



Series EF1GH/C



Set-4

प्रश्न-पत्र कोड  
Q.P. Code

75

रोल नं.

Roll No.

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

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

शारीरिक शिक्षा (सैद्धान्तिक)

PHYSICAL EDUCATION (Theory)

निर्धारित समय : 3 घण्टे

Time allowed : 3 hours

अधिकतम अंक : 70

Maximum Marks : 70

- कृपया जाँच कर लें कि इस प्रश्न-पत्र में मुद्रित पृष्ठ 15 हैं।
- प्रश्न-पत्र में दाहिने हाथ की ओर दिए गए प्रश्न-पत्र कोड को परीक्षार्थी उत्तर-पुस्तिका के मुख-पृष्ठ पर लिखें।
- कृपया जाँच कर लें कि इस प्रश्न-पत्र में 37 प्रश्न हैं।
- कृपया प्रश्न का उत्तर लिखना शुरू करने से पहले, उत्तर-पुस्तिका में 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 जाएगा। 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 15 printed pages.
- Q.P. Code 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 37 questions.
- **Please write down the serial number of the question in the answer-book 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.





### सामान्य निर्देश :

- (i) प्रश्न-पत्र में 5 खण्ड और 37 प्रश्न हैं ।
- (ii) खण्ड-क में 1 – 18 तक प्रश्न हैं जिनमें प्रत्येक प्रश्न 1 अंक का है और ये बहुविकल्पीय प्रश्न हैं । सभी प्रश्न अनिवार्य हैं ।
- (iii) खण्ड-ख में 19 – 24 तक प्रश्न हैं, जिनमें से प्रत्येक प्रश्न 2 अंकों का है तथा ये लघु-उत्तरीय प्रकार के हैं और इनका उत्तर 60 – 90 शब्दों से अधिक नहीं होना चाहिए । कोई 5 प्रश्न कीजिए ।
- (iv) खण्ड-ग में 25 – 30 तक प्रश्न हैं, जिनमें से प्रत्येक प्रश्न 3 अंकों का है तथा ये लघु-उत्तरीय प्रकार के हैं और इनका उत्तर 100 – 150 शब्दों से अधिक नहीं होना चाहिए । कोई 5 प्रश्न कीजिए ।
- (v) खण्ड-घ में 31 – 33 तक प्रश्न हैं, जिनमें से प्रत्येक प्रश्न 4 अंकों का है और ये केस स्टडी के हैं । इनमें आंतरिक विकल्प उपलब्ध है ।
- (vi) खण्ड-ङ में 34 – 37 तक प्रश्न हैं, जिनमें से प्रत्येक प्रश्न 5 अंकों का है तथा ये दीर्घ-उत्तरीय प्रकार के हैं और इनका उत्तर 200 – 300 शब्दों से अधिक नहीं होना चाहिए । कोई 3 प्रश्न कीजिए ।

### खण्ड-क

1. किसी खेलकूद प्रतियोगिता के नियमों व विनियमों की ज़िम्मेदारी \_\_\_\_\_ समिति की होती है । 1
  - (a) तकनीकी
  - (b) रसद (लॉजिस्टिक्स)
  - (c) विपणन
  - (d) वित्तीय
2. युवा लड़की में प्रथम मासिक धर्म कहलाता है : 1
  - (a) मासिक धर्म में शिथिलता (असामान्यता)
  - (b) ऑस्टियोपोरोसिस
  - (c) ऋतुरोध
  - (d) प्रथम रजोदर्शन
3. निम्नलिखित में से कौन-सा आसन, मोटापे को ठीक करने के लिए प्रयोग नहीं किया जाता है ? 1
  - (a) पवनमुक्तासन
  - (b) हलासन
  - (c) शवासन
  - (d) पश्चिमोत्तानासन
4. विशेष ओलम्पिक खेलों का/की संस्थापक \_\_\_\_\_ है । 1
  - (a) जॉन एफ. केनैडी
  - (b) लुडविग गट्मैन
  - (c) यूजीन रूबेन्स
  - (d) इयूनिस केनैडी श्रिवर





**General Instructions :**

- (i) The question paper consists of **5** sections and **37** questions.
- (ii) **Section-A** consists of Questions **1 – 18** carrying **1** mark each and are Multiple Choice Questions. **All** questions are compulsory.
- (iii) **Section-B** consists of Questions **19 – 24** carrying **2** marks each and are Very Short Answer Type and should not exceed **60 – 90** words. Attempt any **5**.
- (iv) **Section-C** consists of Questions **25 – 30** carrying **3** marks each and are Short Answer Type and should not exceed **100 – 150** words. Attempt any **5**.
- (v) **Section-D** consists of Questions **31 – 33** carrying **4** marks each and are case studies. There is an internal choice available.
- (vi) **Section-E** consists of Questions **34 – 37** carrying **5** marks each and are Long Answer type and should not exceed **200 – 300** words. Attempt any **3**.

**SECTION-A**

1. Rules and regulations of a sports tournament are the responsibility of \_\_\_\_\_ Committee. 1
  - (a) Technical
  - (b) Logistics
  - (c) Marketing
  - (d) Finance
2. First menstrual period in a young girl is called : 1
  - (a) Menstrual dysfunction
  - (b) Osteoporosis
  - (c) Amenorrhea
  - (d) Menarche
3. Which of the following asana is **not** used to cure obesity ? 1
  - (a) Pavanmuktasana
  - (b) Halasana
  - (c) Shavasana
  - (d) Paschimottanasana
4. The founder of Special Olympics is \_\_\_\_\_ . 1
  - (a) John F. Kennedy
  - (b) Ludwig Guttmann
  - (c) Eugene Rubens
  - (d) Eunice Kennedy Shriver





5. खेल प्रशिक्षण में माइक्रो योजना की अवधि \_\_\_\_\_ हो सकती है । 1  
(a) 3 – 7 दिन (b) 3 – 7 सप्ताह  
(c) 3 – 4 महीने (d) 3 – 4 वर्ष
6. आंशिक कर्ल-अप परीक्षण का उपयोग \_\_\_\_\_ मापने के लिए किया जाता है । 1  
(a) गति (b) शक्ति  
(c) प्रतिक्रिया समय (d) लचीलापन
7. मोच का संबंध \_\_\_\_\_ से है । 1  
(a) मांसपेशी (b) अस्थिबंध (लिगामेन्ट)  
(c) हड्डी (d) कण्डरा
8. निम्नलिखित में से कौन-सा जुंग के व्यक्तित्व का वर्गीकरण **नहीं** है ? 1  
(a) अंतर्मुखी (b) एंडोमोर्फ  
(c) बहिर्मुखी (d) उभयमुखी
9. शरीर के विभिन्न अंगों की गति को संयोजित करने की योग्यता को \_\_\_\_\_ कहा जाता है । 1  
(a) युग्मक योग्यता (b) प्रतिक्रिया योग्यता  
(c) तालबद्ध योग्यता (d) अनुकूलन योग्यता
10. नीचे दो कथन दिए गए हैं जो कि अभिकथन (A) तथा कारण (R) के रूप में हैं ।  
अभिकथन (A) : आक्रामकता एक प्रकार का शत्रुतापूर्ण व्यवहार है जिसका उद्देश्य दूसरे लोगों को क्षति पहुँचाना है ।  
कारण (R) : आक्रामकता अनजाने में होती है ।  
उपर्युक्त दो कथनों के संदर्भ में निम्नलिखित में से कौन-सा सही है ? 1  
(a) अभिकथन (A) और कारण (R) दोनों सही हैं और कारण (R), अभिकथन (A) की सही व्याख्या करता है ।  
(b) अभिकथन (A) और कारण (R) दोनों सही हैं, परन्तु कारण (R), अभिकथन (A) की सही व्याख्या **नहीं** करता है ।  
(c) अभिकथन (A) सही है, परन्तु कारण (R) ग़लत है ।  
(d) अभिकथन (A) ग़लत है, परन्तु कारण (R) सही है ।





