-distance runner hears the sound of the gun at the start. (03 marks)



(iii) The figure shows how an athlete lifts a dumb-bell by bending the lower arm at the elbow.

- (a) As which type of a lever does the lower arm act in this instance?
- (b) Copy the figure given in the box to your answer script, and mark the positions of the fulcrum, the load and the effort during this activity.



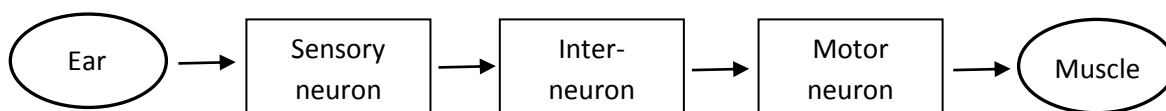
(05 marks)

(i)

- Red in colour
- Limited glycogen stores
- Lower contraction rate
- Aerobic respiration is predominant (more)
- Anaerobic respiration is limited (less)
- Greater resistance to fatigue
- Lesser contribution during high-impact sports
- Greater contribution during endurance activities
- Higher myoglobin content
- Greater utilization of oxygen
- More fat stores
- More mitochondria

**01 Mark for each correct answer; 01 × 2 = 02 marks**

(ii)



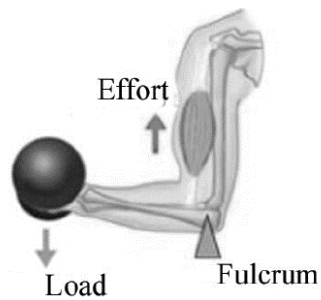
**01 Mark for one correct answer; 01 × 3 = 03 marks**

(iii)

(a) Type III lever

*02 Marks for the correct answer*

(b)



- Load: The dumb-bell
- Fulcrum: The elbow
- Effort: The bicep muscle

*01 Mark for one correct answer; 01 × 3 = 03 marks**Total: 02 + 03 = 05 marks**Total marks for the question: 02 + 03 + 05 = 10 marks***To include modifications if any**



**Question No. 07**

**Objective: To investigate the understanding about skills, Rules and Regulations related to volleyball, netball and football**

7. Answer only **one** question out of the questions **A, B** and **C**.

- A.** (i) As a referee, state the penalty that you would issue for faults committed during volleyball service. (02 marks)
- (ii) During a volleyball match between the teams from North-western province and Western province, a player from North-western team hits the ball after blocking it by himself. Giving reasons, explain your decision during this situation as the referee. (03 marks)
- (iii) If you are assigned to train beginner volleyball players for spiking, describe **two** suitable activities that can be used to practice the spiking skill after training the team for the spiking technique. (05 marks)

(i)

- Award the service and a point to the opponent team

*02 Marks for the correct answer mentioning both facts*

(ii)

- Continue the play because it is not a fault

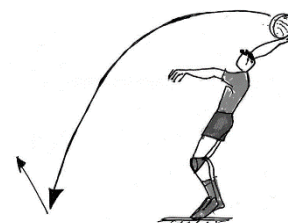
*03 Marks for an answer implying a similar meaning*

(iii)

Examples for activities:

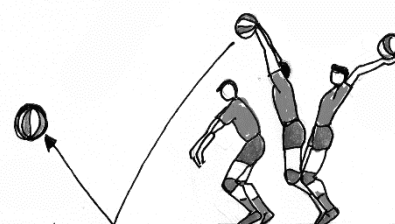
Activity 1:

- Hold the ball with one hand, raise it above the shoulder and fling it onto the ground with great force.



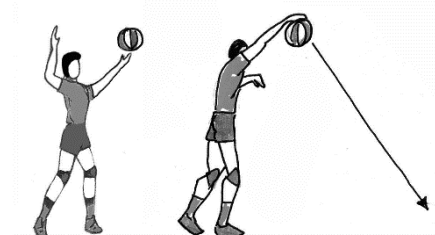
Activity 2:

- Hold the ball with both hands and fling the ball onto the ground with great force dashing forwards with the body bent backwards like a bow.



