



**Paper -II**  
**Physical Education**

Booklet Code

**A**

Test Booklet No.

**SUBJECT CODE :**

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**Roll No. :**

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(Figures as per admission card)

**Roll No. (in words) :** \_\_\_\_\_  
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**OMR Sheet No. :**

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**Name and Signature of Invigilator/s**

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Time : 2 Hours

Maximum Marks : 200

**Number of Pages in this Booklet : 24**

**Number of Questions in this Booklet : 100**

**Instructions for the Candidates**

1. Write your roll number in the space provided on the top of this page.
2. This paper consists of hundred (100) multiple-choice type of questions.
3. At the commencement of examination, the test booklet will be given to you. In the first 5 minutes, you are requested **To Open the Booklet and Compulsorily Examine it as Below:**
  - (i) To have access to the Test Booklet, tear off the paper seal on the edge of the cover page. Do not accept a booklet without sticker seal or open booklet.
  - (ii) Tally the number of pages and number of questions in the booklet with the information printed on the cover page. Faulty booklets due to pages/questions missing or duplicate or not in serial order or any other discrepancy should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Test Booklet will be replaced nor any extra time will be given.
  - (iii) After the verification is over, the Test Booklet Number should be entered in the OMR Sheet and the OMR Sheet Number should be entered on this Test Booklet.
4. Each item has four alternative responses marked (A), (B), (C) and (D). You have to darken the circle as indicated below on the correct response against each item.  
**Example :** (A) (B) (C) (D)  
where (C) is the correct response.
5. Your responses to the questions are to be indicated in the **OMR Sheet kept inside this Booklet**. If you mark at any place other than in the circles, the OMR Sheet will not be evaluated.
6. Read the instructions given in OMR Sheet carefully. Fill the Booklet Code of Paper-II in OMR Sheet **Compulsorily**.
7. Rough Work is to be done in the end of this booklet.
8. If you write your name or put any mark on any part of the OMR Answer Sheet, except for the space provided for the relevant entries, which may disclose your identity, you will render yourself liable to disqualification.
9. You have to return the OMR answer Sheet to the invigilators at the end of the examination compulsorily and must NOT carry it with you outside the Examination Hall.
10. You can take away test booklet and carbon copy of OMR Answer Sheet after the examination.
11. **Use only Blue/Black Ball point pen.**
12. **Use of any calculator, electronic gadgets or log table, etc. is prohibited.**
13. **There is no negative mark for incorrect answer.**





1. Ministry of Youth Affairs and Sports (MYAS) established the Target Olympic Podium Scheme on:
  - (A) August 2015
  - (B) September 2015
  - (C) November 2014
  - (D) September 2014
2. Who is considered as "The father of recreational camping"?
  - (A) Thomas Hiram Holding
  - (B) Johan Welton
  - (C) Admin Hillary
  - (D) Jane Phillips
3. Who has defined Physical Education as "Physical Education is a education through physical activity for the development of the total personality of the child its fullness and perfection in the body, mind and spirit"?
  - (A) National Plan of Physical Education and Recreation, 1956
  - (B) Lumpkin
  - (C) Edward Hitch Cock
  - (D) J.F. William
4. If the venous blood entering the lungs is having 16ml oxygen per 100ml of blood and the arterial blood leaving from lungs have 20ml oxygen per 100ml of blood. The oxygen consumption of the body is 200ml per minute, then the cardiac out put will be:
  - (A) 4500ml
  - (B) 5000ml
  - (C) 3500ml
  - (D) 4000ml
5. If 5 - pound of weight is raised 10 ft. on 2 seconds then the power used in this act will be:
  - (A) 20 ft-lb/Sec.
  - (B) 1 ft-lb/Sec.
  - (C) 25 ft-lb/Sec.
  - (D) 4 ft-lb/Sec.
6. During anaerobic glycolysis, glucose break down into pyruvic acid this reaction results in the production of :
  - (A) 2 ATPs
  - (B) 3 ATPs
  - (C) 4 ATPs
  - (D) 5 ATPs
7. Coracobrachialis muscle is located at which part of shoulder Joint?
  - (A) Posterior
  - (B) Superior
  - (C) Anterior
  - (D) Inferior
8. The Articulating Surfaces of elbow joint is :
  - (A) Acetabulum
  - (B) Medial and lateral condyles
  - (C) Glaniod Cavity
  - (D) Trochlea and Capitulum
9. Arms stroke during in swimming an example of which of the following type of contraction?
  - (A) Isotonic
  - (B) Isometric
  - (C) Eccentric
  - (D) Isokinetic



