

Series : 4YWZX



SET - 4

रोल नं.
Roll No.

प्रश्न-पत्र कोड
Q.P. Code

75

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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 ।
- कृपया जाँच कर लें कि इस प्रश्न-पत्र में 37 प्रश्न हैं ।
- प्रश्न-पत्र में दाहिने हाथ की ओर दिए गए प्रश्न-पत्र कोड को परीक्षार्थी उत्तर-पुस्तिका के मुख-पृष्ठ पर लिखें ।
- कृपया प्रश्न का उत्तर लिखना शुरू करने से पहले, उत्तर-पुस्तिका में यथा स्थान पर 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 परीक्षार्थी 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.
- Please check that this question paper contains 37 questions.
- 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 write down the serial number of the question in the answer-book at the given place 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 candidates 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 पाँच खण्ड और 37 प्रश्न हैं।
- (ii) खण्ड-क में प्रत्येक 1 अंक वाले 1-18 बहुविकल्पी प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।
- (iii) खण्ड-ख में 19-24 तक अति लघु-उत्तरीय प्रकार के प्रश्न हैं, जिनमें से 5 प्रश्न करने हैं। प्रत्येक प्रश्न 2 अंक का है और उत्तर 60-90 शब्दों में होना चाहिए।
- (iv) खण्ड-ग में 25-30 तक लघु-उत्तरीय प्रकार के प्रश्न हैं, जिनमें से 5 प्रश्न करने हैं। प्रत्येक प्रश्न 3 अंक का है और उत्तर 100-150 शब्दों में होना चाहिए।
- (v) खण्ड-घ में 31-33 प्रकरण अध्ययन प्रश्न हैं। प्रत्येक प्रश्न 4 अंक का है। आंतरिक विकल्प उपलब्ध है।
- (vi) खण्ड-ङ में 34-37 दीर्घ-उत्तरीय प्रश्न हैं, जिनमें से 3 प्रश्न करने हैं। प्रत्येक प्रश्न 5 अंक का है और उत्तर 200-300 शब्दों से अधिक नहीं होना चाहिए।

खण्ड – क

(सभी प्रश्न अनिवार्य हैं।)

1. प्रतियोगिता के बाद निम्नलिखित में से कौन सी एक जिम्मेदारी तकनीकी समिति की है ? 1
(A) उपकरण क्रय करने की माँग (B) उपकरण व स्टेशनरी की व्यवस्था
(C) अधिकारियों की व्यवस्था (D) मैदान का रखरखाव
2. निम्नलिखित में से कौन सा एक, अंतःप्राचीर प्रतियोगिता का उद्देश्य है ? 1
(A) प्रतियोगिता के उच्चतम स्तर पर उच्च प्रदर्शन हासिल करना।
(B) अन्य संस्थाओं के साथ एकीकरण की भावना विकसित करना।
(C) खेल में व्यवसाय चुनने के अवसर प्रदान करना।
(D) संस्थान में स्वास्थ्य व मनोरंजन को बढ़ावा देना।
3. निम्नलिखित में से कौन सी विकृति शरीर के निचले भाग से संबंधित नहीं है ? 1
(A) घुटने टकराना (B) स्कोलियोसिस
(C) धनुषाकार टांगें (D) चपटा-पाँव
4. तेज चलना, दौड़ना, साइकिल चलाना और कूदने का सम्बन्ध किन गतिविधियों से है ? 1
(A) तीव्र गतिविधियाँ (B) शक्ति की गतिविधियाँ
(C) सहनक्षमता की गतिविधियाँ (D) समन्वयात्मक गतिविधियाँ
5. निर्धारित पाठ्यक्रम के अनुसार, सूर्यभेदन प्राणायाम की संस्तुति _____ के लिए की जाती है। 1
(A) मोटापे (B) उच्च रक्तचाप
(C) अस्थमा (D) पीठ-दर्द



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 their answer 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 their answer 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 types and their answer should not exceed 200-300 words. Attempt any 3.

SECTION – A

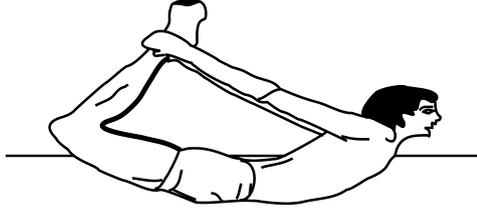
(All Questions are compulsory.)

1. Which one of the following is a post-competition responsibility of the technical committee ? 1
 - (A) Requisition to purchase equipment
 - (B) Arrangement of equipment and stationery
 - (C) Arrangement of officials
 - (D) Maintenance of the field
2. Which of the following is an objective of Intramural tournaments ? 1
 - (A) To achieve high performance at the highest level of the tournament.
 - (B) To develop the feeling of integration with other institutions.
 - (C) To provide opportunities for choosing a career in sports.
 - (D) To promote health and recreation at the institution.
3. Which of the following deformity is NOT related to lower extremities ? 1
 - (A) Knock-Knee
 - (B) Scoliosis
 - (C) Bow-legs
 - (D) Flat-foot
4. Brisk walking, running, bicycling and jumping are related to which activities ? 1
 - (A) Speed activities
 - (B) Strength activities
 - (C) Endurance activities
 - (D) Co-ordinative activities
5. As per prescribed syllabus, Suryabhedan Pranayam is recommended for _____ 1
 - (A) Obesity
 - (B) Hypertension
 - (C) Asthma
 - (D) Back pain



6. आसन को पहचानिये :

1



- (A) चक्रासन (B) धनुरासन
(C) हलासन (D) उष्ट्रासन

(केवल दृष्टिबाधित परीक्षार्थियों के लिए)

निम्नलिखित में से कौन सी पश्चिमोत्तानासन की सही मुद्रा है ?