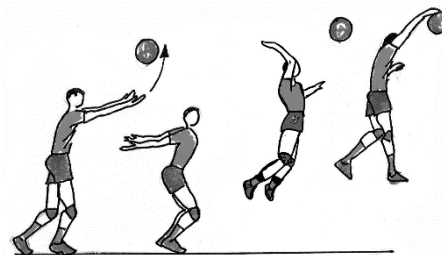
Activity 3:

- Drop the ball that is held with the non-dominant hand and hit it with the dominant hand.

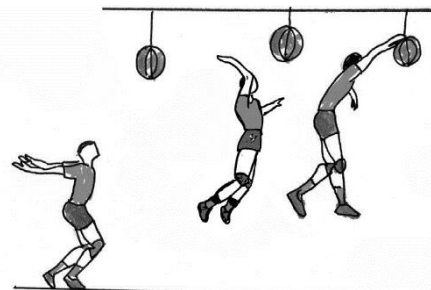


Activity 4:

- Throw the ball upwards with both hands and hit it standing in the same spot.

Activity 5:

- Keep the ball hanging above the head and hit it hard taking off with the correct spiking approach.



*2½ Marks for each answer describing any of the above activities or any other suitable activity;*

$$2\frac{1}{2} \times 2 = 05 \text{ marks}$$

*Total marks for the question: 02 + 03 + 05 = 10 marks*

**To include modifications if any**

- B.** (i) As a referee, mention the penalty that you would issue for personal contact within the goal area when playing netball. (02 marks)
- (ii) During the netball match between Northern and Eastern province teams, the Centre of the Eastern team could not get hold of the ball and as a result, the ball went out of the side line of the centre third. Giving reasons, explain your decision during this situation as the umpire. (03 marks)
- (iii) If you are assigned to train beginner netball players for the chest pass, describe **two** suitable activities that can be used to practice the chest pass after training the players for the technique of the chest pass. (05 marks)

(i)

- Award a penalty pass or shot within the goal area

**02 Marks for the correct answer**

(ii)

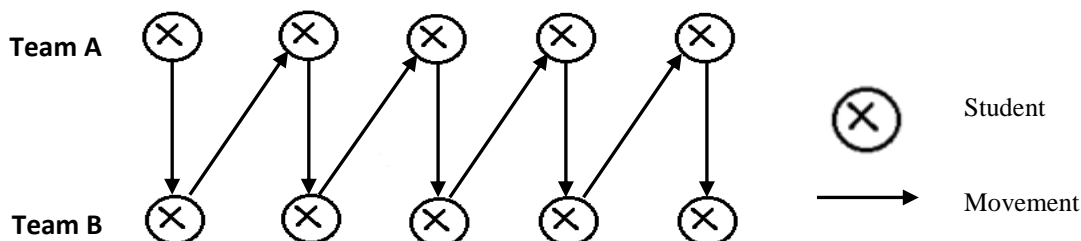
- Out ball; Award a Throw-in to the Centre or any other player of the Northern team who is allowed to play within that area

**03 Marks for the correct answer**

(iii)

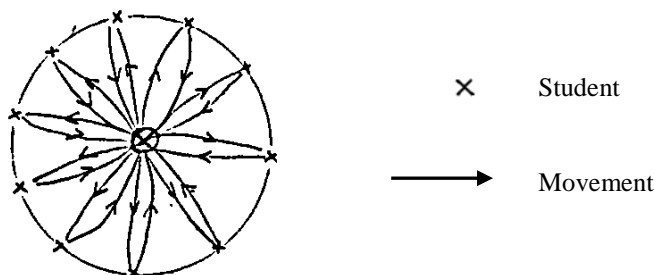
Examples for activities:

Activity 1:



- Divide students into two groups **A** and **B** as shown in the diagram. The first student of **A** team passes the ball to the first student of **B** team using the chest pass. All students of teams **A** and **B** will follow the same procedure with the chest pass as shown in the diagram.

Activity 2:



- Students will be asked to stand in a circle as shown in the diagram. The student standing on the centre will pass the ball to students on the circle using the chest pass and the students pass the ball back to the centre using the same pass. Continue the game so that all students will be given a chance to come to the centre.

