General instructions:

1. There are three sections in the Question paper namely Section A, Section B and Section C.
2. Section A consists of 24 questions amongst which 20 questions have to be attempted.
3. Section B consists of 24 questions amongst which 20 questions have to be attempted.
4. Section C consists of 12 questions amongst which 10 questions have to be attempted.

SECTION A (KNOWLEDGE AND UNDERSTANDING)

Q1. What is the other name for Vitamin B2?
   a) Niacin  
   b) Thiamin  
   c) Folic Acid  
   d) Riboflavin

Q2. What is the formula to divide an odd number of teams in the upper half for a knockout fixture?
   a) N+1/2  
   b) N-1/2  
   c) N(N-1)/2  
   d) N(N+1)/2

Q3. Which test is developed to test fitness in senior citizens?
   a) Harvard step  
   b) Rikli and Jones  
   c) AAHPER  
   d) Rockport

Q4. Which action is shown in the illustration?
   a) Flexion  
   b) Extension  
   c) Adduction  
   d) Abduction

Q5. Gliding movement occurs at which joint?
   a) Knee  
   b) Hip  
   c) Wrist  
   d) Elbow
Q6. Consolation tournaments are a part of which type of fixture?
   a) Knockout
   b) league
   c) combination
   d) none of these

Q7. Which amongst these is not a macro mineral?
   a) Calcium
   b) Potassium
   c) Phosphorus
   d) Iodine

Q8. Who discovered Vitamin A?
   a) Dr. Mc Collum
   b) Dr. Coubertin
   c) Dr. J.B.Nash
   d) Dr. Harvard

Q9. Formula for determining the number of bye in the lower half of a knockout fixture when number of byes are odd?
   a) nb+1/2
   b) nb-1/2
   c) nb /2
   d) nb+1

Q10. What is the name of the postural deformity caused due to increase in the curve at the lumbar region?
    a) Knock knees
    b) Bow legs
    c) Kyphosis
    d) Lordosis

Q11. Which test is used to test the functional ability amongst senior citizens?
    a) Rockport one mile test
    b) Harvard step test
    c) Rikli and Jones test
    d) Fitness Index score

Q12. What is the test duration for the Arm curl test?
    a) 1min
    b) 2 min
    c) 30sec
    d) Number of repetitions

Q13. Which postural deformity has Convexities right or left?
    a) Flat foot
    b) Knock knees
    c) Kyphosis
    d) Scoliosis

Q14. Which motor skill is involved in Smashing volleyball?
a) Gross motor skills
b) Fine motor skills
c) Cross motor skills
d) Open skills

Q15. Who gave Laws of motion?
   a) Galileo
   b) Pascal
   c) Newton
   d) Darwin

Q16. Harvard step is performed to check which kind of fitness?
   a) Cardiovascular
   b) Explosive strength
   c) Muscular strength
   d) Reaction ability

Q17. Which fixture is also known as ‘Berger system’?
   a) Knockout fixture
   b) Round robin fixture
   c) Combination fixture
   d) Challenge tournament

Q18. Which of the following is not a spinal curvature deformity?
   a) Kyphosis
   b) Scoliosis
   c) Lordosis
   d) Flatfoot

Q19. What according to you is the main cause for night blindness?
   a) Deficiency of Vit. E
   b) Deficiency of Vit. C
   c) Deficiency of Vit. A
   d) Deficiency of Vit. D

Q20. Which law amongst the given ones is known as the First law of motion?
   a) Law of inertia
   b) Law of reaction
   c) Law of momentum
   d) Law of acceleration

Q21. What is the Ratio of carbon, hydrogen and oxygen in carbohydrates?
   a) 1:2:1
   b) 2:2:1
   c) 2:1:1
   d) 1:2:2

Q22. The formula for determining the number of rounds in a single league fixture when the number of teams is even?
   a) N
b) N-1/2  
c) N-1  
d) N(N-1)/2

Q23. Which postural deformity is related to Posterior curve of the spine?
   a) Scoliosis  
b) Kyphosis  
c) Lordosis  
d) Knock knees

Q24. Which movement is caused by Moving a body part away from the medial line of the body?
   a) Flexion  
b) Extension  
c) Adduction  
d) Abduction
Q25. Name the component which is measured by this test?

a) Endurance  
b) Speed  
c) Flexibility  
d) coordinative ability

Q26. Which exercise should be done to cure this deformity?