1

- (A) खड़े रहने की स्थिति में आगे की ओर झुकना
(B) बैठी अवस्था में आगे की ओर झुकना
(C) पेट के बल लेटी अवस्था में सिर ऊपर उठाना
(D) पीठ के बल लेटी अवस्था में सिर ऊपर उठाना

7. नीचे दो कथन दिए गए हैं, एक को अभिकथन (A) और दूसरे को कारण (R) के रूप में अंकित किया गया है। दोनों कथनों को ध्यानपूर्वक पढ़िए :

1

अभिकथन (A) : अंतर्राष्ट्रीय पैरालंपिक समिति (आई.पी.सी.) ने एक वर्गीकरण प्रक्रिया विकसित की है, जो पैरालंपिक आंदोलन में सभी खिलाड़ियों और खेलों के लिए खेल उत्कृष्टता में योगदान दे सकती है, और समान प्रतिस्पर्धा प्रदान कर सकती है।

कारण (R) : वर्गीकरण प्रक्रिया दो भूमिकाएँ निभाती हैं। पहला यह निर्धारित करना है कि कौन इसका पात्र है और दूसरा प्रतियोगिता के उद्देश्य से खिलाड़ियों के समूह बनाना है।

उपर्युक्त दो कथनों के संदर्भ में, निम्नलिखित में से कौन सा सही है ?

- (A) अभिकथन (A) और कारण (R) दोनों सही हैं और कारण (R), अभिकथन (A) की सही व्याख्या है।
(B) अभिकथन (A) और कारण (R) दोनों सही हैं, परन्तु कारण (R), अभिकथन (A) की सही व्याख्या नहीं है।
(C) अभिकथन (A) सही है, परन्तु कारण (R) गलत है।
(D) अभिकथन (A) गलत है, परन्तु कारण (R) सही है।

8. _____ वे रंग हैं, जो डेफलिम्पिक प्रतीक चिह्न में चार क्षेत्रीय संघों का प्रतिनिधित्व करते हैं।

1

- (A) लाल, नीला, काला और पीला (B) नीला, पीला, काला और लाल
(C) लाल, नीला, पीला और हरा (D) नीला, काला, लाल और पीला

9. किस प्रकार के लीवर में आधार और बल के बीच में भार प्रतिरोध होता है ?

1

- (A) प्रथम श्रेणी लीवर में (B) द्वितीय श्रेणी लीवर में
(C) (A) और (B) दोनों में (D) तृतीय श्रेणी लीवर में



6. Identify the asana :

1



- (A) Chakrasana (B) Dhanurasana
(C) Halasana (D) Ushtrasana

(For Visually Impaired Candidates Only)

Which one of the following is the correct pose of Paschimottanasana ?

1

- (A) Forward bending in a standing position.
(B) Forward bending in the sitting position.
(C) Head raised in the prone position.
(D) Head raised in the supine position.

7. Given below are two statements, one of which is labelled as Assertion (A) and other is labelled as Reason (R). Read both the statements carefully :

1

Assertion (A) : The International Paralympic Committee (IPC), has developed a classification process which can contribute “to sporting excellence for all athletes and sports in the Paralympic Movement, and provide equitable competition.

Reason (R) : The classification process serves two roles. The first is to determine who is eligible and the second is to grouping the sports people for the purpose of competitions.

In the context of the above two statements, which one of the following is correct ?

- (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 Assertion (A).
(C) Assertion (A) is true, but Reason (R) is false.
(D) Assertion (A) is false, but Reason (R) is true.

8. _____ are the colours, that represent the four regional confederation in the Deaflympic logo.

1

- (A) Red, blue, black and yellow (B) Blue, yellow, black and red
(C) Red, blue, yellow and green (D) Blue, black, red and yellow

9. What type of lever has the load resistance between the fulcrum and the force ?

1

- (A) First class lever (B) Second class lever
(C) Both (A) and (B) (D) Third class lever



10. विटामिन 'C' का वैज्ञानिक नाम _____ है । 1
(A) बिटाडिन अम्ल (B) एस्कॉर्बिक अम्ल
(C) ऐसीटोनिक अम्ल (D) हाइड्रोक्लोरिक अम्ल
11. नीचे दो कथन दिए गए हैं, एक को अभिकथन (A) और दूसरे को कारण (R) के रूप में अंकित किया गया है। दोनों कथनों को ध्यानपूर्वक पढ़िए : 1
अभिकथन (A) : अधिक रंगीन सब्जियाँ, फल और अन्य पादप खाद्य पदार्थ खाने से कैंसर के खतरे को कम किया जा सकता है, जिनमें कुछ फाइटोकेमिकल्स होते हैं।
कारण (R) : आहार के गैर-पोषक घटक सन्तुलित आहार का एक हिस्सा हैं।
उपर्युक्त दो कथनों के संदर्भ में, निम्नलिखित में से कौन सा सही है ?
(A) अभिकथन (A) और कारण (R) दोनों सही हैं और कारण (R), अभिकथन (A) की सही व्याख्या है।
(B) अभिकथन (A) और कारण (R) दोनों सही हैं, परन्तु कारण (R), अभिकथन (A) की सही व्याख्या नहीं है।
(C) अभिकथन (A) सही है, परन्तु कारण (R) गलत है।
(D) अभिकथन (A) गलत है, परन्तु कारण (R) सही है।
12. किस परीक्षण में प्रारंभिक और अंतिम गणना के बीच निकटतम सेंटीमीटर तक स्कोर दर्ज किया जाता है ? 1
(A) आंशिक कर्ल-अप (B) बैक स्ट्रेच परीक्षण
(C) सिट एण्ड रीच परीक्षण (D) चेरर सिट एण्ड रीच परीक्षण
13. सूची – I में अस्थिभंग के प्रकार और सूची – II में उनके लक्षण दिए गए हैं : 1

