SET-4

Series : ONS/1

कोड नं. Code No.

75/1

परीक्षार्थी कोड को उत्तर-पुस्तिका के मुख-पृष्ठ पर अवश्य लिखें ।

Candidates must write the Code on the title page of the answer-book.

- कृपया जाँच कर लें कि इस प्रश्न-पत्र में मुद्रित पृष्ठ 4 हैं।
- प्रश्न-पत्र में दाहिने हाथ की ओर दिए गए कोड नम्बर को छात्र उत्तर-पुस्तिका के मुख-पृष्ठ पर लिखें ।
- कृपया जाँच कर लें कि इस प्रश्न-पत्र में 26 प्रश्न हैं ।
- कृपया प्रश्न का उत्तर लिखना शुरू करने से पहले, प्रश्न का क्रमांक अवश्य लिखें।
- इस प्रश्न-पत्र को पढ़ने के लिए 15 मिनट का समय दिया गया है । प्रश्न-पत्र का वितरण पूर्वाह्न में 10.15 बजे किया जायेगा । 10.15 बजे से 10.30 बजे तक छात्र केवल प्रश्न-पत्र को पढ़ेंगे और इस अवधि के दौरान वे उत्तर-पुस्तिका पर कोई उत्तर नहीं लिखेंगे ।
- Please check that this question paper contains 4 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains 26 questions.
- Please write down the Serial Number of the question before attempting it.
- 15 minute time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the students will read the question paper only and will not write any answer on the answer-book during this period.

शारीरिक शिक्षा (सैद्धान्तिक)

PHYSICAL EDUCATION (Theory)

निर्धारित समय :3 घंटे अधिकतम अंक :70

Time allowed: 3 hours Maximum Marks: 70

सामान्य निर्देश:

- (i) प्रश्न-पत्र में कुल 26 प्रश्न हैं ।
- (ii) **सभी** प्रश्न अनिवार्य हैं।
- (iii) जिन प्रश्नों का 1 अंक है उनका उत्तर लगभग 10-20 शब्दों में दिया जाए ।
- (iv) जिन प्रश्नों के 3 अंक हैं उनका उत्तर लगभग 30-50 शब्दों में दिया जाए।
- (v) जिन प्रश्नों के 5 अंक हैं उनका उत्तर लगभग **75-100** शब्दों में दिया जाए ।

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General Instructions:

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(i) The Question paper consists of 26 questions. (ii) All questions are compulsory. (iii) Answer to questions carrying 1 mark should be in approximately 10-20 words. Answer to questions carrying 3 marks should be in approximately 30-50 words. (iv)(v) Answer to questions carrying 5 marks should be in approximately 75-100 words. ट्रनामेन्ट के फिक्स्चर में सीडिंग क्या होती है ? 1 1. What is 'Seeding' in Fixture for Tournaments? जोखिम-पूर्ण खेलों से आपका क्या अभिप्राय है ? 2. 1 What do you mean by Adventure Sports? क्षुधातिशयता (ब्युलिमिया) क्या होता है ? 3. 1 What is 'Bulimia'? फ्लैट फुट को सही करने के लिए दो व्यायाम सुझाइए । 4. 1 Suggest two exercises for correcting flat foot. भोजन असहिष्णुता (अनुदारता) क्या होती है ? 5. 1 What is Food Intolerance? 'मैनआर्क' शब्द को समझाइये । 6. 1 Explain the term 'Menarch'. बुजुर्ग लोगों के लिए ऊपरी शरीर की शक्ति के लिए कौन से टेस्ट का सुझाव करेंगे ? 7. 1 What test would you suggest to measure upper body strength for aged population? कार्डयक आउटपूट से आपका क्या भाव है ? 8. 1 What do you mean by 'Cardiac Output'? 'लैसरेशन' किसे कहते हैं ? 9. 1 What is 'Laceration'? सर्वाधिक दूरी तय करने के लिए किसी वस्तु को किस कोण पर छोड़ना चाहिए ? 10. 1

2

To cover the maximum distance at what angle an object should be released.