5. The duration of micro plan in sports training may be \_\_\_\_\_. 1  
(a) 3 – 7 days (b) 3 – 7 weeks  
(c) 3 – 4 months (d) 3 – 4 years
6. Partial curl-up test is used to measure \_\_\_\_\_. 1  
(a) Speed (b) Strength  
(c) Reaction time (d) Flexibility
7. Sprain is related to \_\_\_\_\_. 1  
(a) Muscle (b) Ligament  
(c) Bone (d) Tendon
8. Which of the following is **not** Jung’s classification of personality ? 1  
(a) Introvert (b) Endomorph  
(c) Extrovert (d) Ambivert
9. The ability to combine the movement of different body parts is known as : 1  
(a) Coupling ability (b) Reaction ability  
(c) Rhythm ability (d) Adaptation ability
10. Given below are two statements labelled Assertion (A) and Reason (R).  
*Assertion (A)* : Aggression is a type of hostile behaviour aimed to harm other persons.  
*Reason (R)* : Aggression is unintentional.  
In the context of the above two statements, which one of the following is correct ? 1  
(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).  
(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is **not** the correct explanation of the Assertion (A).  
(c) Assertion (A) is true, but Reason (R) is false.  
(d) Assertion (A) is false, but Reason (R) is true.





11. सूची I और सूची II का मिलान करते हुए नीचे दिए गए कोड में से सही उत्तर का चयन कीजिए :

सूची I

सूची II

- |             |                |
|-------------|----------------|
| A. रगड़     | (i) जोड़       |
| B. अस्थिभंग | (ii) हड्डी     |
| C. विस्थापन | (iii) मांसपेशी |
| D. खिंचाव   | (iv) त्वचा     |

सही विकल्प चुनिए :

1

- |                                    |                                    |
|------------------------------------|------------------------------------|
| (a) A-(iv), B-(ii), C-(i), D-(iii) | (b) A-(iv), B-(ii), C-(iii), D-(i) |
| (c) A-(iv), B-(i), C-(iii), D-(ii) | (d) A-(iii), B-(iv), C-(ii), D-(i) |

12. वसा एवं तेल किसके अंतर्गत आते हैं ?

1

- |                                    |                          |
|------------------------------------|--------------------------|
| (a) शरीर का निर्माण करने वाले भोजन | (b) सुरक्षात्मक भोजन     |
| (c) नियमित भोजन                    | (d) ऊर्जा देने वाले भोजन |

13. नॉकआउट खेल-प्रतियोगिता के दूसरे दौर में कितने मैच खेले जाएँगे, यदि 17 टीमों भाग ले रहीं हों ?

1

- |       |       |
|-------|-------|
| (a) 6 | (b) 7 |
| (c) 8 | (d) 5 |

14. 'चपटे पाँव' वाली आसन-विकृति को इस नाम से भी जाना जाता है :

1

- |                |                    |
|----------------|--------------------|
| (a) जेनु वैरम  | (b) पेस प्लेनस     |
| (c) जेनु वेलगम | (d) पार्श्व वक्रता |

15. सूर्यभेदी प्राणायाम किसे नियंत्रित करने के लिए किया जाता है ?

1

- |            |                 |
|------------|-----------------|
| (a) मोटापा | (b) मधुमेह      |
| (c) अस्थमा | (d) उच्चरक्तचाप |

16. प्लेट टैपिंग परीक्षण का उद्देश्य है :

1

- |  |
|--|
| (a) हाथों की शक्ति जानना                       |
| (b) हृदय वाहिका की दक्षता जानना                |
| (c) हाथ तथा आँखों की त्वरिता व समन्वय को जानना |
| (d) लचीलापन जानना                              |

17. \_\_\_\_\_ के प्रयोग द्वारा घर्षण को बढ़ाया जा सकता है ।

1

- |                      |                 |
|----------------------|-----------------|
| (a) चिकने पदार्थ     | (b) पॉलिशिंग    |
| (c) मैग्नीशियम पाउडर | (d) बॉल बेयरिंग |

18. लम्बी कूद में टेक ऑफ लेते समय न्यूटन का कौन-सा नियम लागू होगा ?

1

- |                         |                           |
|-------------------------|---------------------------|
| (a) त्वरण का नियम       | (b) जड़त्व का नियम        |
| (c) प्रतिक्रिया का नियम | (d) गुरुत्वाकर्षण का नियम |





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

<i>List I</i>	<i>List II</i>
A. Abrasion	(i) Joint
B. Fracture	(ii) Bone
C. Dislocation	(iii) Muscle
D. Strain	(iv) Skin

Choose the correct option :

1

- |                                    |                                    |
|------------------------------------|------------------------------------|
| (a) A-(iv), B-(ii), C-(i), D-(iii) | (b) A-(iv), B-(ii), C-(iii), D-(i) |
| (c) A-(iv), B-(i), C-(iii), D-(ii) | (d) A-(iii), B-(iv), C-(ii), D-(i) |

12. Fats and oils come under :

1

- |                        |                         |
|------------------------|-------------------------|
| (a) Bodybuilding foods | (b) Protective foods    |
| (c) Routine foods      | (d) Energy-giving foods |

13. How many matches will be played in the 2<sup>nd</sup> round of a knockout tournament if 17 teams are participating ?

1

- |       |       |
|-------|-------|
| (a) 6 | (b) 7 |
| (c) 8 | (d) 5 |

14. 'Flatfoot' postural deformity is also known as :

1

- |                 |                       |
|-----------------|-----------------------|
| (a) Genu varum  | (b) Pes planus        |
| (c) Genu valgum | (d) Lateral curvature |

15. Suryabhedhi Pranayam is performed to control :

1

- |             |                  |
|-------------|------------------|
| (a) Obesity | (b) Diabetes     |
| (c) Asthma  | (d) Hypertension |

16. The purpose of Plate Tapping Test is :

1

- |  |
|--|
| (a) To know the strength of hands                |
| (b) To know the cardiovascular efficiency        |
| (c) To know hand-eye quickness and co-ordination |
| (d) To know the flexibility                      |

17. Friction can be increased by using \_\_\_\_\_.

1

- |                      |                  |
|----------------------|------------------|
| (a) Lubricant        | (b) Polishing    |
| (c) Magnesium Powder | (d) Ball Bearing |

18. Which Newton's Law will apply while taking off in Long Jump ?

1

- |                         |                    |
|-------------------------|--------------------|
| (a) Law of Acceleration | (b) Law of Inertia |
| (c) Law of Reaction     | (d) Law of Gravity |