10. A researcher interested in the relationship between physical stimuli and our psychological experience would be studying:  
(A) Extra sensory perception  
(B) Auditory realism  
(C) Psychophysics  
(D) Proprioception
11. If a person's weight is 70 kg bicycles at 10 mph, which is listed as 10 MET (Metabolic Equivalent) activity, then his kCal expenditure will be :  
(A) 06.9 kCal per min.  
(B) 11.7 kCal per min.  
(C) 7.0 kCal per min.  
(D) 10.7 kCal per min.
12. Which of the following is a type of Alpha-Keratin?  
(A) Protein  
(B) Carbohydrate  
(C) Vitamin  
(D) Fat
13. Which one of the following is a pair of viral diseases?  
(A) Common cold, AIDS  
(B) Ringworm, AIDS  
(C) Dysentery, Common cold  
(D) Tuberculosis, Typhoid
14. How should the concepts of health, disease and environmental determinants of health be included in the curriculum of health and physical education?  
(A) On secondary level only  
(B) Text lessons  
(C) Physical activities  
(D) Experiential learning from primary classes
15. Circuit training was developed by:  
(A) Herbert Spencer  
(B) C.A. Bucher  
(C) Morgan and Adomson  
(D) Aristotle
16. The full form of the 'FITT' principle in sports training is :  
(A) Frequency, intensity, time, type  
(B) Frequency, intensity, time, test  
(C) Full range of motion, intensity, time, type  
(D) Full range of motion, intensity, time, test
17. Which of the following curriculum Model takes into account information from the active learner and pays close attention to how well the goals and objectives of the curriculum are supported by the experiences and activities provided?  
(A) Kerr model  
(B) Hilda Taba model  
(C) Saylor and Alexendar model  
(D) Ralph Tyler model
18. Who is called as father of scientific physical education in India?  
(A) H.C. Buck  
(B) James Williams  
(C) H.M. Barrow  
(D) J.B. Nash
19. Who has quoted "Existence precedes and commands essence" which is the foundation of existentialism is given by?  
(A) Kierkegaard  
(B) William James  
(C) Thomas Aquinas  
(D) Jean Paul Sartre



20. Which of the following is not a technique of probability sampling?
- (A) Systematic sampling
  - (B) Cluster sampling
  - (C) Sequential sampling
  - (D) Multistage sampling
21. Which of the following is not true in relation to normal probability curve?
- (A) The quartile deviation of normal distribution is  $\frac{1}{4}$ .
  - (B) The curve is asymptotic to the base line.
  - (C) The normal curve is a bilateral symmetrical curve about the mean.
  - (D) The point of inflexion on the curve are at  $-1$  sigma and  $+1$  sigma.
22. In survey research, which of the following is the most cost-effective way of data collection?
- (A) Physical testing
  - (B) Interview
  - (C) Questionnaire
  - (D) Personal interaction
23. Which of the following is least objective in nature?
- (A) Concurrent validity
  - (B) Construct validity
  - (C) Predictive validity
  - (D) Face validity
24. Cardio Respiratory efficiency is best measured through :
- (A) Indiana Motor Fitness Test
  - (B) Harward Step Test
  - (C) John-Methany Test
  - (D) JCR Test
25. The value of Skewness of Normal Probability curve is:
- (A)  $-1$
  - (B)  $0.263$
  - (C)  $0.623$
  - (D) Zero
26. The variable x and y in regression analysis also known as:
- (A) Response and Explanatory variable
  - (B) Independent and Predictor variable
  - (C) Dependent and Response variable
  - (D) Explanatory and Predictor variable
27. A research intends to explore the result of possible factors for the organization of effective mid-day meal interventions. Which research method will be most appropriate for this study?
- (A) Descriptive survey method
  - (B) Historical method
  - (C) Ex-post facto method
  - (D) Experimental method



28. Considering the following statements related to philosophy of physical education and find the correct statements:

1. Humanism is a philosophy of reason and science in the pursuit of knowledge.
2. Naturalism set norms and standards of behaviour, achievements, conduct and morality.
3. Pragmatism is not a orthodox philosophy but a dynamic concept predating even idealism and realism.
4. Idealism looks upon nature as the prime mover of all life activities.

Choose the correct answer from the options given below:

- (A) Only 1, 2 and 3 are correct
- (B) Only 2, 3 and 4 are correct
- (C) Only 1 and 3 are correct
- (D) Only 2 and 4 are correct

29. Consider the following statements related to 1896 Olympics and find the correct statements:

1. In cycling events 1000m and 87km road race were conducted.
2. In Athletics 100m, 200m and 3000m races were conducted.
3. In weightlifting, one hand-lift and two hand-lift were conducted.
4. In Swimming, 100m and 1500m freestyle were conducted.

Choose the correct answer from the options given below:

- (A) 1, 3 and 4 Only
- (B) 1, 2 and 3 Only
- (C) 2, 3 and 4 Only
- (D) 2 and 3 Only

30. Consider the following statements related to Modern Olympics and find the correct statements:

1. In 1904, St. Louis Olympic Games were only 8 countries participated.
2. In 1912, Olympic Games were conducted at Stockholm.
3. In 1900, first women made their debut in tennis and golf competition.
4. The 1940, Berlin Olympic Games were cancelled due to World War II.