75/1	3 [P.T.	0.
	(iii) What personality trait he had shown by refusing to his team-mates?	
	(ii) What value the boy has shown by refusing to use banned substance?	
	(i) What are the disadvantages for a child to use such banned substance?	
	team but he firmly denied and convinced them that it is against the rules of the game.	
	team-mates tried to convince other fellow team-mates to use certain medicine which one boys did not agree. Other team-mates tried to convince him for the sake of the	
	was targeted to develop selected abilities and preparing for a competition. Some of the	
	Group of young children were undergoing training for a major competition. Training	
	(iii) अपने दल संगियों को इनकार करते हुए उसने अपने व्यक्तित्व की किस विशेषता का प्रदर्शन किया ?	
	(ii) उस लड़के के द्वारा प्रतिबंधित पदार्थ को लेने से इनकार करते हुए किस मूल्य को प्रदर्शित किया गया ?	
	(i) किसी बच्चे के लिए ऐसे प्रतिबंधित पदार्थ का प्रयोग करने के क्या अलाभ हैं ?	
	मना कर दिया और उनको <mark>यह समझाया कि</mark> यह खेल के नियमों के विरुद्ध है । $1 \times 3 =$	= 3
	से मना कर दिया । अन् <mark>य दलसंगियों ने उसे दल</mark> के लिहाज से समझाने का प्रयास किया । परन्तु उसने दृढ़ता से	
	कि अन्य दलसंगियों <mark>को विशेष</mark> मेडिसीन <mark>का उपयोग करने</mark> के लिए मना लिया जाए । जिसे एक लड़के ने लेने	
18.	अल्पवय: बच्चों का ए <mark>क समू</mark> ह किसी मुख्य <mark>प्रतिस्पर्धा के लिए</mark> प्रशिक्षित किया जा रहा था । प्रशिक्षण का लक्ष्य चुनी हुई क्षमताओं क <mark>ा विका</mark> स करना तथा प्रतिस्पर्धा के लिए तैयारी रहा था । कुछेक दलसंगी ने प्रयास किया	
10		
	Write briefly, what is the role of physical activities in improving the quality of life.	
17.	उत्कर्ष जीवन के विकास में शारीरिक क्रियाओं की क्या भूमिका है ? संक्षेप में लिखें ।	3
	technical and infance committee.	
	Your school is organising 'Run for Unity', explain the responsibilities of accreditation, technical and finance committee.	
	समिति की जिम्मेदारियों को विस्तार से समझाइए। 1 × 3 =	= 3
16.	आपका विद्यालय 'रन फॉर यूनिटि' का आयोजन कर रहा है । आप एक्रेडिटेशन, टेक्निकल एवं फाइनेंस	_
1.0		
	Draw a fixture of 6 teams on league basis following the cyclic method.	
15.	साईक्लिक विधि का प्रयोग करते हुए लीग प्रतियोगिता के आधार पर 6 टीमों के लिए फिक्स्चर तैयार करें ।	3
	do jou diderstand by 1 ood myths. Discuss bliefly about various 1 ood myths.	
14.	आहार के झूठे विचारों से आप क्या समझते हैं ? आहार के विभिन्न झूठे विचारों के बारे में संक्षेप में लिखें । What do you understand by Food myths ? Discuss briefly about various Food myths.	3
1.4		•
	What are the causes of Bad Postures? Write in brief.	
13.	गलत मुद्राओं (आसनों) के क्या कारण होते हैं ? संक्षेप में लिखिए ।	3
	What is Endurance? How endurance can be developed through Fartlec method?	- 3
12.	सहनशीलता क्या है ? फार्टलैक ट्रेनिंग विधि द्वारा सहनशीलता का विकास किस प्रकार किया जा सकता है ? 1 + 2 =	_ 2
10		
	Explain 1: 1 ratio breathing exercise for reducing anxiety.	
11.	दुष्चिता को कम करने के लिए 1 : 1 अनुपात वाली श्वास व्यायाम को समझाइये ।	1