### खण्ड-ख

19. खेलकूद प्रतियोगिता से पहले व उसके दौरान विपणन (मार्केटिंग) समिति के किन्हीं दो कार्यों की व्याख्या कीजिए ।  $2 \times 1 = 2$
20. घुटनों का टकराना (नॉक-नी) के लिए किन्हीं चार सुधारात्मक उपायों को सूचीबद्ध कीजिए ।  $4 \times \frac{1}{2} = 2$
21. कपालभाति के कोई चार लाभ बताइए ।  $4 \times \frac{1}{2} = 2$
22. प्रोटीन के किन्हीं दो स्रोतों व दो कार्यों की सूची बनाइए ।  $4 \times \frac{1}{2} = 2$
23. गति को निर्धारित करने वाले किन्हीं दो शरीर-क्रियात्मक घटकों को लिखिए ।  $2 \times 1 = 2$
24. 'बिग 5 थियोरी' के अनुसार व्यक्तित्व की कोई दो विशेषताएँ लिखिए ।  $2 \times 1 = 2$

### खण्ड-ग

25. हृदय-श्वसन तंत्र पर व्यायाम के किन्हीं तीन प्रभावों की व्याख्या कीजिए ।  $3 \times 1 = 3$
26. आहार के गैर-पोषक घटकों की संक्षेप में व्याख्या कीजिए । 3
27. महिला एथलीट त्रय के बारे में चर्चा कीजिए । 3
28. 'साई खेलो इंडिया पुष्टि (फिटनेस)' परीक्षण के अनुसार सिट-एण्ड-रीच परीक्षण का उद्देश्य और प्रक्रिया लिखिए ।  $1 + 2 = 3$
29. 'पैरालिंपिक' खेलों पर एक संक्षिप्त टिप्पणी लिखिए । 3
30. पवनमुक्तासन की प्रक्रिया व किन्हीं दो लाभों का वर्णन कीजिए ।  $2 + 1 = 3$

### खण्ड-घ

31. विटामिन व खनिज आवश्यक पोषक तत्व हैं जो हमें विभिन्न रोगों से बचाते हैं तथा शरीर के सामान्य विकास में सहायक होते हैं ।



- (i) \_\_\_\_\_ जल में घुलनशील 8 विटामिनों का समूह है जो कोशिकीय उपापचय के लिए महत्वपूर्ण है । 1
- (ii) विटामिन सी की कमी से \_\_\_\_\_ रोग होता है । 1
- (iii) स्वस्थ हड्डियों व दाँतों के लिए विटामिन \_\_\_\_\_ महत्वपूर्ण है । 1







### SECTION-B

19. Explain any two functions of marketing committee, before and during the sports competition.  $2 \times 1 = 2$
20. Enlist any four corrective measures for Knock-knees.  $4 \times \frac{1}{2} = 2$
21. State any four benefits of Kapalbhathi.  $4 \times \frac{1}{2} = 2$
22. List down any two sources and two functions of protein.  $4 \times \frac{1}{2} = 2$
23. Write any two physiological factors determining speed.  $2 \times 1 = 2$
24. According to 'Big Five Theory', write any two traits of personality.  $2 \times 1 = 2$

### SECTION-C

25. Explain any three effects of exercise on the cardio-respiratory system.  $3 \times 1 = 3$
26. Briefly explain the non-nutritive components of diet. 3
27. Discuss about the female athlete triad. 3
28. Write the purpose and procedure of Sit-and-Reach Test as per 'SAI Khelo India Fitness' Test.  $1 + 2 = 3$
29. Write a short note on 'Paralympic' Games. 3
30. Describe the procedure and any two benefits of Pavanmuktasana.  $2 + 1 = 3$

### SECTION-D

31. Vitamins and minerals are essential nutrients which protect us from various diseases and are helpful for general development of the body.



- (i) \_\_\_\_\_ is a group of 8 water-soluble vitamins which are important for cellular metabolism. 1
- (ii) \_\_\_\_\_ disease is caused due to lack of Vitamin C. 1
- (iii) Vitamin \_\_\_\_\_ is important for healthy bones and teeth. 1





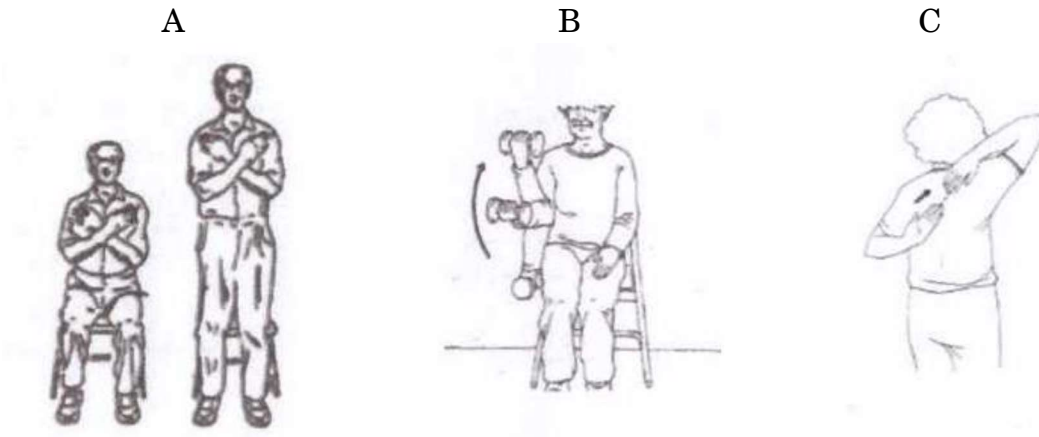
(iv) रक्त के थक्के जमने के लिए विटामिन \_\_\_\_\_ की आवश्यकता होती है । 1  
अथवा

रतौंधी विटामिन \_\_\_\_\_ की कमी से होता है । 1

*(केवल दृष्टिबाधित परीक्षार्थियों के लिए)*

विटामिन क्या है ? विटामिन A तथा D के कार्यों व स्रोतों की व्याख्या कीजिए । 4

32. वृद्धावस्था के दौरान स्वास्थ्य की देखभाल बहुत महत्वपूर्ण है । इसे ध्यान में रखते हुए, वरिष्ठ नागरिकों के लिए पुष्टि (फिटनेस) परीक्षण विकसित किया गया है ताकि उनकी पुष्टि (फिटनेस) का आंकलन किया जा सके । नीचे दिए गए चित्रों को ध्यान से देखिए तथा प्रश्नों के उत्तर दीजिए ।



(i) शरीर के ऊपरी हिस्से के लचीलेपन को मापने वाले परीक्षण का नाम बताइए । 1

(ii) बाजू मोड़ने (आर्म कर्ल) के परीक्षण में महिलाओं के लिए डंबेल का वजन \_\_\_\_\_ पाउंड है । 1