Choose the correct answer from the options given below :

- (A) 1, 3 and 4 Only
- (B) 1, 2 and 3 Only
- (C) 2, 3 and 4 Only
- (D) 2 and 3 Only

31. In respiration Muscles with Primary function are:

1. Abdominals
2. Diaphragm
3. Serratus Posterior Inferior
4. Levatores Costorum
5. Pectoralis Major
6. Serratus Posterior Superior

Choose the correct answer from the options given below :

- (A) Only 1, 2, 3, 4 and 5 are correct
- (B) Only 2, 3, 5 and 6 are correct
- (C) Only 1, 2, 4 and 5 are correct
- (D) Only 2, 3, 4 and 6 are correct



32. Consider the following statements and find the correct statement:

1. Stability of an object is directly proportional to its mass.
2. Stability of an object is directly proportional to its width of base.
3. Stability of an object is Inversely proportional to its height of Center of gravity.
4. There is negatively relationship between the physical and emotional state of a person.

Choose the correct answer from the options given below:

- (A) 1, 3 and 4 Only
- (B) 1, 2 and 3 Only
- (C) 2, 3 and 4 Only
- (D) 2 and 3 Only

33. Consider the following statements and find the correct statements:

1. Specific gravity is the ratio of the weight of an object to the weight of an equal water.
2. An object having specific gravity one or less will float.
3. Density is the ratio of volume divided by mass.
4. If density of object less then fluid then it will float.

Choose the correct answer from the options given below:

- (A) Only 1, 3 and 4 are correct
- (B) Only 1, 2 and 3 are correct
- (C) Only 2, 3 and 4 are correct
- (D) Only 1, 2 and 4 are correct

34. Considering the following statements related to Respiratory Quotient (RQ) are correct statements:

1. It is equal to the volume of carbon dioxide produced divided by volume of oxygen consumed.
2. It is equal to the volume of oxygen consumed divided by volume of carbon dioxide produced.
3. When fat is oxidized the RQ is less than one.
4. When carbohydrate is oxidized the RQ is one.

Choose the correct answer from the options given below:

- (A) Only 1 and 4 are correct
- (B) Only 2, 3 and 4 are correct
- (C) Only 1 and 3 are correct
- (D) Only 1, 2 and 4 are correct

35. Consider the following statements and find the correct statements:

1. In arterioles the resistance to blood flow is very high
2. During rest, venous system generally contain more blood than arterial system.
3. During rest, most of the true capillaries are closed and are not being used.
4. During rest venous and arterial system contains equal blood.

Choose the correct answer from the options given below:

- (A) Only 1, 2 and 4 are correct
- (B) Only 1 and 3 are correct
- (C) Only 2 and 4 are correct
- (D) Only 1, 2 and 3 are correct



36. Consider the following statements related to Normal ECG and find the correct statements:
1. P wave is of 0.18 sec.
  2. T wave is of 0.10 sec.
  3. ST interval is of 0.28 sec.
  4. QT interval is of 0.36 sec.
- Choose the correct answer from the options given below:
- (A) Only 1, 3 and 4 are correct  
(B) Only 1, 2 and 3 are correct  
(C) Only 2, 3 and 4 are correct  
(D) Only 1 and 3 are correct
37. Which of the following are theories of motivation?
1. Maslow's Theory of Hierarchical Needs
  2. Herzberg's two-factor Theory
  3. Social Learning Theory
  4. Vroom's Theory of Expectancy
- Choose the correct answer from the code given below:
- (A) (1), (3) and (4)  
(B) (1), (2) and (4)  
(C) (2), (3) and (4)  
(D) (1), (2) and (3)
38. Below mentioned are the traits of personality:
1. Extraversion
  2. Agreeableness
  3. Cooperativeness
  4. Neuroticism
- Choose the correct answer from the code given below:
- (A) (1), (3) and (4)  
(B) (1), (2) and (3)  
(C) (2), (3) and (4)  
(D) (1), (2) and (4)
39. On the basis of magnitude or quality, transfer of training is of the following types:
1. Total transfer
  2. Positive transfer
  3. Negative transfer
  4. Zero transfer
- Choose the correct answer from the code given below:
- (A) (1), (3) and (4)  
(B) (1), (2) and (3)  
(C) (2), (3) and (4)  
(D) (1), (2) and (4)
40. Physical symptoms in children under 5 years of age include:
1. Children require frequent rest period
  2. Eye-hand coordination remain full developed
  3. Signs of gender difference do not emerge
  4. The muscles of the hands and fingers are fully developed.
- Codes:**
- (A) 1 and 2  
(B) 2, 3 and 4  
(C) 1, 3 and 4  
(D) 2 and 4
41. Underneath mentioned are the objectives of the WHO:
1. Monitoring public health risks
  2. Universal healthcare
  3. Coordinating responses to health emergencies
  4. Provision of food security
- Choose the correct answer from the code given below:
- (A) (1), (3) and (4)  
(B) (1), (2) and (3)  
(C) (2), (3) and (4)  
(D) (1), (2) and (4)