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	What do you mean by the term Energy? Discuss about kinetic and potential energy with suitable example from sports.	
26.	शब्द एनर्जी (कार्यशक्ति) से आपका क्या भाव हैं ? कायनैटिक (गतिक) और पोटैन्शियल (स्थितिज) एनर्जी (कार्यशक्ति) के बारे में खेलों से उपयुक्त उदाहरण देकर समझाइए ।	5
	What is the impact of high altitude on Athletes ? What measures would you suggest to reduce its impact.	
25.	खिलाड़ियों पर हाई एल्टिट्यूड का क्या असर होता है तथा आप इसके प्रभाव को कम करने के लिए क्या सुझाव देंगे ।	5
	What do you mean by coping ? Discuss in detail about the problem focused and emotion focused coping strategies.	
	1+2+2:	= 5
24.	आप कोपिंग से क्या समझते हैं ? समस्या केंद्रित तथा संवेग केंद्रित कोपिंग स्ट्रेटिज को विस्तारपूर्वक लिखें ।	_
24	आप कोणिय से क्या समारावे हैं ? समाराय केंट्रित तथा संतेष केंट्रित कोणिय स्टेरित को विस्तामार्थक दिएवं ।	
	Explain in detail about the effects of regular exercise on Respiratory system.	
23.	श्वास क्रिया संस्थान पर नियमित व्यायाम के प्रभावों के बारे में विस्तारपूर्वक चर्चा करें।	5
	10	
	Discuss in detail about Female Athletes Triad.	
22.	महिला एथलीटों के ट्रायड (त्रयात्मक) के बारे में विस्तारपूर्वक लिखें ।	5
	Discuss in detail about the AAPHER Motor Fitness test specifically mentioning the various items in this test battery and its administration.	
21.	AAPHER गामक टेस्ट बैटरी में शामिल विभिन्न आईटमों और उनके प्रबन्धन का विशेष वर्णन करते हुए इस टेस्ट के बारे में विस्तारपूर्वक लिखें ।	5
	various factors affecting motor development.	
	Elucidate the meaning of motor development in childhood. Discuss in detail about	
20.	बचपन काल में गामक विकास का अर्थ समझाइए, गामक विकास को प्रभावित करने वाले विभिन्न कारकों के बारे में विस्तारपूर्वक चर्चा करें ।	5
	Leaders can be trained through physical education. Justify you answer.	
19.	शारीरिक शिक्षा के माध्यम से लीडर को प्रशिक्षित किया जा सकता है । अपने उत्तर की पुष्टि कीजिए ।	3

SENIOR SCHOOL CERTIFICATE EXAMINATION CODE NO. 75/1

MARKING SCHEME 2016

GENERAL INSTRUCTIONS FOR EXAMINERS:

- 1. ALL THE EXAMINERS SHOULD READ THE "MARKING SCHEME" CAREFULLY AND DISCUSS IT WITH THE HEAD EXAMINER.
- 2. THE MARKING SCHEME IS A GUIDELINE. ANY RELEVANT AND APPROPRIATE INFORMATION PERTAINING TO ANSWER OF A QUESTION, OTHER THAN THAT GIVEN IN THE MARKING SCHEME MAY BE MARKED CORRECT. STUDENTS USING THEIR OWN LANGUAGE FOR EXPLAINING CONCEPTS BE GIVEN DUE WEIGHT AGE.
- 3. MARKS ARE NOT NORMALLY DEDUCTED FOR SPELLING ERRORS BUT IF THE ANSWERS OBLITERATES THE RIGHT CONCEPTS OR MEANING OF CONCEPTS IS DISTORTED, MARKS MAY BE DEDUCTED ACCORDINGLY.
- 4. IF A STUDENT HAS ATTEMPTED BOTH PARTS- QUESTION AS WELL AS ITS CHOICE QUESTION, THE PART SECURING HIGHER MARKS IS TO BE CONSIDERED
- 5. MARKS ARE NOT TO BE DEDUCTED IF ANSWERS ARE NOT WRITTEN ACCORDING TO THE SEQUENCE GIVEN IN THE QUESTION PAPER.
- 6. MARKS ARE NOT TO BE DEDUCTED FOR EXCEEDING THE WORD LIMIT
- 7. ALL THE HEAD EXAMINERS ARE INSTRUCTED THAT WHILE EVALUATING THE ANSWER SCRIPTS/IF THE ANSWERS IS FOUND TO BE TOTALLY INCORRECT, THE (X) SHOULD BE MARKED ON THE INCORRECT ANSWER AND AWARDED '0' MARKS.
- 8. NOTE: AS PER THE ORDERS OF THE HON'BLE SUPREME COURT THE CANDIDATE WOULD BE PERNMITTED TO OBTAIN THE PHOTOCOPY OF THE ANSWERSHEET ON REQUEST OF THE PAYEMENT OF THE PRESCRIBED FEE. ALL EXAMINERS/HEAD EXAMINERS MUST ENSURE THAT EVALUATION IS CARRIED OUT STRICTLY AS PER SUGGESTED VALUE POINTS FOR EACH ANSWERS AS GIVEN IN THE MARKING SCHEME

WISH YOU GOOD LUCK

Code no. 75/1

PHYSICAL EDUCATION (THEORY)

Class: XII 2015-2016 Time allowed: 3 Hrs Max. Marks: 70 Q.1 What is 'Seeding' in a fixture for Tournaments? **(1)** In seeding strong teams/players are arranged in fixture in a manner so that they do not meet each other in the Ans. first round. **Q.2** What do you mean by Adventure Sports? **(1)** Ans. An extreme sport involving strenuous physical activity with an element of fear, thrill, life risk and pleasure, e.g. bungee jumping, river rafting **Q.3** What is 'Bulimia'? **(1)** Ans. Bulimia is an eating disorder under psychological condition in which a person overeats uncontrollably and follows this with behavior designed to prevent weight gain, e.g. over - exercising and purging **Q.4** Suggest two exercises for correcting flat foot. (1/2 + 1/2 = 1)Exercise for correcting flat foot Ans. Picking up marbles with toes 2. Place a towel under the feet and role the towel with toes towards body Sand walk 3. 4. Perform up and down the heels 5. Walking on toes /heels / on inner and outer side of feet To perform Vajrasana Jumping on toes /skipping rope (Any two points from the list) Q.5 What is Food Intolerance? **(1)** A sensitivity to, or an inability to digest, a particular food, ingredient or substance, which means that it should Ans. be excluded from the diet. **Q.6** Explain the term 'Menarche'. **(1)** Ans. Menarche is the first menstruation and the commencement of cyclic menstrual function in female. It usually occurs between 9 to 17 years of age. What test would you suggest to measure upper body strength for aged population? Q.7 **(1)** Ans. The Arm Curl Test is to measure upper body strength for aged populations. **Q.8** What do you mean by 'Cardiac Output'? **(1)** Cardiac output is the volume of the blood pumped by the heart, measured in liters per minute. It is a product of Ans. stroke volume and heart rate. **Q.9** What is 'Laceration'? **(1)** Ans. A laceration is an irregular and jagged wound from a sharp object or sports equipment. Q.10 To cover the maximum distance at what angle an object should be released. **(1)** Ans. An object should be released at the angle of 45°. Q.11 Explain 1: 1 ratio breathing exercise for reducing anxiety. **(1)** Ans. It means a breath of 1:1 would be of equal parts inhalation and exhalation only.