सूची – I	सूची – II
अस्थिभंग के प्रकार	लक्षण
(a) अनुप्रस्थ	i. अस्थि का तिरछा टूटना
(b) तिर्यक	ii. अस्थि का कई टुकड़ों में कुचलना
(c) ग्रीन स्टिक	iii. अस्थि का आर-पार सीधा टूटना
(d) विखंडित	iv. कोमल अस्थि, जिसमें हड्डी मुड़ जाती है

सूची – I की मदों का सूची – II से मिलान कीजिए तथा निम्नलिखित में से सही विकल्प का चुनाव कीजिए :

(a)	(b)	(c)	(d)
(A) iii	iv	ii	i
(B) iii	i	iv	ii
(C) i	ii	iii	iv
(D) ii	iii	iv	i
14. “गोल्फ की गेंद तब तक स्थिर रहती है जब तक उस पर गोल्फ क्लब से प्रहार न किया जाए।” – यह कथन किस ओर इंगित करता है ? 1
(A) जड़त्व का नियम (B) त्वरण का नियम
(C) गुरुत्वाकर्षण का नियम (D) प्रतिक्रिया का नियम



10. The scientific name of Vitamin 'C' is _____. 1
(A) Betadine acid (B) Ascorbic acid
(C) Acetonic acid (D) Hydrochloric acid

11. Given below are two statements, one of which is labelled as Assertion (A) and other is labelled as Reason (R). Read both the statements carefully : 1
Assertion (A) : The risk of cancer can be reduced by eating more colourful vegetables, fruits and other plant-foods that have certain phytochemicals in them.
Reason (R) : Non-nutritive components of diet are part of balance diet.

In the context of the above two statements, which one of the following is correct ?

- (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 Assertion (A).
(C) Assertion (A) is true, but Reason (R) is false.
(D) Assertion (A) is false, but Reason (R) is true.
12. In which test, score is recorded to the nearest centimetre between the initial and final score ? 1
(A) Partial curl-up (B) Back stretch test
(C) Sit and reach test (D) Chair sit and reach test

13. Given below are types of fractures in List – I with their features in List – II : 1

List – I		List – II	
Types of Fractures		Features	
(a) Transverse		i. Bone breaks diagonally	
(b) Oblique		ii. Bone is crushed into number of pieces	
(c) Green stick		iii. Straight break right across a bone.	
(d) Comminuted		iv. Soft bone, in which bone bends	

Match the items of List – I with List – II and choose the correct option from the following :

- | | | | | |
|---------|-----|-----|-----|--|
| (a) | (b) | (c) | (d) | |
| (A) iii | iv | ii | i | |
| (B) iii | i | iv | ii | |
| (C) i | ii | iii | iv | |
| (D) ii | iii | iv | i | |
14. "The golf ball remains at rest until it is struck by a golf club." This statement indicates – 1
(A) Law of Inertia (B) Law of Acceleration
(C) Law of Gravity (D) Law of Reaction



15. नीचे सूची – I में व्यक्तित्व के पाँच बड़े सिद्धान्तों के लक्षण हैं और सूची – II में उनकी विशेषताएँ दी गई हैं : 1

सूची – I

5 बड़े लक्षण

- | | |
|--------------------|---|
| (a) खुलापन | i. सक्रिय, आशावादी व सामाजिक |
| (b) बहिर्मुखता | ii. असुरक्षित, घबराया हुआ व चिंतित |
| (c) मनोविक्षुब्धता | iii. रचनात्मक, नई चुनौतियों से निपटने पर केन्द्रित व जिज्ञासु |
| (d) सहमतता | iv. मिलनसार, मददगार व भरोसेमंद |

सूची – II

विशेषताएँ

सूची – I की मदों का सूची – II से मिलान कीजिए और निम्नलिखित में से सही विकल्प चुनिए :

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

16. _____ की अवधारणा आमतौर पर किसी व्यक्ति के स्वयं के प्रति उसके मूल्यांकन या दृष्टिकोण को संदर्भित करती है । 1

- | | |
|-------------------|---------------------|
| (A) मानसिक-कल्पना | (B) आत्म-सम्मान |
| (C) आत्म-चर्चा | (D) लक्ष्य-निर्धारण |

17. स्वीडिश शब्द स्पीड प्ले को _____ के रूप में भी जाना जाता है । 1

- | | |
|------------------------|-----------------|
| (A) फार्टलेक प्रशिक्षण | (B) अंतराल विधि |
| (C) निरंतर विधि | (D) पेस विधि |

18. किस प्रकार के व्यायामों में गतिक्रिया प्रत्यक्ष रूप से दिखाई नहीं देती है ? 1

- | | |
|-----------------|-------------------|
| (A) आइसोटॉनिक | (B) आइसोकाइनेटिक |
| (C) आइसोमेट्रिक | (D) प्लायोमेट्रिक |

खण्ड – ख

(किन्हीं 5 प्रश्नों के उत्तर दीजिए ।)

19. धनुषाकार टाँगों और गोल कन्धों के लिए दो-दो सुधारात्मक उपाय सुझाइये । 1 + 1 = 2