a) Skipping  
b) Walking on heels  
c) Both a) and b)  
d) Hanging on horizontal bar

Q27. Identify the component of fitness which is tested through this exercise

a) Maximum strength  
b) Explosive strength  
c) Strength endurance  
d) Static strength

Q28. How many matches will be played if there are 22 teams for the knockout fixture?

a) 10  
b) 21  
c) 12  
d) 32

Q29. How many byes will be given if there are 8 teams in the league tournament?

a) 7  
b) 5  
c) 4  
d) 0

Q30. Halasana is used for curing which of the following deformities?

a) Kyphosis  
b) Scoliosis  
c) Lordosis  
d) Flatfoot

Q31. Match the following:

1. Vitamin B12  
a) Thiamin
2. Vitamin B3       b) Biotin
3. Vitamin B7       c) Cobalamin
4. Vitamin B1       d) Niacin

Q32. Match the following:

1. a) lower body strength
2. b) lower body flexibility
3. c) upper body strength
4. d) abdominal strength

Q33. Match the postural deformities with their remedial activity:
Q34 Match the movements:

1. a) Flexion
2. b) Adduction
3. c) Extension
4. d) Abduction

Q35. Which statement is not true about protein?
   a) Protein forms new tissues
   b) Protein regulates the balance of water and acids
   c) Protein helps in production of hormones.
   d) Protein makes antibodies.

Q36. How many rounds will be played if the number of teams are 29 in the knockout fixture?
   a) 5
   b) 6
   c) 7
   d) 3

Q37. Identify the odd one.
Q38. Assertion (A): UNICEF says that water is not included in macro nutrients but USDA includes it as part of macronutrients.
   
   Reason (R) Water must be taken in large quantities therefore it can be considered a macronutrient.
   
   a) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
   b) (A) is true, but (R) is false
   c) Both (A) and (R) are true and (R) is the correct explanation of (A)
   d) (A) is false, but (R) is true

Q39. Assertion (A): Physical activities as corrective measure are very effective in functional deformity in comparison to structural deformity.
   
   Reason (R) muscles and ligaments are affected in functional deformity
   
   a) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
   b) Both (A) and (R) are true and (R) is the correct explanation of (A)
   c) (A) is true, but (R) is false
   d) (A) is false, but (R) is true

Q40. Identify the movement

a) Rotation
b) Circumduction
c) Flexion
d) Extension

Q41. What will be the fitness index score of a girl if the test duration was 300sec and the pulse count(1min-1.5min) was 80.

a) 73.2
b) 62.8
c) 68.1
d) 85.3

Q42. Match the following

(a) Technical committee               (i) To provide shifting facility
(b) Finance committee                  (ii) To resolve dispute
(c) Transport committee               (iii) To deals with money and expenditure
(d) First aid committee                  (iv) To provide medical facilities.

(a) a–ii, b–iii, c–i, d–iv
(b) a–iii, b–ii, c–i, d–iv
Q43. Match the following vitamin with the disease caused due to their deficiency
1. Vitamin A a) Rickets
2. Vitamin B b) Night blindness
3. Vitamin C c) Beri beri
4. Vitamin D d) Scurvy

(c) a–ii, b–iii, c–iv, d–i
(d) a–iv, b–iii, c–i, d–ii

Q44. Starting a throwing event in athletics is an example of which law of motion.
   a) First law of motion
   b) Second law of motion
   c) Third law of motion
   d) First and third law of motion

Q45. Assertion (A): “A change in the acceleration of an object is directly proportional to the force producing it and inversely proportional to its mass”
   Reason (R): Lighter mass will travel at a faster speed
   a) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
   b) Both (A) and (R) are true and (R) is the correct explanation of (A)
   c) (A) is true, but (R) is false
   d) (A) is false, but (R) is true

Q46. Identify which one of these is not the objective of Planning?
   a) Enhance creativity
   b) Increase efficiency
   c) Reduce chances of mistake
   d) Facilitates poor coordination

Q47. Identify the test for which this pattern is followed
   a) 600 mtr
   b) 50 yard dash
   c) 400 mtr
   d) 6 min walk

Q48. Calculate the BMI of a girl and identify the category if her weight is 68 kg and height is 161 cm.
   a) Underweight
   b) Normal weight
   c) Overweight
d) Obesity class I
SECTION C (CASE STUDIES)