42. Pollution can be controlled by applying the following preventive measures:

1. Avoid the usage of energy resources
2. Numerical standards for environmental pollution
3. Regulation of emissions of polluting substances
4. Subsidy schemes for businesses to reduce pollution levels

Choose the correct answer from the code given below:

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

43. Protein-energy malnutrition (PEM) is a condition which results in the following bodily disorders:

1. Kwashiorkor
2. Marasmus
3. Ketosis
4. Underweight

Choose the correct answer from the code given below:

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

44. For adaptation to take place, the following must be given strict attention both during the planning and the implementation stages:

1. Efficiency
2. The stimulus magnitude more commonly referred to as overload
3. Accommodation
4. Specificity

Choose the correct answer from the code given below:

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

45. Periodization is defined as the planned manipulation of training of the ensuing variables in order to maximize training adaptations and to prevent the onset of overtraining syndrome:

1. Load
2. Rehabilitation
3. Sets
4. Repetitions

Choose the correct answer from the code given below:

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



46. What are the various talent identification and selection schemes in India?

1. Khelo India
2. NSTC
3. TOPS
4. Boys Sports Companies in the Army

Choose the correct answer from the code given below:

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

47. A research is said to be an experimental research when the following three conditions are satisfied:

- (a) Have full control on the experiments by eliminating or controlling the effects of extraneous variable.
- (b) The researcher is not allowed to manipulate the independent variables in order to see its effect on the dependent variable.
- (c) The researcher is allowed to manipulate the independent variables in order to see its effect on the dependent variable.
- (d) Effect is observed in the dependent variable due to the manipulation of the independent variable.

Choose the correct option:

- (A) a, c and d  
(B) a, b and c  
(C) a, b and d  
(D) b, c and d

48. Identify the correct statements for data types:

- (a) Metric data can be classified into interval and ratio
- (b) Non-metric data can be classified into interval and ratio
- (c) Metric data can be classified into nominal and ordinal
- (d) Non-metric data can be classified into nominal and ordinal.

Choose the correct option :

- (A) b and c are correct  
(B) a and b are correct  
(C) c and d are correct  
(D) a and d are correct

49. Which of the following is correct for type 1 error in hypothesis testing?

- (a) Rejection of null hypothesis when it is true
- (b) Accepts null hypothesis when it is false
- (c) The probability of type 1 error is  $\alpha$
- (d) The probability of type 1 error is  $\beta$

Choose the correct option :

- (A) Only a is true  
(B) Only a and d is true  
(C) Only b and d is true  
(D) Only a and c is true



50. Find the correct combination of the components of health related fitness, using the codes given below:

- (a) Flexibility
- (b) Cardio-respiratory endurance
- (c) Speed
- (d) Proportion of fat to lean body mass
- (e) Muscular strength and endurance

**Codes:**

- (A) a, b, c, e
- (B) a, b, d, e
- (C) b, c, d, e
- (D) b, a, c, d

51. The Scientific criteria for selection of test includes:

- (a) Validity
- (b) Reliability
- (c) Objectivity
- (d) Norms
- (e) Feasibility

**Codes:**

- (A) a, b and e
- (B) a, b, d and e
- (C) a, b, c and d
- (D) a, c and e

52. Rogers physical fitness index is derived from comparing achieved strength index with a norm based upon individual's:

- (a) Height
- (b) Sex
- (c) Body composition
- (d) Ponderal index
- (e) Weight
- (f) Age
- (g) BMI

**Codes:**

- (A) a, b and f
- (B) b, c and d
- (C) d, f and e
- (D) b, e and f

53. Which of the following are the roles of sports manager?

- (a) Inter personal role
- (b) Decision making role
- (c) Informational role
- (d) Authoritative role

**Codes:**

- (A) a, b, c and d
- (B) b, c and d
- (C) a, b and c
- (D) a, c and d



54. Advantages of inter school sports are:
- (a) Development of proficiency in skills
  - (b) Overemphasis on winning
  - (c) Less emphasis on mass participation
  - (d) Development of high level of physical fitness

**Codes:**

- (A) a and b
- (B) b and c
- (C) a and d
- (D) b and d

55. Which of the following are essential amino acid?

- 1. Histidine
- 2. Lysine
- 3. Valine
- 4. Alanine
- 5. Serine
- 6. Tryptophan
- 7. Tyrosine

Select the correct option:

- (A) 1, 2, 4, 5 & 7
- (B) 2, 3, 4, 5 & 6
- (C) 1, 2, 3 & 6
- (D) 2, 4, 5, 6 & 7

56. Which of the following hormones enhance muscle tissue growth?

- i. Human Growth hormone
- ii. Cortisol
- iii. IGF-I IV
- iv. Progesterone

Choose the correct answer from the code given below:

- (A) i and iii only
- (B) ii and iv only
- (C) i, ii, and iii only
- (D) ii, iii, and iv only

57. Given below are two statements :

**Statement – I :** The Isthmian games were organized in the honour of God Poseidon.

**Statement – II :** The Pythian Games were organized in the honour of God Apollo. In light of the above statements, choose the most appropriate answer from the options given below:

- (A) Both Statement I and Statement II are correct
- (B) Both Statement I and Statement II are incorrect
- (C) Statement - I is correct and Statement - II is incorrect
- (D) Statement - I is incorrect and Statement - II is correct

58. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer using the code given below :

**Assertion (a):** Sports is an institutionalized competitive activity that involves vigorous physical exertion or the use of relatively complex physical skills by individuals.

**Reason (r):** In Sports rules are not standardized and recreation is the essential components.

**Codes:**

- (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



59. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer using the code given below :

**Assertion (a):** Due to hypoxemia, the respiratory center gets stimulated resulting in increase in rate of breathing and decrease in depth of breath.

**Reason (r):** Chemoreceptors of aorta are sensitive to lack of oxygen, send impulses to medulla which stimulates the respiratory center.

**Codes :**

- (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

60. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer using the code given below :

**Assertion (a):** In the isometric contraction the work done by the muscle is zero.

**Reason (r):** In the isometric contraction displacement is at the point of muscle attachment is zero.

**Codes :**

- (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 (a) is false
- (D) (a) is false, but (r) is true

61. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer using the code given below :

**Assertion (a):** A gymnast does negative work when landing from dismount.

**Reason (r):** Negative work is done by a force acting on an object, when the object is displaced in the direction opposite the force acting on it.

**Codes :**

- (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

62. Given below are two statements:

**Statement – I:** The dynamic fluid force that results from motion within a fluid is commonly resolved into two components: the drag force and the lift force.

**Statement – II:** The Drag force is the dynamic fluid force component that acts perpendicular to the relative motion of the object with respect to the fluid. In light of the above statements, choose the most appropriate answer from the options given below:

- (A) Both Statement I and Statement II are correct
- (B) Both Statement I and Statement II are incorrect
- (C) Statement - I is correct and Statement - II is incorrect
- (D) Statement - I is incorrect and Statement - II is correct



63. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a) :** Athletes most frequently use Amphetamine (Dexedrine) and Dextroamphetamine Sulfate (Benzedrine).

**Reason (r):** These Compounds referred to as, sympathomimetic, mimic the actions of the sympathetic hormones epinephrine and norepinephrine to trigger increase in blood pressure, heart rate, cardiac output, breathing rate, metabolism and blood glucose.

**Codes :**

- (A) Both (a) and (r) are true and (r) is correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true

64. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a) :** NSNIS is the national nodal agency responsible for promoting sports.

**Reason (r) :** The main mission of NSNIS is to develop the highest quality coaches and contribute their expertise and support to the preparation of national teams for international competition.

**Codes:**

- (A) Both (a) and (r) are true and (r) is the correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not the correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true

65. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a):** Applied research is used to answer a specific question.

**Reason (r):** Applied Research studies the relationship and application of variables.

**Codes :**

- (A) Both (a) and (r) are true and (r) is the correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not the correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true



66. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a) :** Ethical issues play an important role in the research process.

**Reason (r) :** these help in improving standard and quality of research.

**Codes :**

- (A) Both (a) and (r) are true and (r) is the correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not the correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true

67. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a):** Maintaining a crouched position at the start of the 100 meters is costly in terms of muscle energy requirements as it increases muscle strength-to-length ratio and joint movement. But biomechanically there are advantages.

**Reason (r):** Stability is improved by increasing the size of the base or support in the direction of the application of force.

**Codes:**

- (A) Both (a) and (r) are true and (r) is the correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not the correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true

68. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a):** Validity depends on consistency of test results.

**Reason (r):** Inconsistent test results reduce correlation with validation criteria.

**Codes:**

- (A) Both (a) and (r) are true and (r) is the correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not the correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true

69. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a) :** Periodization is usually used in high performance training stage and entire year is periodized, using multiple periodization to enhance the performance.

**Reason (r) :** Multiple periodization should also be used for players so that they can tolerate intensive and highly specific schedules.

**Codes :**

- (A) Both (a) and (r) are true and (r) is correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true



70. Given below are two statements, one labelled as Assertion (a) and the other labelled as Reason (r). Read the statements and choose the correct answer from the code given below:

**Assertion (a):** Aptitude refers to an individual's underlying potential for acquiring skills.

**Reason (r):** Aptitude tests are used to predict what an individual will be able to do if given proper training and environment.