20. विशेष आवश्यकता वाले बच्चों के लिए शारीरिक गतिविधियों में भाग लेने के चार लाभों को सूचीबद्ध कीजिए । $\frac{1}{2} \times 4 = 2$

21. खाद्य-पदार्थों से संबंधित किन्हीं दो मिथकों और उनसे संबंधित तथ्यों का उल्लेख कीजिए । 1 + 1 = 2

22. हार्वर्ड स्टेप परीक्षण के मानदंडों तथा फिटनेस इंडेक्स स्कोर के सूत्र का उल्लेख कीजिए । 1 + 1 = 2

23. व्यायाम अनुपालन को बढ़ाने के लिए किन्हीं दो रणनीतियों का उल्लेख कीजिए । 1 + 1 = 2

24. जब कुश्ती में खिलाड़ी मैट पर गिरते हैं, तो वे अपने हाथ, घुटने और पैर क्यों फैलाते हैं ? अपने उत्तर का औचित्य सिद्ध कीजिए । 2



15. Given below are traits of the big five theories of personality in List – I with their characteristics in List – II : 1

List – I
Traits of Big 5

- (a) Openness
(b) Extroversion
(c) Neuroticism
(d) Agreeableness

List – II
Characteristics

- i. Active, optimistic and social
ii. Insecure, nervous and anxious
iii. Creative, focused on tackling new challenges and curious
iv. Friendly, helpful and trustworthy

Match the items of List – I with List – II and choose the correct option from the following :

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

16. The concept of _____, generally refers to a person's evaluation of, or attitude towards, him or herself. 1
(A) Mental-imagery (B) Self-esteem
(C) Self-talk (D) Goal-setting
17. The Swedish word speed play is also known as _____. 1
(A) Fartlek training (B) Interval method
(C) Continuous method (D) Pace method
18. In which type of exercises movement can NOT be seen directly ? 1
(A) Iso-tonic (B) Iso-kinetic
(C) Iso-metric (D) Plyometric

SECTION – B

(Attempt any 5 questions.)

19. Suggest any two corrective measures for each, bow legs and round shoulders. 1 + 1 = 2
20. Enlist four benefits of participation in physical activities for children with special needs. $\frac{1}{2} \times 4 = 2$
21. Enumerate any two myths related to food items with their respective facts. 1 + 1 = 2
22. Mention the fitness index score formula and its norms for the Harvard Step Test. 1 + 1 = 2
23. Mention any two strategies for enhancing adherence to exercise. 1 + 1 = 2
24. When wrestlers fall on the mat, why they spread their arms, knee and legs ? Justify your answer. 2



खण्ड – ग

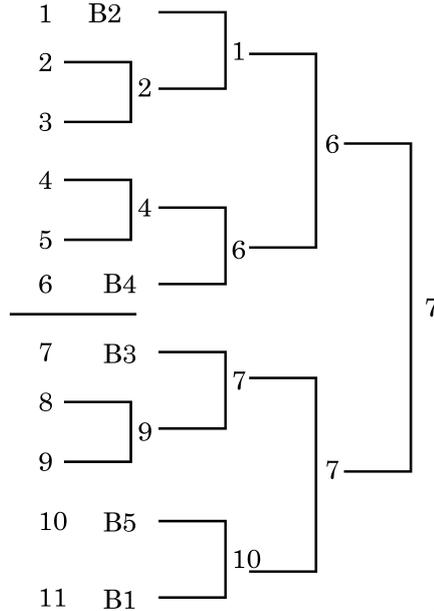
(किन्हीं 5 प्रश्नों के उत्तर दीजिए।)

25. “किसी भी देश की प्रगति उसके सामुदायिक खेलों के आयोजन से प्रतिबिंबित होती है।” इस कथन के संदर्भ में “विशिष्ट कारण के लिए दौड़” तथा “एकता के लिए दौड़” की रूपरेखा तैयार कीजिए। $1\frac{1}{2} + 1\frac{1}{2} = 3$
26. खेलों में महिलाओं की भागीदारी से होने वाले शारीरिक व मनोवैज्ञानिक लाभों का वर्णन कीजिए। $1 \times 3 = 3$
27. लचीलेपन को परिभाषित कीजिए। एक जिमनास्ट के लचीलेपन को सुधारने की विधियों का वर्णन कीजिए। $1 + 2 = 3$
28. प्रतियोगिता के दौरान आहार के किन्हीं तीन महत्वों का उल्लेख कीजिए। $1 \times 3 = 3$
29. निम्न का वर्णन कीजिए : $1\frac{1}{2} + 1\frac{1}{2} = 3$
(a) अवशिष्ट मात्रा (रेसिडुअल वॉल्यूम) (b) आघात मात्रा (स्ट्रोक वॉल्यूम)
30. शत्रुतापूर्ण और निमित्त-आक्रामकता की तुलना कीजिए व अंतर बताइये। 3

खण्ड – घ

(आंतरिक विकल्प उपलब्ध हैं)

31. आरती ने अपने क्षेत्र में खो-खो प्रतियोगिता आयोजित करने के लिए 11 टीमों का एक फिक्सचर तैयार किया, जैसा कि नीचे दिखाया गया है : 4



ऊपर दिए गए फिक्सचर के आधार पर निम्नलिखित प्रश्नों के उत्तर दीजिए :

- (i) इस प्रतियोगिता में बाई नहीं मिलने वाली टीमों की संख्या क्या है ?
(A) 06 (B) 07
(C) 08 (D) 09
- (ii) यदि उपरोक्त फिक्सचर 48 टीमों का होता तो बाई की संख्या _____ होती।