(iii) चेर-स्टैंड परीक्षण का उद्देश्य \_\_\_\_\_ मापना है । 1

(iv) किस परीक्षण में विराम घड़ी का उपयोग नहीं किया जाता है ? 1

अथवा

रिकली व जॉस वरिष्ठ नागरिक परीक्षण \_\_\_\_\_ वर्ष में विकसित किया गया । 1

*(केवल दृष्टिबाधित परीक्षार्थियों के लिए)*

चेर-स्टैंड परीक्षण व बैक-स्ट्रेच परीक्षण की प्रक्रिया का वर्णन कीजिए । 4





(iv) Vitamin \_\_\_\_\_ is needed for blood-clotting. 1

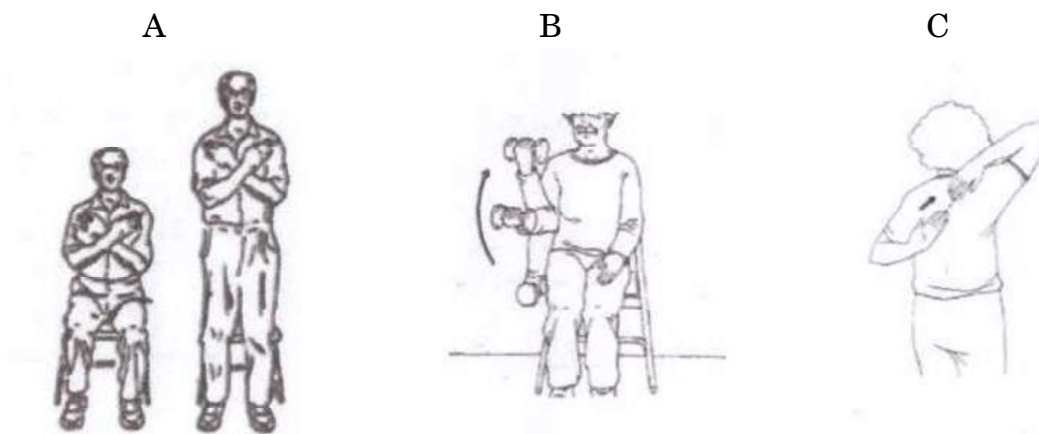
**OR**

Night blindness occurs due to the deficiency of Vitamin \_\_\_\_\_.

**(For Visually Impaired Candidates Only)**

What is Vitamin ? Explain the functions and sources of Vitamin A and D. 4

**32.** Taking care of health during old age is very important. Keeping this in mind, fitness tests have been developed for senior citizens so that their fitness can be assessed. Look at the pictures given below carefully and answer the questions.



(i) Name the test used to measure upper body flexibility. 1

(ii) In Arm Curl Test weight of the dumbbell for women is \_\_\_\_\_ pounds. 1

(iii) Purpose of Chair-Stand Test is to measure \_\_\_\_\_. 1

(iv) In which test is stop watch not used ? 1

**OR**

Rikli and Jones Senior Citizen Test was developed in the year \_\_\_\_\_.

**(For Visually Impaired Candidates Only)**

Describe the procedure of Chair-Stand Test and Back-Scratch Test. 4



33. खिलाड़ियों के जीवन में मनोवैज्ञानिक विशेषताओं की महत्वपूर्ण भूमिका होती है तथा यह खिलाड़ियों के प्रदर्शन, व्यवहार व मनोवैज्ञानिक स्वास्थ्य को प्रभावित कर सकता है। एक बुद्धिमान प्रशिक्षक इन तकनीकों का उपयोग कर खिलाड़ी के प्रदर्शन में बढ़ोतरी कर सकता है।



- (i) किसी बाहरी उत्तेजना की अनुपस्थिति में मन में एक छवि बनाई जा सकती है, जिसे \_\_\_\_\_ कहा जाता है। 1
- (ii) \_\_\_\_\_ एक प्रभावी तकनीक है जो विचारों को नियंत्रित व भावनाओं को प्रभावित करती है। 1
- (iii) निर्धारित समय में किसी प्रयोजन को प्राप्त करने के लिए \_\_\_\_\_ आवश्यक है। 1
- (iv) \_\_\_\_\_ स्वयं में विश्वास, स्वयं के प्रति सम्मान व स्वयं के प्रति भरोसे के आस-पास केन्द्रित होता है। 1

*(केवल दृष्टिबाधित परीक्षार्थियों के लिए)*

“एक खिलाड़ी की आत्म-चर्चा व मानसिक कल्पना उसके प्रदर्शन में सुधार कर सकती है।” चर्चा कीजिए।

2+2=4





33. Psychological attributes have an important role in an athlete's life and can influence the athlete's performance, behaviour and psychological well-being. A wise coach can use these techniques and may enhance the performance of the athlete.



- (i) An image can be created in the mind in the absence of any external stimuli, and this is known as \_\_\_\_\_. 1
- (ii) \_\_\_\_\_ is an effective technique to control thoughts and to influence feelings. 1
- (iii) \_\_\_\_\_ is necessary to achieve the target within a specified time. 1
- (iv) \_\_\_\_\_ is centred around a belief in the self, respect for self and confidence for self. 1

***(For Visually Impaired Candidates Only)***

“A player's self-talk and mental imagery can improve his/her performance.” Discuss. 2+2=4



### खण्ड-ड

34. सभी चरणों को शामिल करते हुए, 15 टीमों का एक नॉकआउट फिक्स्चर तैयार कीजिए।  $5 \times 1 = 5$   
(केवल दृष्टिबाधित परीक्षार्थियों के लिए)  
निम्नलिखित प्रश्नों के उत्तर दीजिए :  $5 \times 1 = 5$
- (i) यदि नॉकआउट टूर्नामेंट में 15 टीमों भाग ले रही हैं, तो खेले जाने वाले मैचों की कुल संख्या बताइए।
- (ii) नॉकआउट टूर्नामेंट में 'बाई' की संख्या की गणना का सूत्र क्या है ?
- (iii) सीडिंग से आप क्या समझते हैं ?
- (iv) लीग टूर्नामेंट्स में फिक्स्चर बनाने में उपयोग की गई पद्धतियों के नाम बताइए।
- (v) लीग टूर्नामेंट में मैचों की संख्या ज्ञात करने का सूत्र क्या है ?
35. प्रक्षेप्य (प्रोजेक्टाइल) को परिभाषित कीजिए। प्रक्षेप्य-पथ को प्रभावित करने वाले किन्हीं चार कारकों का वर्णन कीजिए।  $1 + 4 = 5$
36. गति (प्रक्षेप्य) को परिभाषित कीजिए। इसे विकसित करने की किन्हीं दो विधियों की व्याख्या कीजिए।  $1 + 2 + 2 = 5$
37. विशेष आवश्यकता वाले बच्चों के लिए शारीरिक गतिविधियों को सुलभ बनाने के लिए किन्हीं पाँच रणनीतियों का सुझाव दीजिए।  $5 \times 1 = 5$





## SECTION E

34. Prepare a knockout fixture of 15 teams mentioning all the steps involved.  $5 \times 1 = 5$
- (For Visually Impaired Candidates Only)***
- Answer the following questions :  $5 \times 1 = 5$
- (i) Calculate the number of matches if 15 teams are participating in a knockout tournament.
  - (ii) What is the formula to calculate the number of 'Byes' in a knockout tournament ?
  - (iii) What do you understand by Seeding ?
  - (iv) Name the methods used to prepare the fixtures in league tournaments.
  - (v) What is the formula to calculate the number of matches in a league tournament ?
35. Define Projectile. Describe any four factors that affect projectile trajectory.  $1 + 4 = 5$
36. Define speed. Explain any two methods to develop it.  $1 + 2 + 2 = 5$
37. Suggest any five strategies to make physical activities accessible for children with special needs.  $5 \times 1 = 5$