**Codes :**

- (A) Both (a) and (r) are true and (r) is correct explanation of (a)
- (B) Both (a) and (r) are true and (r) is not correct explanation of (a)
- (C) (a) is true, but (r) is false
- (D) (a) is false, but (r) is true

71. Match the terms of List-I with that List-II and select the correct answer using the codes given below :

	List I (Unit)	List II (Production)
P	One molecule of glycerol	(1) 463 ATPs
Q	One molecule of glucose	(2) 147 ATPs
R	One molecule of triglyceride (18-carbon)	(3) 22 ATPs
S	One molecule of fatty acid (18-carbon)	(4) 38 ATPs

**Codes :**

- |     | P | Q | R | S |
|-----|---|---|---|---|
| (A) | 3 | 4 | 2 | 1 |
| (B) | 4 | 3 | 2 | 1 |
| (C) | 4 | 3 | 1 | 2 |
| (D) | 3 | 4 | 1 | 2 |

72. Match List – I with List – II phases and activity during muscle contraction :

List-I (Phases)	List – II (Activities)
P Rest	I. Calcium ions saturates troponin
Q Relaxation	II. Energy swivels cross bridges
R Excitation	III. Calcium ions stored in and coupling Sarcoplasmic reticulum
S Contraction	IV. Calcium ions removed from calcium pump

Choose the correct answer from the options given below:

- |     | P   | Q   | R  | S  |
|-----|-----|-----|----|----|
| (A) | IV  | III | II | I  |
| (B) | IV  | III | I  | II |
| (C) | III | IV  | II | I  |
| (D) | III | IV  | I  | II |

73. Match List-I with List-II :

List – I (Movement at Hip Joint)	List – II (Muscle involved)
P Flexion	(I) Garcilis
Q Extension	(II) Iliopsoas
R Inward Rotation	(III) Gluteus Minimus
S Adduction	(IV) Gluteus Maximus

Choose the correct answer from the options given below:

- |     | P  | Q  | R   | S   |
|-----|----|----|-----|-----|
| (A) | IV | II | III | I   |
| (B) | II | IV | III | I   |
| (C) | IV | II | I   | III |
| (D) | II | IV | I   | III |



74. Match List – I with List – II :

List – I	List – II
(Type of Joint)	(Other Name)
P Hinge	I. Ginglymus
Q Pivot	II. Ovid
R Condylod	III. Enarthrodial
S Ball and Socket	IV. Trochoid

Choose the correct answer from the options given below:

	P	Q	R	S
(A)	I	IV	III	II
(B)	IV	I	III	II
(C)	I	IV	II	III
(D)	IV	I	II	III

75. Match List-I and List-II and select the correct answer from the codes given below:

List-I	List-II
(Internal Characteristics)	(Activities)
P Vertigo	I Activities involving mental skill
Q Pursuit	II Activities where the result can't be controlled by humans
R Chance	III Activities involving the element of chase with the purpose of catching
S Engima	IV Activities where there is loss body stability

**Codes:**

	P	Q	R	S
(A)	IV	III	II	I
(B)	IV	III	I	II
(C)	III	IV	II	I
(D)	III	IV	I	II

76. Match the List-I and List-II and select the correct answer from the codes given below:

List-I	List-II
(Principal of Management)	(Outcome)
P Control	(I) General orientation
Q Planning	(II) Information aggregation
R Selection	(III) Goal achievement
S Organising	(IV) transfer of rights

**Codes:**

	P	Q	R	S
(A)	III	II	I	IV
(B)	II	III	IV	I
(C)	II	IV	II	III
(D)	III	I	II	IV

77. Match the terms of List-I with that List-II and select the correct answer using the codes given below :

List-I	List-II
(Characteristics)	(Variables)
P Agreeableness	(1) Aggression
Q Hostility	(2) Anxiety
R Maslow's Theory of Hierarchical Needs	(3) Personality
S Panic Disorder	(4) Motivation

**Codes :**

	P	Q	R	S
(A)	1	3	2	4
(B)	3	1	2	4
(C)	3	1	4	2
(D)	1	3	4	2



78. Match List-I with List-II :

LIST-I	LIST-II
P Interval scale	(1) Standard deviation, contingency coefficient, percentile
Q Nominal scale	(2) Rank order correlation, quartile deviation, Kendal W
R Ordinal scale	(3) Frequency, Chi square
S Ratio scale	(4) Mean, partial and multiple correlations (5) Static Coefficient, Pie constant

Choose the correct answer using the codes given below :

	P	Q	R	S
(A)	4	5	3	1
(B)	3	2	4	5
(C)	4	3	2	1
(D)	3	4	1	5

79. Match the List-I with that List-II and select the correct answer from the codes given below :

LIST-I (Action)	LIST-II (Event/Skill)
i. Maximum forward locomotion	(1) Diving
ii. High degree of difficulty	(2) Judo
iii. High movement economy	(3) Sprints
iv. Executing learned movements for tackling a task	(4) Running