SECTION – C

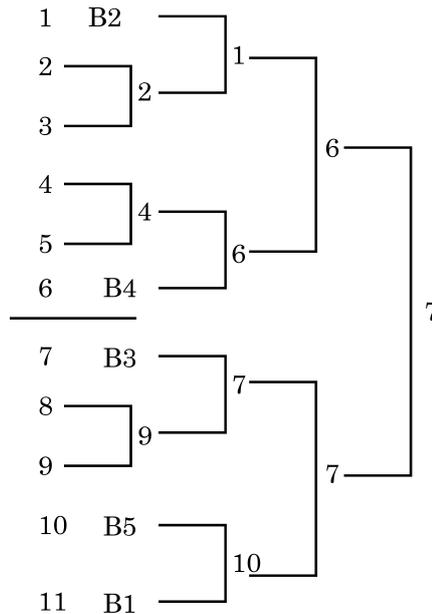
(Attempt any 5 questions.)

25. “The organisation of its community sports reflects the progress of any country.” In the context of this statement, outline ‘Run for a specific cause’ and ‘Run for unity’. $1\frac{1}{2} + 1\frac{1}{2} = 3$
26. Describe the physical and psychological benefits of women’s participation in sports. $1 \times 3 = 3$
27. Define flexibility. Explain the methods to improve flexibility for a gymnast. $1 + 2 = 3$
28. Mention any three importance of diet during competition. $1 \times 3 = 3$
29. Describe the following : $1\frac{1}{2} + 1\frac{1}{2} = 3$
(a) Residual Volume (b) Stroke Volume
30. Compare and contrast the hostile and instrumental aggression. **3**

SECTION – D

(Internal choices available)

31. Aarti prepared a fixture of 11 teams to conduct Kho-Kho tournament in her locality as shown below : **4**



Based on the above given fixture, answer the following questions :

- (i) What is the number of Non-bye teams in this tournament ?
(A) 06 (B) 07
(C) 08 (D) 09
- (ii) If the above fixture had been of 48 teams, then the number of byes would have been _____.



(iii) 7वाँ मैच टीम संख्या _____ और _____ के बीच खेला जाएगा ।

अथवा

निचले अर्ध की बाई की संख्या ज्ञात करने का सूत्र लिखिए ।

(iv) वह प्रावधान जिसमें रैंकिंग या पूर्व प्रदर्शन के आधार पर अच्छी टीमों को अलग-अलग अर्ध अथवा पूल में रखा जाता है न कि ड्रा के आवंटन से, ताकि वे पहले दौर में अन्य टीमों के साथ न खेलें, इसे _____ के रूप में जाना जाता है ।

(A) बाई

(B) ब्रिटिश पद्धति

(C) सीडिंग

(D) अमेरिकन पद्धति

(केवल दृष्टिबाधित परीक्षार्थियों के लिए)

तरुण के शारीरिक शिक्षक ने उसे विद्यालय में कबड्डी प्रतियोगिता आयोजित करने की जिम्मेदारी दी । तरुण ने अपने सहपाठियों के साथ मिलकर कई समितियों का गठन किया और कबड्डी प्रतियोगिता के लिए 17 टीमों का एक नॉकआउट फिक्सचर तैयार किया । मैच के आयोजन में उसे कई चुनौतियों का सामना करना पड़ा, लेकिन अन्ततः उसे सफलता मिली ।

4

उपर्युक्त प्रकरण तथा अपने पूर्व ज्ञान के आधार पर निम्नलिखित प्रश्नों के उत्तर दीजिए :

(i) इस प्रतियोगिता में कुल कितने मैच खेले जाएँगे ?

(ii) _____ लागत और समय बचाता है तथा बाहर होने के डर से प्रत्येक मैच को प्रखर बनाता है ।

(A) नॉकआउट टूर्नामेंट

(B) लीग टूर्नामेंट

(C) राउंड-रॉबिन टूर्नामेंट

(D) कम्बिनेशन टूर्नामेंट

(iii) मैच के दौरान एक टीम के दो खिलाड़ी घायल हो गए, किस समिति के द्वारा इसका प्रबंधन किया जायेगा ?

(A) लॉजिस्टिक समिति

(B) तकनीकी समिति

(C) वित्त समिति

(D) विपणन समिति

(iv) निचले अर्ध में उपरोक्त टीमों को बाई आबंटित करने के लिए किस सूत्र का उपयोग किया गया था ?

अथवा

ऊपरी अर्ध में उपरोक्त टीमों को बाई आबंटित करने के लिए किस सूत्र का उपयोग किया गया था ?

32. शारीरिक शिक्षा की कक्षा के दौरान, विवेक के शारीरिक शिक्षा शिक्षक ने विशेष आवश्यकता वाले बच्चों के खेलों के बारे में जानकारी प्रदान की । उन्होंने बताया कि पैरालंपिक, डेफलंपिक और स्पेशल ओलंपिक के लिए उन्हें किस तरह तैयार किया जाता है । इसके अतिरिक्त उन्होंने ऐसे बच्चों के प्रदर्शन को सुधारने के लिए उन्हें शारीरिक गतिविधियों में भाग लेने के लिए प्रेरित करने की सलाह भी दी ।

4

उपर्युक्त प्रकरण और अपने पूर्व ज्ञान के आधार पर निम्नलिखित प्रश्नों के उत्तर दीजिए :

(i) विशेष ओलंपिक में भाग लेने के लिए न्यूनतम आयु _____ वर्ष होनी चाहिए ।

(A) 7

(B) 6

(C) 8

(D) 9



(iii) 7th match will be played between team number _____ and _____.

OR

Write the formula to calculate byes in lower half.