**Marking Scheme**  
**Strictly Confidential**  
**(For Internal and Restricted use only)**  
**Senior Secondary School Supplementary Examination, July-2023**  
**SUBJECT NAME: PHYSICAL EDUCATION (Subject Code– 048)**

**General Instructions: -**

1	You are aware that evaluation is the most important process in the actual and correct assessment of the candidates. A small mistake in evaluation may lead to serious problems which may affect the future of the candidates, education system and teaching profession. To avoid mistakes, it is requested that before starting evaluation, you must read and understand the spot evaluation guidelines carefully.
2	<b>“Evaluation policy is a confidential policy as it is related to the confidentiality of the examinations conducted, Evaluation done and several other aspects. Its’ leakage to public in any manner could lead to derailment of the examination system and affect the life and future of millions of candidates. Sharing this policy/document to anyone, publishing in any magazine and printing in News Paper/Website etc may invite action under various rules of the Board and IPC.”</b>
3	Evaluation is to be done as per instructions provided in the Marking Scheme. It should not be done according to one’s own interpretation or any other consideration. Marking Scheme should be strictly adhered to and religiously followed. <b>However, while evaluating, answers which are based on latest information or knowledge and/or are innovative, they may be assessed for their correctness otherwise and due marks be awarded to them. In class-XII, while evaluating two competency-based questions, please try to understand given answer and even if reply is not from marking scheme but correct competency is enumerated by the candidate, due marks should be awarded.</b>
4	The Marking scheme carries only suggested value points for the answers. These are in the nature of Guidelines only and do not constitute the complete answer. The students can have their own expression and if the expression is correct, the due marks should be awarded accordingly.
5	The Head-Examiner must go through the first five answer books evaluated by each evaluator on the first day, to ensure that evaluation has been carried out as per the instructions given in the Marking Scheme. If there is any variation, the same should be zero after deliberation and discussion. The remaining answer books meant for evaluation shall be given only after ensuring that there is no significant variation in the marking of individual evaluators.
6	Evaluators will mark( ✓ ) wherever answer is correct. For wrong answer CROSS ‘X’ be marked. Evaluators will not put right (✓) while evaluating which gives an impression that answer is correct and no marks are awarded. <b>This is most common mistake which evaluators are committing.</b>
7	If a question has parts, please award marks on the right-hand side for each part. Marks awarded for different parts of the question should then be totaled up and written in the left-hand margin and encircled. This may be followed strictly.
8	If a question does not have any parts, marks must be awarded in the left-hand margin and encircled. This may also be followed strictly.
9	If a student has attempted an extra question, answer of the question deserving more marks should be retained and the other answer scored out with a note <b>“Extra Question”</b> .
10	No marks to be deducted for the cumulative effect of an error. It should be penalized only once.
11	A full scale of marks _____80_____ (example 0 to 80/70/60/50/40/30 marks as given in Question Paper) has to be used. Please do not hesitate to award full marks if the answer





	deserves it.
12	Every examiner has to necessarily do evaluation work for full working hours i.e., 8 hours every day and evaluate 20 answer books per day in main subjects and 25 answer books per day in other subjects (Details are given in Spot Guidelines).
13	<p>Ensure that you do not make the following common types of errors committed by the Examiner in the past:- Giving more marks for an answer than assigned to it.</p> <ul style="list-style-type: none"> <li>● Wrong totaling of marks awarded on an answer.</li> <li>● Wrong transfer of marks from the inside pages of the answer book to the title page.</li> </ul> <p>Wrong question wise totaling on the title page.</p> <ul style="list-style-type: none"> <li>● Leaving answer or part thereof unassessed in an answer book.</li> <li>●</li> <li>● Wrong totaling of marks of the two columns on the title page.</li> <li>● Wrong grand total.</li> <li>● Marks in words and figures not tallying/not same.</li> <li>● Wrong transfer of marks from the answer book to online award list.</li> <li>● Answers marked as correct, but marks not awarded. (Ensure that the right tick mark is correctly and clearly indicated. It should merely be a line. Same is with the X for incorrect answer.)</li> <li>● Half or a part of answer marked correct and the rest as wrong, but no marks awarded.</li> </ul>
14	While evaluating the answer books if the answer is found to be totally incorrect, it should be marked as cross (X) and awarded zero (0)Marks.
15	Any un assessed portion, non-carrying over of marks to the title page, or totaling error detected by the candidate shall damage the prestige of all the personnel engaged in the evaluation work as also of the Board. Hence, in order to uphold the prestige of all concerned, it is again reiterated that the instructions be followed meticulously and judiciously.
16	The Examiners should acquaint themselves with the guidelines given in the “ <b>Guidelines for spot Evaluation</b> ” before starting the actual evaluation.
17	Every Examiner shall also ensure that all the answers are evaluated, marks carried over to the title page, correctly totaled and written in figures and words.
18	The candidates are entitled to obtain photocopy of the Answer Book on request on payment of the prescribed processing fee. All Examiners/Additional Head Examiners/Head Examiners are once again reminded that they must ensure that evaluation is carried out strictly as per value points for each answer as given in the Marking Scheme.



General Instructions:

- a. The marking scheme carries only suggested value points for the answers.
- b. These are only Guidelines and do not constitute the complete answer.
- c. The students can have their own expression and if the expression is correct, the marks be awarded accordingly.
- d. The candidates would be permitted to obtain a photocopy of the Answer book on request on payment of the prescribed processing fee. All Examiners/Additional Head Examiners are once again reminded that they must ensure that evaluation that is carried out strictly as per value points for each answer as given in the marking Scheme.
- e. All the Head Examiners/Additional Head Examiners/Examiners are instructed that while evaluating the answer scripts, if the answer is found to be totally incorrect, (X) should be marking on the incorrect answer and awarded '0' marks.

**MARKING SCHEME**  
**Senior Secondary School Supplementary Examination, July-2023**  
**PHYSICAL EDUCATION (Subject Code-048)**  
**[Paper Code-75]**

**Maximum Marks: 70**

**Section-A**

Q. No.	EXPECTED ANSWER / VALUE POINTS	Marks
1. Ans.	(a) Technical	1
2. Ans.	(d) Menarche	1
3. Ans.	(c) Shavasana	1
4 Ans.	(d) Eunice Kennedy Shriver	1
5. Ans.	(a) 3 - 7 days	1
6. Ans.	(b) Strength	1
7. Ans.	(b) Ligament	1
8. Ans.	(b) Endomorph	1
9. Ans.	(a) Coupling ability	1
10. Ans.	(c) Assertion (A) is true, but Reason (R) is false.	1
11. Ans.	(a) A-(iv), B-(ii), C-(i), D-(iii)	1
12. Ans.	(d) Energy-giving foods	1
13. Ans.	(c) 8	1
14. Ans.	(b) Pes planus	1
15. Ans.	(a) Obesity	1
16. Ans.	(c) To know hand-eye quickness and co-ordination	1