**2½ Marks for each answer describing any of the above activities or any other suitable activity;**  
 $2\frac{1}{2} \times 2 = 05$  marks

**Total marks for the question: 02 + 03 + 05 = 10 marks**

**To include modifications if any**

- C. (i) As a referee, mention the penalty that you would issue for offences committed within the goal area when playing football. (02 marks)
- (ii) During a football match between Southern and Central Province teams, the ball left the field passing the touch line after touching the foot of a Central team player. Giving reasons, explain your decision during this situation as the referee. (03 marks)
- (iii) If you are assigned to train beginner football players to control the ball by ‘keeping the foot on the ball’, describe **two** suitable activities that can be used to practice ‘keeping the foot on the ball’, after training the players for the same skill. (05 marks)

(i)

- Award a penalty kick

*02 Marks for the correct answer*

(ii)

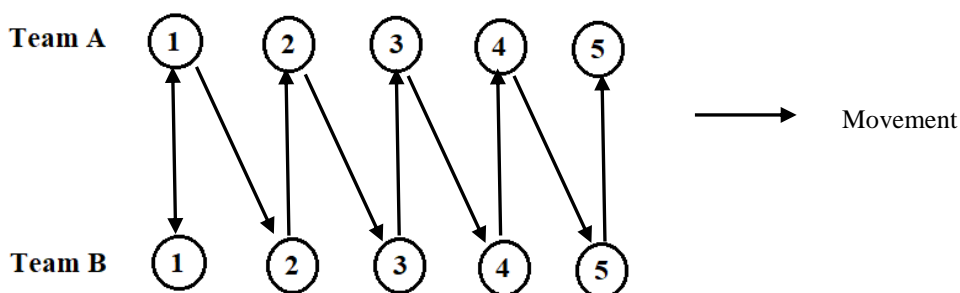
- “Ball out of play” is a fault. Hence, award a Throw-in to a Southern team player at the boundary from where the ball left the field.

*03 Marks for the correct answer*

(iii)

Examples for activities:

Activity 1:

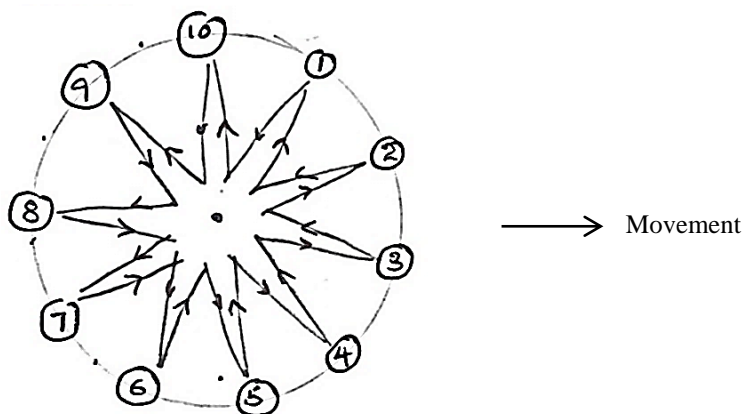


- Divide students into two groups **A** and **B**.

The first student of the **A** team sends the ball to the first students of the **B** team by kicking. The first student of **B** team stops the ball by keeping the foot on the ball and kicks the ball back to the first student of the **A** team.

Then the first student of the **A** team sends the ball to the second student of the **B** team and the process repeats until all students of both teams are given the chance to kick the ball to the opposite team and stop the ball with the foot.



Activity 2:

- Direct the students to stand in a circle as shown in the diagram.

One student should stand in the centre of the circle.

The student in the centre sends the ball to the 1<sup>st</sup> student standing on the circle by kicking the ball.

The 1<sup>st</sup> student who receives the ball must stop the ball by keeping the foot on the ball. Then he sends the ball back to the student in the centre, and the students in the centre must stop the ball by keeping the foot on the ball.

The process is repeated and all students are given a chance to come to the centre of the circle.

***2½ Marks for each answer describing any of the above activities or any other suitable activity;***

***2½ × 2 = 05 marks***

***Total marks for the question: 02 + 03 + 05 = 10 marks***

**To include modifications if any**