(iv) The provision in which good teams are placed in different half or pool, based on their ranking or previous performance not by allotment of draw, so that they do not play with other teams in the first round is known as _____.

- (A) Bye (B) British method
(C) Seeding (D) American method

(For Visually Impaired Candidates Only)

Tarun's physical education teacher gave him the responsibility of organizing a Kabaddi competition in school. Tarun along with his classmates formed several committees and prepared a knockout fixture of 17 teams for the Kabaddi tournament. He faced many challenges in organizing the match, but finally, he was successful.

4

Answer the following questions based on the above case and your prior knowledge :

- (i) How many matches will be played in this tournament ?
(ii) _____ saves cost and time and makes each match intensive because of fear of elimination.
(A) Knockout tournament (B) League tournament
(C) Round robin tournament (D) Combination tournament
(iii) Two team players got injured during the match, which committee will manage it ?
(A) Logistics committee (B) Technical committee
(C) Finance committee (D) Marketing committee
(iv) Which formula was used to allot byes to the above teams in the lower half ?

OR

Which formula was used to allot byes to the above teams in the upper half ?

32. During the Physical Education class, Vivek's physical education teacher provided information about sports for children with special needs. He explained, how they are catered for the Paralympics, Deaflympics and Special Olympics. Additionally, he advised them to motivate such children to participate in physical activities to improve their performance.

4

Answer the following questions based on the above case and your prior knowledge :

- (i) To participate in Special Olympic, minimum age should be _____ years old.
(A) 7 (B) 6
(C) 8 (D) 9



- (ii) पहला बधिर ओलंपिक वर्ष _____ में हुआ ।
(iii) पैरालंपिक के संस्थापक कौन थे ?
(iv) विशेष बच्चों के लिए शारीरिक गतिविधियों को सुलभ बनाने के लिए कोई दो रणनीतियाँ लिखिए ।
33. दिया पहली बार खेल प्रशिक्षण केन्द्र में गई थी । उसके कोच ने उसे बताया कि खेलों में भाग लेने से न केवल शारीरिक विकास होता है बल्कि सामाजिक व मनोवैज्ञानिक लाभ भी होता है । उन्होंने मांसपेशियों, हृदय और श्वसन प्रणाली पर होने वाले अनेक शारीरिक लाभों पर भी प्रकाश डाला । उन्होंने उसकी स्वास्थ्य व कौशल सम्बन्धी पुष्टि में सुधार के लिए उसे प्रतिदिन लगातार अभ्यास करने की सलाह दी । 4
उपर्युक्त प्रकरण व अपने पूर्व ज्ञान के आधार पर निम्नलिखित प्रश्नों के उत्तर दीजिए :
- (i) व्यायाम का मांसपेशीय प्रणाली पर कौन सा दीर्घकालिक प्रभाव नहीं है ?
(A) मांसपेशियों की अधिवृद्धि (B) ग्लाइकोजन भंडारण में वृद्धि
(C) अस्थिबंध व टेंडन मजबूत होते हैं । (D) लैक्टेट का संचय
- (ii) कार्डिएक-आऊटपुट (हृदय-निगमन) क्या है ?
- (iii) 'टाइडल वॉल्यूम' से सम्बन्धित सही कथन का चुनाव कीजिए :
(A) एक श्वास में अंदर ली गई और छोड़ी गई वायु की मात्रा
(B) एक श्वास में अंदर ली गई वायु की मात्रा
(C) एक आघात में हृदय द्वारा छोड़ी गई रक्त की मात्रा
(D) एक श्वास में बाहर छोड़ी गई वायु की मात्रा
- (iv) लैक्टिक-अम्ल सहनशीलता _____ से सम्बन्धित है ।
(A) शक्ति (B) गति
(C) लचीलापन (D) सहनक्षमता

खण्ड – ड

(किन्हीं 3 प्रश्नों के उत्तर दीजिए ।)

34. उच्च रक्तचाप को नियंत्रित करने के लिए मंडूकासन व मकरासन की विधि और लाभों का वर्णन करें ।
 $2\frac{1}{2} + 2\frac{1}{2} = 5$
35. संतुलन से आपका क्या तात्पर्य है ? खेलों से उपयुक्त उदाहरण देते हुए स्पष्ट कीजिए कि विभिन्न कारकों के प्रभाव से संतुलन कैसे बढ़ता है ।
 $1 + 4 = 5$
36. परिधि प्रशिक्षण से आप क्या समझते हैं ? एक कोच अपने नए प्रशिक्षुओं की पुष्टि विकसित करने के लिए छह स्टेशनों के साथ परिधि-प्रशिक्षण-सत्र की योजना कैसे बनाएगा ? व्याख्या कीजिए ।
 $2 + 3 = 5$
37. 'साई-खेलो इंडिया' द्वारा 5 से 8 वर्ष के आयु वर्ग के लिए अनुशंसित 'फ्लेमिंगो बैलेंस टेस्ट' तथा 'प्लेट-टैपिंग-टेस्ट' की प्रक्रिया व स्कोरिंग के बारे में विस्तार से लिखिए ।
 $2\frac{1}{2} + 2\frac{1}{2} = 5$



- (ii) The first Deaflympics was held in the year _____.
- (iii) Who was the founder of the Paralympics ?
- (iv) Write any two strategies to make physical activities accessible for special children.