Q49. Below given is the BMI data of a school’s health check-up

In which category does the major student population fall into?
(a) Obese
(b) Normal weight
(c) Underweight
(d) Overweight

Q50. Mr. Lakshman, aged 65 years worked as a civil engineer in a construction company. He had to walk and climb a lot as part of his job. After retirement, he settled with his son and spent time with his grandchildren. Nowadays he is experiencing difficulty in doing certain chores which involve

The test shown in the picture is performed to assess which component?
(a) agility  (b) endurance  (c) speed  (d) strength

Q51.
Physical education teacher of ABC school was teaching the students about Newton’s Laws of Motion. While explaining he showed the students this picture and tried to explain how there is a difference in the speed of an object due to their weight. Can you name the Law?

a) Newton’s First Law of Motion  
b) Newton’s Second Law of Motion  
c) Newton’s Third Law of Motion  
d) Action Reaction

Q52. Jatin is a weightlifter in the 96 kg category. He has to participate in a weightlifting competition next week for which he is taking good care of his practice and diet. He has included all the essential nutrients in his diet. Based on this case, answer the following questions.

What do you think would be the most important component of Jatin’s diet?

a. Proteins  
b. Carbohydrates  
c. Vitamins  
d. Minerals

Q53. Rohan and Satish organized a Volleyball tournament on Knock out basis. They found that the spectators were losing interest in the tournament because two good teams were out of the tournament as they were defeated in the beginning.

Which provision could have avoided this kind of situation?

(a) Bye  
(b) Seeding  
(c) Pools  
(d) Halves

Q54. Sandy is diagnosed with postural adaptation of the spine in lateral direction. The curve is identified as convexity right. It happened due to Sandy’s underdeveloped legs and carrying heavy loads on one side only.

What kind of postural deformity doctors found in Sandy?

(a) Scoliosis  
(b) Kyphosis  
(c) Bow Legs  
(d) Flatfoot

Q55. Motor development only happens when the child is biologically and mentally ready for it. Motor development refers to the development of movement and various motor abilities from birth till death. It is the ability to move around and manipulate his/her environment. The first stage is marked by extremely rapid growth and development, as is the second stage. By the age of 2 years, this development has begun to level out somewhat. The final stage does not have any marked new development; rather it is characterized by the mastering and development of the skills achieved in the first two stages.

Which Factor affecting motor development

(a) Biological, environmental, nutrition, opportunity  
(b) Obesity, postural deformities, physical activities  
(c) Both a & b  
(d) Technique, skill and style

Q56. Harvard step test is also called the Aerobic Fitness Test. It was developed by Brouha and others in 1943. It is used to measure aerobic fitness by checking the recovery rate.
Few students were asked to conduct Harvard step test for their classmates and they were asked to note down the complete details of their aerobic capacity. For conducting tests they required a bench separate for boys 20 inches and girls 16 inches with one stop watch to note down the timing and their recovery rate.

How many times is the reading taken for calculating a long term fitness index?
(a) 5  
(b) 3  
(c) 2  
(d) 4

Q57. Rishi who was studying in class XII is a science stream student. During his Physical Education class, he got confused how Newton’s laws of Motion are useful in sports and how they can be applied in sports. But his teacher explained these laws with help of examples from sports which proved to be very helpful for him.

Swimming is the best example of which law of motion?

(a) Law of inertia  
(b) Law of acceleration  
(c) Law of reaction  
(d) Both a & c

Q58. Posture plays a very significant role in our daily activities. Correct posture means the balancing of the body in an accurate and proper manner. Various types of postural deformities can be identified in individuals.

From the above given picture, the deformities seen on the left most is caused due to deficiency of which nutrient?

(a) Iron  
(b) Calcium  
(c) Vit D  
(d) Both (b) & (c)

Q59. Sohan, a new student in the school, was very much interested in sports and while learning various biomechanical aspects of the game including various movements he became curious to understand movements used in different games.

Flexion and extension comes under which movement.

(a) gliding  
(b) angular  
(c) rotation  
(d) Circumduction
Q60. ABC School is one of the reputed schools in their location for the number of sports facilities it provides to its stakeholders. Keeping that in consideration CBSE Sports cell has given them the responsibility of conducting CBSE Football cluster. 35 teams have sent their entry for participation in the tournament.

A. Due to the large number of teams willing to participate the school should conduct the competition by which fixture?
   a) League
   b) Knock out
   c) Staircase
   d) Challenge