Q.12 What is Endurance? How endurance can be developed through fartlek method?

(1+2=3)

Ans. Endurance is the ability to sustain an activity over a longer period of time, under the condition of fatigue. Endurance can be developed through fartlek method are as follows:

- 1. Endurance develops through Continuous & Interval Training; fartlek combines both training.
- 2. Endurance develops according to duration of activity; fartlek can vary from aerobic walking to anaerobic sprinting.
- 3. Endurance develops according to nature of activity; fartlek can change it according to the surrounding.
- 4. Endurance develops under the condition of fatigue; self discipline plays a vital role in Fartlek training method.
- 5. Fartlek training keeps the heart rate up allowing an athlete to get good cardio-vascular endurance.
- 6. Due to the sprinting interval, it makes the body versatile.
- 7. It is not rigid but flexible in nature.

(Any two to be explain in second part, If only points are mentioned give ½ mark for each point)

Q.13 What are the causes of Bad postures? Write in brief.

(1x3=3)

Ans. Causes of bad posture are as follows

- 1. Hereditary / Congenital
- 2. Improper diet / Low nutritional diet
- 3. Muscle weakness / Poor core stability
- 4. Joint stiffness / Very high toned muscle
- 5. Accident / Diseases
- 6. Lifestyle / Fashion
- 7. Lack of education / awareness of correct posture
- 8. Delicacy and imitation
- 9. Bad habits
- 10. Obesity
- 11. Fatigue
- 12. Lack of rest and sleep
- 13. Lack of proper exercise
- 14. Unsuitable furniture / poor ergonomic
- 15. Poor way of carrying weight

(Any three to be explain, If only points are mentioned give ½ mark for each point)

Q.14 What do you understand by Food myths? Discuss briefly about various Food myths. (1+2=3)

Ans. Food myths mean a legendary story about food with or without a determinable basic of fact or a natural explanation. What to eat, when to eat, and how often to eat are such questions which usually confuse.

Some food myths are as follows:

- 1. Potatoes make you fat
- 2. Drinking water in between your meals will mess up your digestion
- 3. Fat free products will help you in losing weight
- 4. Egg increases cholesterol levels
- 5. The peel of fruits & vegetables contains no nutrients
- 6. Having milk immediately after eating fish
- 7. Starve yourself if you want to lose weight
- 8. Eating ghee after pregnancy
- 9. Exercise makes you to eat more
- 10. It's necessary to have Carbohydrate load before races
- 11. All sports drinks are the same
- 12. Supplement are necessary for maximum performance

(Any two to be explain in second part, If only points are mentioned give ½ mark for each point)

(3)

Q.15 Draw a fixture of 6 teams on league basis following the cyclic method.

Ans. Total number of teams (N) = 6

Total number of matches = N (N-1)/2 = 6(6-1)/2 = 6X5/2 = 30/2 = 15

Number of rounds = N-1 = 6-1 = 5

Fixtures

I Round	II Round	III Round	IV Round	V Round
6 1	5 1	4 1	3 1	2 1
5 2	4 6	3 5	2 4	6 3
4 3	3 2	2 6	6 5	5 4

(Give 1 ½ marks for computation only; 3 marks for fixture or both)

Q.16 Your school is organizing 'Run for Unity', explain the responsibilities of accreditation, technical and finance committee. (1x3= 3)

Ans. Responsibilities of accreditation committee

- 1. Management of accreditation centers during the activity
- 2. Registering all participants with an operational role
- 3. The production and distribution of the validation pass
- 4. Assigning the access rights and privileges to which a participant is entitled

Responsibilities of technical committee

- 1. To ensure that the field of play is safe for competitors and officials
- 2. To apply (not interpret) the Rules without fear or favour
- 3. To ensure the quality and technality of equipments

Responsibilities of finance committee.