33. Diya went to sports training centre for the first time. Her coach informed her that participation in sports not only promotes physical growth but also has social and psychological benefits. He highlighted numerous physical benefits for muscles, heart and respiratory systems. He advised her to continue daily practice to improve her health related and skill related fitness. 4

Answer the following questions based on the above case and your prior knowledge :

- (i) Which is not a long-term effect of exercises on the muscular system ?
 - (A) Hypertrophy of muscle
 - (B) Increase in glycogen stored
 - (C) Ligament and tendon strengthen
 - (D) Accumulation of lactate
- (ii) What is cardiac output ?
- (iii) Choose the correct statement related to tidal volume :
 - (A) Amount of air inhaled and exhaled in one breath.
 - (B) Amount of air inhaled in one breath
 - (C) Amount of blood pumped out by heart in one stroke.
 - (D) Amount of air exhaled in one breath
- (iv) Lactic acid tolerance relates to _____.
 - (A) Strength
 - (B) Speed
 - (C) Flexibility
 - (D) Endurance

SECTION – E

(Attempt any 3 questions.)

- 34. Describe the procedure and benefits of Mandukasana and Makrasana to control hypertension. $2\frac{1}{2} + 2\frac{1}{2} = 5$
- 35. What do you mean by Equilibrium ? Explain how Equilibrium increases with the influence of various factors by giving suitable examples from sports. $1 + 4 = 5$
- 36. What do you understand by circuit training ? How a coach will plan circuit training sessions with 6 stations to develop fitness of his new trainees ? Explain. $2 + 3 = 5$
- 37. Write in detail the procedure and scoring of 'Flamingo Balance Test' and 'Plate Taping Test' recommended for the age group 5 – 8 years by SAI Khelo India. $2\frac{1}{2} + 2\frac{1}{2} = 5$



Marking Scheme
Strictly Confidential
(For Internal and Restricted use only)
Senior Secondary School Certificate Examination, 2025
SUBJECT NAME PHYSICAL EDUCATION (Q.P. CODE 75)

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	“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.”
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. 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-X, 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.
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. This is most common mistake which evaluators are committing.
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 “ Extra Question ”.
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 _____(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).This is in view of the reduced syllabus and number of questions in question paper.
13	Ensure that you do not make the following common types of errors committed by the Examiner in the past:- <ul style="list-style-type: none"> ● Leaving answer or part thereof unassessed in an answer book. ● Giving more marks for an answer than assigned to it. ● Wrong totaling of marks awarded on an answer. ● Wrong transfer of marks from the inside pages of the answer book to the title page. ● Wrong question wise totaling on the title page. ● Wrong totaling of marks of the two columns on the title page. ● Wrong grand total. ● Marks in words and figures not tallying/not same. ● Wrong transfer of marks from the answer book to online award list. ● 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.) ● Half or a part of answer marked correct and the rest as wrong, but no marks awarded.
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 unassessed 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 “ Guidelines for Spot Evaluation ” 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 instruction

- a. The marking scheme carries only suggested value point for the answers.
- b. These are only guidelines and do not constitute the complete answer.
- c. The student 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 evaluator /Additional head examiners/Head examiners are once again reminded that they must ensure that evaluation is carried out as per value point for each answer as given in the marking scheme.
- e. All Head examiners/Additional head examiners/Evaluators are instructed that while evaluating the answer book if the answer found to be totally incorrect, (X) should be marked on the incorrect answer and awarded '0' marks

**MARKING SCHEME
PHYSICAL EDUCATION**

Max. Marks: 70

Q. No.	Expected Answer	Distributi on of Marks
1.	(D) Maintenance of the field	1
2.	(D) To promote health and recreation at the institution.	1
3.	(B) Scoliosis	1
4.	(C) Endurance activities	1
5.	(A) Obesity	1
6.	(B) Dhanurasana (For Visually Impaired Candidates only) (B) Forward bending in the sitting position	1
7.	(A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).	1
8.	(C) red, blue, yellow and green	1
9.	(B) Second class lever	1
10.	(B) ascorbic acid	1
11.	(B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)	1
12.	(C) Sit and reach test	1
13.	(B) a - (iii), b - (i), c - (iv), d - (ii)	1
14.	(A) Law of Inertia	1
15.	(B) a - (iii), b - (i), c - (ii), d - (iv)	1
16.	(B) Self-esteem	1
17.	(A) Fartlek training	1
18.	(C) Iso-metric exercise	1

	SECTION B (any 5 Answers)	
19.	<p>Q. Suggest any two corrective measures for each, bow-leg and round shoulder.</p> <p>Ans. Corrective measures for bow-leg – Walk on the inner edge of the feet Perform/Practice Garudasana Perform lunges (leg strengthening exercises) Wearing of braces and modified shoes</p> <p>Corrective measures for round shoulder : T-stretch, wall stretch, Handclasp stretch and planks, pull-ups, reverse shoulder stretch, etc. Developing the habit of keeping the spine straight is also helpful in correcting rounded shoulders. Perform asanas like Chakrasana, Dhanurasana, Ushtrasana, Bhujangasana Shoulder rotation clockwise and anticlockwise (Any two corrective measure for each)</p>	1+1 = 2
20.	<p>Q. Enlist four benefits of participation in physical activities for children with special needs.</p> <p>Ans. 1. Physical benefits –</p> <ul style="list-style-type: none"> • Improves motor skills • Improves flexibility and mobility • Builds strength, endurance, and speed • Supports cardiovascular health <p>2. Psychological benefits-</p> <ul style="list-style-type: none"> • Builds confidence and boosts self-esteem. • Reduces stress and anxiety • Enhances focus and attention • Develop a sense of achievement <p>3. Social benefits-</p> <ul style="list-style-type: none"> • Enhances Team work • Improves communication skills • Develops Leadership • Promotes inclusion 	0.5× 4 = 2