17. Ans.	(c) Magnesium Powder	1
18. Ans.	(c) Law of Reaction	1
<b>SECTION-B</b>		
19. Ans.	<p><b>Explain any two functions of marketing committee, before and during the sports competition.</b></p> <p>Pre sports event:</p> <ul style="list-style-type: none"> <li>• arranging for sponsorships</li> <li>• publicity of the event</li> <li>• issues related to press release</li> <li>• campaigns related to the event</li> <li>• Arranging food and drink partners</li> </ul> <p style="text-align: right;">(or any relevant 2 points)</p> <p>During sports event:</p> <ul style="list-style-type: none"> <li>• works with media</li> <li>• issues press release</li> <li>• manages methods of communication</li> <li>• fulfils the requirements</li> <li>• arranges for telecast of event.</li> </ul> <p style="text-align: right;">(or any relevant 2 points)</p>	1+1
20. Ans.	<p><b>Enlist any four corrective measures for Knock-knees.</b></p> <p>Corrective Measures for Knock Knees:</p> <ul style="list-style-type: none"> <li>• Exercises like horse-riding</li> <li>• keeping the pillow between the knees and standing erect for some time</li> <li>• Performing Padmasana and Gomukhasana</li> <li>• Vrikshasana also helps in correcting knock knee</li> <li>• leg raises while seated or lying down</li> <li>• Using of walking calipers</li> <li>• Outward walking- try to walk on the outer edge of the foot.</li> </ul> <p style="text-align: right;">(or any other relevant 4 corrective measures)</p>	½ x4
21. Ans.	<p><b>State any four benefits of Kapalbhathi.</b></p> <p><u>Benefit of kapalbhathi</u></p> <ol style="list-style-type: none"> <li>1. Increase the capacity of lungs</li> <li>2. Massages abdominal organs and improves digestion</li> <li>3. Purifies the frontal air sinuses and stimulates the brain</li> <li>4. Useful in treating cold, sinusitis and bronchial infection like asthma</li> <li>5. Increase the metabolic rate and aids in weight loss.</li> <li>6. Improve blood circulation and adds radiance to face</li> <li>7. Removes acidity and gas related problems</li> <li>8. Removes toxins</li> <li>9. Reduce CO<sub>2</sub> levels in the blood</li> <li>10. Relieves anxiety and tension</li> <li>11. Beneficial in curing insomnia</li> <li>12. Increases endorphins, is a mood elevator.</li> </ol> <p style="text-align: right;">(or Any other relevant 4 points)</p>	½ x4



<p><b>22.</b> <b>Ans.</b></p>	<p><b>List down any two sources and two functions of protein.</b></p> <p><u>Sources of proteins</u></p> <ol style="list-style-type: none"> <li>1.Plant sources proteins: Pulses, Beans, Nuts, grain</li> <li>2.Animal sources proteins:&gt;Eggs, meat, Fish, Milk and its products (Any 2 sources)</li> </ol> <p><u>Function of proteins</u></p> <ol style="list-style-type: none"> <li>1.Drives metabolic reactions</li> <li>2.Strengthen the immune system</li> <li>3.Helps in repair and builds body tissues</li> <li>4.Transport and store nutrients and can act as an energy source</li> <li>5.Forms antibodies</li> <li>6.Regulate balance of water and acid and maintains proper PH values</li> <li>7.Forms a part of various enzymes and hormones</li> <li>8.Protiens like keratin, collagen and elastin help form the connective framework of certain structures in the body (any 2 functions)</li> </ol>	<p>½ x4</p>
<p><b>23.</b> <b>Ans.</b></p>	<p><b>Write any two physiological factors determining speed.</b></p> <ol style="list-style-type: none"> <li>1.Nervous system and its mobility</li> <li>2. Composition of muscle Fibers- larger the Fast twitch fibers more the speed</li> <li>3. Flexibility –Better flexibility gives/helps in generating better speed.</li> <li>4.Phosphogen stores-Energy store in the muscle determines speed movement.</li> </ol>	<p>1x2</p>
<p><b>24.</b> <b>Ans.</b></p>	<p><b>According to ‘Big Five Theory’, write any two traits of personality.</b></p> <p>Traits of personality (Big five theory)</p> <ol style="list-style-type: none"> <li>1. <u>Openness</u>-Imaginative, Insightful, creative, Intellectual, Curious, open to learn new things, Independent.</li> <li>2.<u>Conscientiousness</u>-Competence, Self discipline, Goal driven, Thoughtfulness, Hardworking, Organized, Responsible, Laborious</li> <li>3.<u>Extraversion</u>- Energetic, Talkative, Erective, Interactive, Affectionate, Social</li> <li>4.<u>Agreeableness</u>-Friendly, co-operative, Compatible, Kind, Gentle, Generous, Sympathetic, Trustworthy, Helpful</li> <li>5.<u>Neuroticism</u>-Insecure, Nervous, Anxious, Unpleasant Emotions, Impulsive, Hostile (Any 2 traits)</li> </ol>	<p>1x2</p>
<p><b>SECTION-C</b></p>		
<p><b>25.</b> <b>Ans.</b></p>	<p><b>Explain any three effects of exercise on the cardio-respiratory system.</b></p> <p>Effect of exercise on the cardio-Respiratory system</p> <ol style="list-style-type: none"> <li>1.Blood flow increases in arteries and veins (cardiac output and stroke volume)</li> <li>2.Blood pressure decreases</li> <li>3.Number of capillaries increases</li> <li>4.Size of heart increases (Athletic heart)</li> <li>5.Vital capacity of lungs improve</li> <li>6.Aerobic and anaerobic capacity of an individual improves</li> <li>7.Breathing rates decreases</li> <li>8.Decrease in resting heart rate</li> <li>9.Increase in maximum oxygen update(vo<sub>2</sub> max) (any relevant3 points)</li> </ol>	<p>1x3</p>
<p><b>26.</b> <b>Ans.</b></p>	<p><b>Briefly explain the non-nutritive components of diet.</b></p> <p><u>Non-nutritive components of diet</u></p> <ol style="list-style-type: none"> <li>1. <u>Fiber/Roughage</u>-The undigested part of the food which can't be absorbed by human intestinal tract. Add bulk to food. Source-Whole cereals, Fresh fruits/vegetable</li> <li>2. <u>Water</u>-An essential component of diet. Helps in transportation of nutrients to body cells. Helps in excretion of waste products</li> </ol>	<p>1x3</p>