- 1. Budgeting and financial planning
- 2. Financial reporting
- 3. Monitoring of internal controls and accountability policies

(Any one responsibility to be explain of each committee, If only points are mentioned give ½ mark for each point)

Q.17 Write briefly, what is the role of physical activities in improving the quality of life. (1x3=3)

Ans. Role of physical activities in improving the quality of life as follows:

- 1. Boosts mental wellness
- 2. Improve physical wellness
- 3. Boosts energy level
- 4. Promotes enthusiasm and optimism
- 5. Counters anxiety and depression
- 6. Helps manage stress
- 7. Releases tension
- 8. Improves self image
- 9. Delays or prevent chronic illness & diseases
- 10. Delay aging

(Any three to be explain, If only points are mentioned give ½ mark for each point)

- Q.18 Group of young children was undergoing training for a major competition. Training was targeted to develop selected abilities and preparing for a competition. Some of the team-mates tried to convince other fellow team mates to use certain medicine which one boy did not agree. Other team-mates tried to convince him for the sake of the team but he firmly denied and convinced them that it is against the rules of the game.
- (i) What are the disadvantages for a child to use such banned substance?
- (ii) What values the boy has shown by refusing to use banned substance?
- (iii) What personality trait he had shown by refusing to his team-mates?

(1X3)

- Ans. (i) -Complications like stroke, psychosis and even death
 - -Sexual dysfunction
 - -Increased heart rate and blood pressure
 - (ii) Respect and follow the rules of the game
 - -Sportsmanship
 - -Morality & Ethical
 - (iii) -Firm
 - -Honest
 - Strong willpower

(Any one point for each section from the list to be explain, If only points are mentioned give ½ marks for each point)

Q.19 Leaders can be trained through physical education. Justify you answer.

(1x3=3)

Ans. Leaders can be trained through physical education are as follows:

- 1. Appointing as a leader or captain of a team
- 2. Assigning challenging duties to draw out the qualities
- 3. Allowing a student to officiate in intramural competition.
- 4. Appointing the student as members / incharges for various school committees.
- 5. Entrusting the responsibility of organizing and conducting games.

(Any three to be explain, If only points are mentioned give ½ mark for each point)

Q.20 Elucidate the meaning of motor development in childhood. Discuss in detail about various factors affecting motor development. (1+4=5)

Ans. Motor development refers to changes in children's ability to control their body's movements like walking, jogging, running, climbing, jumping, throwing etc.

Factors affecting motor development

- 1. Growth of the child
- 2. Gender
- 3. Biological factors
- 4. Environmental factors
- 5. Immunization
- 6. Nutrition
- 7. Cultural factors
- 8. Physical activities
- 9. Opportunities
- 10. Sensory impairments
- 11. Postural deformities
- 12. Obesity

(Any four to be explain, If only points are mentioned give ½ mark for each point)

Q.21 Discuss in detail about the AAPHER Motor Fitness Test specifically mentioning the various items in this test battery and its administration. (5)

Ans. AAPHER Motor Fitness Test Batteries:

- 1. Pull-ups (Boys) / Flexed Arm Hang (Girls)
- 2. Flexed Leg Sit ups
- 3. Shuttle Run
- 4. Standing Long Jump
- 5. 50 yard Dash
- 6. 600 yard Run Walk

(Give 1 mark for each test battery explain; max marks is 5, If only points are mentioned give ½ marks for each point)

Q.22 Discuss in detail about Female Athletes Triad.

(5)

Ans. Female Athletes Triad

- 1. Anaemia
- 2. Oesteoporosis
- 3. Amenorrhoea

(Give 5 marks for three explanations, 3.5 marks for any two explanations and 2 marks for any one explanation; *If only points are mentioned give ½ mark for each point*)

Q.23 Explain in detail about the effects of regular exercise on Respiratory System.