Codes:

	i	ii	iii	iv
(A)	3	1	4	2
(B)	4	2	1	3
(C)	4	2	3	1
(D)	3	4	2	1

80. Match the List-I with that List-II and select the correct answer from the codes given below :

List-I Skill test	List-II Reliability coefficient
P Broer- miller tennis test	(1) 0.87
Q Knox basketball test	(2) 0.90
R Lockart- McPherson badminton test	(3) 0.88
S Brady volleyball test	(4) 0.91
	(5) 0.80
	(6) 0.93

Codes:

	P	Q	R	S
(A)	2	4	6	3
(B)	5	3	2	6
(C)	3	5	2	4
(D)	6	1	3	5



81. Match the List-I with that List-II and select the correct answer from the codes given below :

	<b>LIST I</b>		<b>LIST II</b>
P	Differentiation ability	(1)	Ability to perceive the externally given rhythm and to produce it in motor action.
Q	Coupling ability	(2)	Ability to achieve a high level of fine-tuning or harmony of individual movement phases and body part movements.
R	Rhythm ability	(3)	Coordinate body part movements with one another in relation to a definite goal.
S	Reaction ability	(4)	Ability to react quickly and effectively to a signal.

**Codes:**

	P	Q	R	S
(A)	2	1	4	3
(B)	1	2	3	4
(C)	4	2	3	1
(D)	2	3	1	4

82. Match the List-I with that List-II and select the correct answer from the codes given below :

	<b>List I (THEORY)</b>		<b>LIST II (PROPOSED BY)</b>
P	Administrative management theory	(1)	Henry Fayol
Q	Bureaucratic management theory	(2)	Elton Mayo
R	Human relation theory	(3)	Fredrick Taylor
S	Scientific management theory	(4)	Max Weber

**Codes:**

	P	Q	R	S
(A)	2	1	3	4
(B)	1	4	2	3
(C)	2	1	4	3
(D)	1	4	3	2

83. Match List-I and List-II and select the correct answer from the codes given below:

	<b>List-I (Statistical Techniques)</b>		<b>List-II (Symbol)</b>
P	Measure of Skewness	I	$\beta^2$
Q	Measure of Kurtosis	II	$\sigma^2$
R	Variance	III	$\chi^2$
S	Test of Goodness	IV	$\beta^1$

**Codes:**

	P	Q	R	S
(A)	I	IV	II	III
(B)	IV	I	III	II
(C)	I	IV	III	II
(D)	IV	I	II	III



84. Match List-I and List-II and select the correct answer from the codes given below:

	<b>List-I (Theories)</b>		<b>List-II (Given by)</b>
P	ERG theory	I	Skinner
Q	The two factor theory of motivation	II	Pavlov's
R	Reinforcement theory of motivation	III	Alderfer
S	Classical Conditioning theory	IV	Harzberg

**Codes:**

	P	Q	R	S
(A)	III	IV	I	II
(B)	IV	III	II	I
(C)	IV	III	I	II
(D)	III	IV	II	I

85. Match List-I and List-II and select the correct answer from the codes given below:

	<b>List-I (WADA Category of Banned substances)</b>		<b>List-II (Substances)</b>
P	S8	1	NARCOTICS
Q	S7	2	DIURETICS AND MASKING AGENTS
R	S6	3	CANNABINOIDS
S	S5	4	STIMULANTS

**Codes:**

	P	Q	R	S
(A)	3	1	2	4
(B)	1	3	4	2
(C)	3	1	4	2
(D)	1	3	2	4

86. Arrange the following vitamins for their recommended daily intake (mg/d) for 16-17 years boy of 55 kg weight form highest to lowest in a sequence:

1. Thiamine
2. Ascorbic acid
3. Niacin
4. Riboflavin

Select the correct code:

- (A) 3, 2, 4, 1
- (B) 3, 4, 1, 2
- (C) 4, 2, 3, 1
- (D) 3, 4, 2, 1

87. Arrange the following skinfold sites from top to bottom in a sequence:

1. Midaxillary
2. Chest
3. Abdominal
4. Suprailiac

Choose the correct answer from the options given below:

- (A) 3, 2, 4, 1
- (B) 2, 3, 1, 4
- (C) 2, 1, 3, 4
- (D) 3, 4, 2, 1

88. Arrange the pathway of nerves impulses of heart conduction from first to last in a sequence:

1. Atria
2. S-A node
3. Bundle of His
4. A-V node

Choose the correct answer from the options given below:

- (A) 2, 1, 4, 3
- (B) 1, 2, 4, 3
- (C) 3, 4, 2, 1
- (D) 2, 3, 4, 1



89. Arrange the four swimming styles of Individual Medley events of Swimming in a sequence:
1. Breaststroke
  2. Freestyle
  3. Butterfly
  4. Backstroke
- Choose the correct answer from the options given below:
- (A) 3, 1, 4, 2  
(B) 1, 4, 2, 3  
(C) 1, 3, 2, 4  
(D) 3, 4, 1, 2
90. Arrange the following steps for calculating standard deviation in to a sequence from first to last:
1. Calculating midpoint class interval (X)
  2. Calculating fd square
  3. Calculating Mean
  4. Calculating  $d = X - M$
  5. Calculating  $fX$
  6. Calculating fd square
- Choose the correct answer from the options given below:
- (A) 1, 5, 3, 4, 6, 2  
(B) 1, 5, 3, 4, 2, 6  
(C) 1, 2, 6, 3, 4, 5  
(D) 1, 3, 5, 4, 2, 6
91. Arrange the following events of development of physical education in India in a sequence from first to last:
1. National Physical Efficiency Drive
  2. Establishment of LNCPE, Gwalior
  3. Inter University Sports Board
  4. School Games Federation of India
- Choose the correct answer from the options given below:
- (A) 4, 1, 2, 3  
(B) 3, 4, 2, 1  
(C) 4, 1, 3, 2  
(D) 3, 2, 4, 1
92. Arrange the following lung capacities and volumes which have maximum value to minimum value during rest in a sequence from :
1. Vital capacity
  2. Total Lung Capacity
  3. Inspiration capacity
  4. Residual volume
  5. Tidal Volume
- Choose the correct answer from the options given below:
- (A) 1, 2, 3, 5, 4  
(B) 2, 3, 1, 5, 4  
(C) 1, 3, 2, 5, 4  
(D) 2, 1, 3, 4, 5
93. Arrange the following Stance phases of walking gait in a sequence from first to last:
1. Mid Stance
  2. Initial Contact
  3. Terminal Stance
  4. Loading Response -
- Choose the correct answer from the options given below:
- (A) 4, 1, 2, 3  
(B) 2, 4, 3, 1  
(C) 4, 1, 3, 2  
(D) 2, 4, 1, 3
94. Arrange the following steps of two way analysis of variance in a sequence from first to last.
- |         |         |
|---------|---------|
| (a) RSS | (b) CF  |
| (c) SSC | (d) TSS |
| (e) SSE | (f) SSI |
| (g) SSR |         |
- Codes:**
- (A) a, b, d, c, f, g, e  
(B) b, a, d, g, c, f, e  
(C) b, a, g, d, f, e, c  
(D) b, d, g, c, e, f, a



95. To develop learning outcomes of a model curriculum arrange the following steps of conceptualization in a sequence from first to last.
- (a) Define the goals for instructional practises.
  - (b) Evaluate how classroom practices and organizational conditions support or hinder achievement of outcomes
  - (c) Develop a clear programme vision.
  - (d) Develop the curriculum plan
- Codes:**
- (A) c, a, b and d
  - (B) a, b, c and d
  - (C) b, d, a and c
  - (D) b, c, d and a
96. Movement at hip joint during Preparatory phase is done on which of the following axis and plane?
- (A) Mediolateral Axis and Sagittal Plane
  - (B) Anteroposterior Axis and Frontal Plane
  - (C) Vertical Axis and Horizontal Plane
  - (D) Diagonal Axis and High Diagonal Plane
97. Which of the following statement is/are correct when the body was in Preparatory Phase?
- Statement – I :** The ankle joint movement is dorsi flexion but the muscle contraction is eccentric.
- Statement – II :** The segment immediately above the ankle joint are lowered relative to the ankle joint so the potential energy relative to the ankle joint increased. In light of the above statements, choose the most appropriate answer from the options given below:
- (A) Both Statement I and Statement II are correct
  - (B) Both Statement I and Statement II are incorrect
  - (C) Statement I is correct and Statement II is incorrect
  - (D) Statement I is incorrect and Statement II is correct
98. During propulsive phase the potential and kinetic energy of all the body segments will:
- (A) Remain constant
  - (B) Potential energy increases and Kinetic energy decrease
  - (C) Potential energy decrease and Kinetic energy increases
  - (D) Both potential and Kinetic energy increases
99. Which of the following statement is/are correct when the body was in Preparatory Phase?
- Statement – I :** The contraction of active knee joint movement is concentric.
- Statement – II :** The segment immediately above the knee joint are lowered relative to the knee joint so the potential energy relative to the knee joint increased. In light of the above statements, choose the most appropriate answer from the options given below:
- (A) Both Statement I and Statement II are correct
  - (B) Both Statement I and Statement II are incorrect
  - (C) Statement I is correct and Statement II is incorrect
  - (D) Statement I is incorrect and Statement II is correct
100. At the end of preparatory phase and the beginning of the purposive phase the body is rapidly :
- (A) Deaccelerated upward
  - (B) Accelerated upward
  - (C) Accelerated downward
  - (D) Deaccelerated downward



**ROUGH WORK**



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## **ROUGH WORK**