	<p>3. <u>Flavouring Agents</u>-Derived from both nutritive and non nutritive components of food, enhance taste of food</p> <p>4. <u>Colour Compound</u>-Make food more attractive and appealing. Derived from natural/artificial pigments. Natural are derived from plants and animal compounds. (any relevant 3 points)</p>	
27. Ans.	<p><b>Discuss about the female athlete triad.</b> <u>female athlete triad</u></p> <ol style="list-style-type: none"> <li>1. Osteoporosis-Weak bones</li> <li>2. Amenorrhea <ul style="list-style-type: none"> <li>-Primary amenorrhea</li> <li>-Secondary amenorrhea</li> </ul> </li> <li>3. Eating disorder <ul style="list-style-type: none"> <li>-Anorexia nervosa</li> <li>-bulimia nervosa</li> </ul> </li> </ol>	1x3
28. Ans.	<p><b>Write the purpose and procedure of Sit- and -Reach Test as per 'SAI Khelo India Fitness 'Test.</b></p> <p>SIT AND REACH:</p> <p><u>Purpose:</u> Common measure of flexibility, and specifically measures the flexibility of the lower back and hamstring muscles.</p> <p><u>Procedure:</u></p> <ol style="list-style-type: none"> <li>1. This test involves sitting on the floor with legs stretched out straight ahead.</li> <li>2. Shoes should be removed.</li> <li>3. The soles of the feet are placed flat against the Sit and Reach box.</li> <li>3. Both knees should be locked and pressed flat to the floor - the tester may assist by holding them down.</li> <li>3. With the palms facing downwards, and hands on top of each other, the subject reaches forward along the measuring line as far as possible.</li> <li>4. Ensure that the hands remain at the same level, not one reaching further forward than the other.</li> <li>5. After some practice, the subject reaches out and holds that position for one-two seconds while the distance is recorded. Make sure there are no jerky movements.</li> </ol>	1+2
29. Ans.	<p><b>Write a short note on 'Paralympic' Games.</b></p> <p>The Paralympic Games is a periodic series of international multisport events involving athletes with a range of disabilities. These were held for the first time in 1960 in Rome. They are held following the respective summer and winter Olympic games. All Paralympic games are governed by the international Paralympic Committee. The Paralympic athletes compete in six different disability groups- Amputee, cerebral palsy, visual impairment, spinal cord injuries, intellectual disability and 'Les autres' i.e. Dwarfism (or any other relevant points.)</p>	3
30. Ans.	<p><b>Describe the procedure and any two benefits of Pavanmuktasana.</b></p> <p><u>Procedure of Pavanmuktasana</u></p> <ol style="list-style-type: none"> <li>1. Lie on back, stretching your legs straight.</li> <li>2. Now bend your right knee and hold it with your hands, pressing it towards your abdomen. Breathe out, while lifting up your head and try to touch your knee with your chin.</li> <li>3. Breathe in and come to initial position.</li> <li>4. Now repeat the same procedure from left leg.</li> <li>5. Then press your abdomen with both legs, placing your chin between your knees.</li> </ol>	2+1



	<p><u>Benefits:</u>          Stretches the neck and back.          The abdominal muscles are stretched and the internal organs are compressed which increases the blood circulation and stimulates the nerves, increasing the efficiency of the internal organs.          The pressure on the abdomen releases any trapped gases in the large intestine.          Digestive system is improved.          Relieves constipation.          Strengthens the lower back muscles and loosens the spinal vertebrae.          It is beneficial for women too. Massages the pelvic muscles and reproductive organs and is beneficial for menstrual disorders.          Reduces fats in the abdominal area, thighs and buttocks.</p> <p style="text-align: right;">(any 2 benefits)</p>	
<b>SECTION-D</b>		
<p><b>31</b> Ans.</p>	<p>(i) <b>Vitamin B</b> is a group of 8 water-soluble vitamins which are important for cellular metabolism.          (ii) <b>Scurvy</b> disease is caused due to lack of Vitamin C.          (iii) Vitamin <b>D</b> is important for healthy bones and teeth.          (iv) Vitamin <b>K</b> is needed for blood-clotting.</p> <p style="text-align: center;">OR</p> <p>Night blindness occurs due to the deficiency of Vitamin <b>A</b></p> <p><b>For visually impaired</b>  <b>What is Vitamin? Explain the functions and sources of Vitamin A and D.</b>          Vitamins are the chemicals which our body needs in small amounts to function properly.</p> <p style="text-align: center;">(OR)</p> <p>Vitamins are a group of substances that are needed for normal cell function, growth, and development.</p> <p style="text-align: right;">(any one relevant definition)</p> <p><u>Vitamin A:</u>  <u>Sources:</u> milk, cheese, cream, butter, egg yolk, liver, Beta-carotene, dark green leafy vegetables; red and yellow fruits and vegetables (carrots, pumpkin, mangoes, papaya) etc.  <u>Functions:</u> -          1. Needed for vision in dim light          2. Healthy skin and mucous membranes          3. Growth of skeletal and soft tissues          4. Immune system health</p> <p style="text-align: right;">(any 2 sources and any 1 function)</p> <p><u>Vitamin D:</u>  <u>Sources:</u> Egg yolks, liver, fatty fish, fortified foods, etc. When exposed to sunlight, the skin can make vitamin D.  <u>Functions:</u>          1. Needed for proper absorption of calcium and phosphorus          2. Deposition of calcium and phosphorus in bones.</p> <p style="text-align: right;">(any 2 sources and any 1 function)</p>	<p>1x4</p> <p>1+1.5+1.5</p>



<p>32. Ans.</p>	<p>(i) Name the test used to measure upper body flexibility. - <b>Back scratch test</b></p> <p>(ii) In Arm Curl Test weight of the dumbbell for women is <u>5</u> pounds.</p> <p>(iii) Purpose of Chair-Stand Test is to measure <b>lower body strength</b>.</p> <p>(iv) In which test is stop watch not used? -<b>Chair sit and reach test/back scratch test</b> Or Rikli and Jones Senior Citizen Test was developed in the year <b>2001</b></p> <p><b>For visually impaired</b> <b>Describe the procedure of Chair-Stand Test and Back-Scratch Test.</b> <u>CHAIR STAND TEST:</u> Procedure: The chair should be placed against the wall or somewhere where it gets stabilized. Initially, the individual will sit on the chair, back straight, arms crossed and feet firmly on the floor, shoulder width apart. On the command "Go" the individual will stand up completely, then return back to the initial position. This will be counted as one stand. The individual should be motivated to do maximum stands in 30 seconds. <u>BACK SCRATCH TEST:</u> Procedure: In standing position participant will place one hand over the shoulder and one hand in the middle of the back and try to touch or overlap each other.</p>	<p>1x4</p> <p>2+2</p>
<p>33 Ans.</p>	<p>(i) An image can be created in the mind in the absence of any external stimuli, and this is known as <b>mental imagery</b></p> <p>(ii) <b>Self talk</b> is an effective technique to control thoughts and to influence feelings.</p> <p>(iii) <b>Goal setting</b> is necessary to achieve the target within a specified time.</p> <p>(iv) <b>Self esteem</b> is centered around a belief in the self, respect for self and confidence for self.</p> <p><b>For visually impaired</b> <b>"A player's self-talk and mental imagery can improve his/her performance".</b> <b>Discuss.</b> <u>Benefit of mental imagery for sportsperson</u> 1.Help athlete to maintain a vision to achieve 2.Assist them in setting their goals 3.Stay motivated during the training session and competition 4.Reduces competition stress 5.Develops confidence in athlete 6.Enhance efficiency and abilities 7.Improves overall performance 8.Overcome mental obstacles such as anxiety ,fear etc 9.Promote physical rehabilitation and injury recovery 10.Enhanced focus and concentration 11.Help in learn and practice techniques (any 2 points explained)</p> <p><u>Benefit of Self-talk for sportsperson</u> 1.Building and developing self efficacy 2.Controlling effort 3.Creating and changing mood 4.Skill acquisition 5.Focussing attention/concentration 6.Better handling of mistake (any 2 points explained)</p>	<p>1x4</p> <p>2+2</p>



**SECTION-E**

**34. Prepare a knockout fixture of 15 teams mentioning all the steps involved.**

**Ans.**

3+2

Knockout fixture of 15 teams

Step 1 - Total no of teams (N)=15

Total no of matches to be played=(N-1) =15-1=14

Step 2 - No of byes (NB) = (Next highest no of power of two – N)

$$NB = 2^4 - N = 16 - 15 = 1$$

Step 3 -Teams in upper half =  $\frac{N+1}{2} = \frac{15+1}{2} = \frac{16}{2} = 8$  teams