(5)

Ans. Effects of regular exercise on Respiratory System are as follows:

- 1. Increase in tidal air capacity
- 2. Increase in vital air capacity
- 3. Increase in residual air volume
- 4. Increase in size of lungs and chest
- 5. Increase the blood circulation to the respiratory organs
- 6. Improved gas exchange capacity
- 7. Strengthens diaphragm and muscles
- 8. Unused alveolus become active
- 9. Increase in endurance
- 10. Decrease in rate of respiration
- 11. Avoid second wind
- 12. Prevention from diseases
- 13. Faster recovery rate

(Any five to be explain; If only points are mentioned give ½ mark for each point)

Q.24 What do you mean by coping? Discuss in detail about the problem focused and emotion focused coping strategies. (1+4=5)

Ans. Coping is expending conscious effort to solve personal and interpersonal problems, and seeking to master, minimize or tolerate stress or conflict. (1)

Problem focused coping strategies:-

Problem-focused coping targets the causes of stress in practical ways which tackles the problem or stressful situation that is causing stress, consequently directly reducing the stress.It includes the following methods used to manage the stressful situations.

(1)

- 1. Analyses the stressful situation
- 2. Taking control
- 3. Talk to your coach or teacher
- 4. Information seeking
- 5. Know your limits
- 6. Stop worrying about the stressful situation you can't change
- 7. Reset your goal
- 8. Improve physical fitness
- 9. Anticipate the problem
- 10. Build self confidence (Listed any two points)

(1)

> Emotion focused coping strategies:-

Emotion-focused coping involves trying to reduce the negative emotional responses associated with stress such as embarrassment, fear, anxiety, depression, excitement and frustration. It includes the following technique used to manage the stressful situations. (1)

- 1. Using drugs
- 2. Denial of reality
- 3. Meditation, e.g. mindfulness
- 4. Blame
- 5. Vent out of emotions
- 6. Mentally disengaging from stressful situation
- 7. Keeping yourself busy to take your mind off the issue
- 8. Distracting yourself (T.V., eating etc.)
- 9. Praying for guidance and strength
- 10. Crying
- 11. Building yourself up to expect the worse
- 12. Ignoring the stressful situation
- 13. Avoidance

(Listed any two points)

(1)

Q.25 What is the impact of high altitude on Athletes? What measures would you suggest to reduce its impact?

Ans. The impact of high altitude on Athletes:-

At high altitude the availability of oxygen to the body is less than at sea level. At high altitude, the body is forced to produce a greater number of R.B.Cs to transport oxygen in an attempt to meet the oxygen deficiency. At high altitudes athletes may experience sun burns, snow blindness. In fact, exposure to higher altitude may also result in functional disorder as mountain or altitude sickness.

Measures to reduce the impact of high altitude:-

- 1. The most important being slow ascent so that your body can adjust to conditions at the right pace (acclimatize)
- 2. If you develop symptoms of altitude sickness is to stop your ascent and rest at the same altitude.
- 3. If your symptoms are severe, do not improve, or they are getting worse, you need to descend to a lower altitude.

Q.26 What do you mean by the term Energy? Discuss about kinetic and potential energy with suitable example from sports. (1+2+2=5)

Ans. Energy is the capacity to do work.

Kinetic Energy:-

The energy an object has because of its motion is called K.E.

- The kinetic energy of a moving object depends on its speed e.g. If a Javelin travels with maximum speed then it has more K.E. and when touch the ground, it has no K.E.
- The kinetic energy also depends on the mass of the objects e.g. if a shot of 16 lbs and a shot of 8 lbs travel at the same speed, the 16 lbs shot has more K.E. than the 8 lbs shot.

Potential Energy:-

P.E. is the energy stored in an object because of its position or condition. In Archery, when you stretch a bow; it acquires the ability of releasing an arrow with speed. It means that the stretched bow also has P.E. The more it is stretched, the greater the speed with which it can release the arrow. It has the P.E. because of its stretched condition.