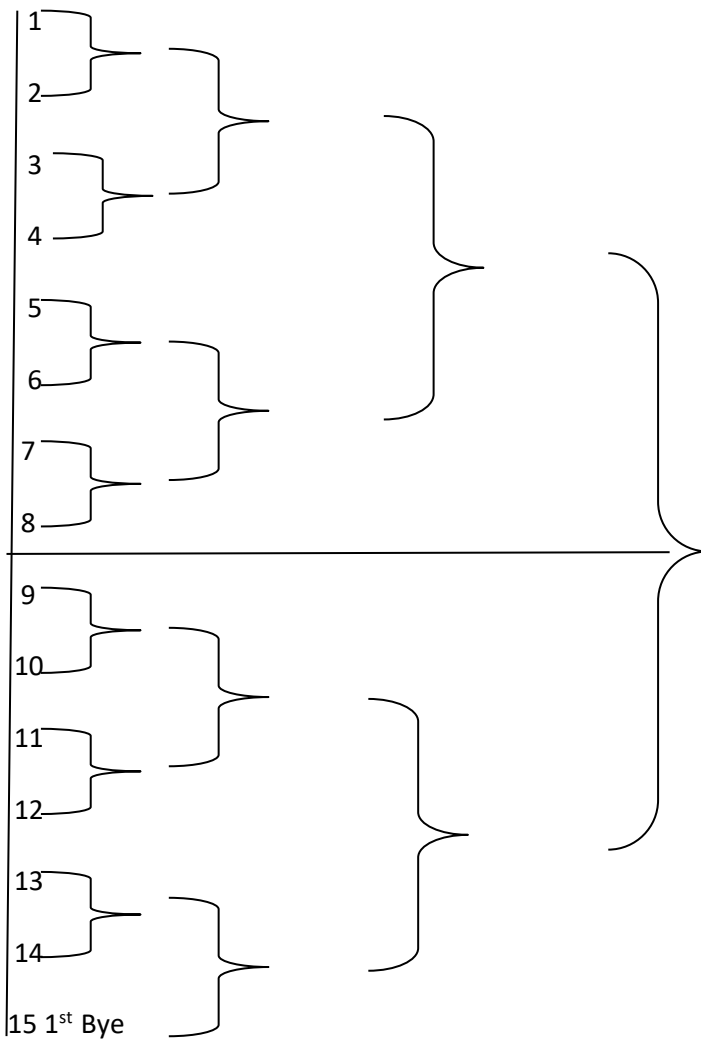
Teams in lower half =  $\frac{N-1}{2} = \frac{15-1}{2} = \frac{14}{2} = 7$  teams

Step 4 – No of Byes in upper half =  $\frac{NB-1}{2} = \frac{1-1}{2} = 0$  Byes

No of Byes in lower half =  $\frac{NB+1}{2} = \frac{1+1}{2} = \frac{2}{2} = 1$  Byes

The first Bye is given to the last team of lower half

1<sup>st</sup> round    2<sup>nd</sup> round    3<sup>rd</sup> round    4<sup>th</sup> round



	<p><b>For visually impaired</b></p> <p><b>(i) Calculate the number of matches if 15 teams are participating in a knockout tournament.</b>          No. of matches = <math>N-1</math>  <math>=15-1 = 14</math> matches</p> <p><b>(ii) What is the formula to calculate the number of 'Byes' in a Knockout tournament?</b>          No of byes = Next power of 2 no. (<math>2^x</math>) - N</p> <p><b>(iii) What do you understand by Seeding?</b>  <u>Seeding</u> – Arranging the strong teams in the appropriate position in a knockout tournament, so that they do not meet in the preliminary round.</p> <p><b>(iv) Name the methods used to prepare the fixtures in league tournaments.</b>          Stair case, Cyclic, Tabular method (any 2 methods)</p> <p><b>(v) What is the formula to calculate the number of matches in a league tournament?</b>          No of matches in league tournament = <math>\frac{N(N-1)}{2}</math></p>	1x5
<p><b>35.</b> <b>Ans.</b></p>	<p><b>Define Projectile. Describe any four factors that affect projectile trajectory.</b>  <u>Projectile</u> –Any object that can be thrown, hurled, fired, pitched, tossed and flung in the air. It is a body which is thrown with some initial velocity and then allowed to be acted upon by the forces of gravity and possible drag.  <u>Factors that affect projectile trajectory</u>          1.<u>Angle of projection</u>- When it is <math>45^\circ</math>, maximum horizontal distance is achieved          2. <u>Initial velocity</u> – The horizontal range depends on initial velocity .Greater the initial velocity applied on the projectile during release, greater horizontal distance is achieved.          3. <u>Gravity</u> –At the surface of earth the gravity is 9.8 meters, at different places on earth its value changes. At high altitude its value decrease and result is better distance in jumping.          4. <u>Air resistance</u> –Surface area, speed, surface of object and mass of object all have an impact on air resistance.          5. <u>Spin</u>- It changes path of projectile. The amount and direction of spin directly affects the distance that projectile travels because the air pressure acts on the ball.          (any 4 factors)</p>	1+4
<p><b>36.</b> <b>Ans.</b></p>	<p><b>Define speed. Explain any two methods to develop it.</b>  <u>Speed</u>          -Capability of the body to perform successive movement at fastest rate.          -Ability to execute motor movements as quickly as possible.  <u>Method of speed development</u>          1.<u>Acceleration runs</u>          Method used to develop speed while attaining max. speed from a static position. A sports person is required to run a specific distance, gain max. speed at the earliest and finish the specified distance at that speed. These runs are repeated with sufficient rest in between. No of acceleration runs should be set as per age, capacity and fitness of the athlete.          2.<u>Pace runs</u>          Running a set distance at uniform speed. Usually includes races of 800mts and above. It is important to keep pace in mind when running middle and long distance races.          In the beginning of the race, the race should not be too high and pace should be maintained throughout .Repetition of pace runs can be done as per level of athlete.</p>	1+2+2



37.	<p><b>Suggest any five strategies to make physical activities accessible for children with special needs.</b></p>	1x5
Ans.	<p><u>Strategies to make Physical Activities accessible for Children with Special Needs</u>  The following Strategies should be taken into consideration to make physical activities accessible for the children with Special needs</p> <ol style="list-style-type: none"> <li>1. Medical Checkup- To assess type of disability.</li> <li>2. Physical Activities must be based on interests of Children.</li> <li>3. Equipment related to physical activities should be according to the needs of children.</li> <li>4. Specific Environment and space should be provided. The playing area should be easily accessible.</li> <li>5. Variety of different Instructional strategies should be used in verbal, visual and peer teaching form.</li> <li>6. Rules should be modified according to the needs of Children with disabilities.</li> <li>7. Children’s Previous Experience must be taken into Consideration.</li> <li>8. Graded Activities.</li> <li>9. Inclusive strategies.</li> <li>10. Psychological strategies - motivation, Learning new skills</li> </ol> <p style="text-align: right;">(Any relevant 5 strategies)</p>	