	<p>4. Emotional benefits</p> <ul style="list-style-type: none"> • Elevates mood • Encourages positive attitude • Develops resilience • Reduces fear <p style="text-align: center;">(any four points)</p>	
21.	<p>Q. Enumerate any two myths related to food items with their respective facts.</p> <p>Ans. Myth: The fewer the carbohydrates, healthier you are- Fact: Choosing the healthiest carbohydrates especially whole grains is important for health and well-being and is required in larger quantity.</p> <p>Myth: Oils/Margarine have fewer calories than Ghee/butter- Fact: Ghee/Butter and Oils/ Margarine have about the same amount of calories. Some margarines are actually healthier because they contain trans-fats, which have even more adverse effects on cholesterol and heart health.</p> <p>Myth: Apples and brinjals are rich in iron because they turn brown when cut- Fact: They are an excellent source of fibre but not of iron. This change in colour is an enzymatic reaction and has nothing to do with iron.</p> <p>Myth: Drinking water in between meals affects digestion- Fact: The truth is that drinking water simply fills up the stomach and as a result one tends to eat less which is especially good when someone is trying to lose weight.</p> <p>Myth: Vegetarian diet does not build muscle Fact: Vegetarians derive Protein required for muscle growth from grain, pulses (dals) & Soya bean, milk and milk product. (Any two or any other myths with their respective facts.)</p>	1+1 = 2

22.	<p>Q. Mention the the fitness index score formula and its norms for the Harvard step test.</p> <p>Ans. The fitness index score formula =</p> $\frac{\text{Duration of the Exercise in Seconds} \times 100}{5.5 \times \text{Pulse count of 1-1.5 min after Exercise}}$ <p>Norms for Harvard Step Test</p> <table border="1" data-bbox="383 389 1034 522"> <tr> <td>Upto 49</td> <td>Poor</td> </tr> <tr> <td>50 – 80</td> <td>Average</td> </tr> <tr> <td>81 or above</td> <td>Good</td> </tr> </table>	Upto 49	Poor	50 – 80	Average	81 or above	Good	1+1 = 2
Upto 49	Poor							
50 – 80	Average							
81 or above	Good							
23.	<p>Q. Mention any two strategies for enhancing adherence to exercise.</p> <p>Ans. strategies for enhancing adherence to exercise are:</p> <ol style="list-style-type: none"> 1. Set realistic goals 2. Create a routine 3. Choose enjoyable activities 4. Track progress 5. Find a workout buddy/partner 6. Incorporate variety 7. Work load according to physical capacity 8. Focus on benefits 9. Mindful expectations 10. Advance communication about activity, space ,resource person should be communicated clearly 11. Approachable space 12. Appropriate equipment 13. Age appropriate graded activities (Any two) 	1+1 = 2						
24.	<p>Q. When wrestlers fall on the mat, why they spread their arms, knees and legs? Justify your answer.</p> <p>Ans. - As per the guiding principles of equilibrium and centre of gravity, the stability of an athlete depends on his/her COG. It is exactly in the middle of the body around which it can rotate freely in any direction and where the body weight is centred. Wrestlers always spread their feet, arms, knees and legs on the mat and make COG come down.</p> <ul style="list-style-type: none"> -May reduce the chances of injuries -Maintain balance and stability, - Broader the base, greater the stability. - Lower the centre of gravity, higher the stability. 	2						

SECTION C (Any 5 answers)		
25.	<p>Q. “The organisation of its community sports reflects the progress of any country”. In the context of this statement, outline ‘Run for a specific cause’ and ‘Run for unity’.</p> <p>Run for a Specific Cause</p> <p>Ans. This event is generally conducted to spread awareness about social issues like cleanliness, promoting a green environment, etc. The purpose of such events is to spread awareness among the masses for a specific cause or to generate charity. For example, the specific cause may be cancer, AIDS, gender inequality, etc.</p> <p>Run for Unity</p> <p>In such a type of run, the purpose is to foster peace, promote the feeling of integrity and brotherhood in the community, state, nation or among different religions. Such events help to develop bonding and a sense of togetherness among people cutting across social and economic barriers.</p>	1·5+1·5 = 3
26.	<p>Q. Describe the physical and psychological benefits of women’s participation in sports.</p> <p>Ans</p> <p>Physical benefits of women’s participation in sports-</p> <ol style="list-style-type: none"> 1. Reduce the chances of lifestyle diseases i.e. Diabetes, High blood pressure, Obesity etc. 2.Tones muscles 3.Improves cardiovascular system 4.Improves bone density 5.Improves reproductive health 6.Better sleep pattern 7.Improves posture and flexibility <p>Psychological benefits of women’s participation in sports</p> <ol style="list-style-type: none"> 1.Reduces stress and anxiety 2.Improves mood and emotional well being 3.Improves self esteem 4.Better cognitive function 5.Improves sleep quality 6.Improves focus and concentration 7.Promotes goal setting skills 8.Develops leadership qualities <p style="text-align: right;">(any 3 points explained)</p>	1× 3 = 3

27.	<p>Q. Define flexibility. Explain the methods to improve flexibility for a gymnast.</p> <p>Ans. Flexibility –Flexibility is known as the range of motion around a joint or It is the ability to execute a movement with greater amplitude or range Methods to improve flexibility :</p> <ol style="list-style-type: none"> 1.Slow Stretching 2.Slow Stretch and Hold 3.Static Stretching 4.Dynamic Stretching 5.Ballistic Method 6.Proprioceptive Neuromuscular Facilitation (PNF) Technique <p style="text-align: center;">(Explanation of any two methods)</p>	1+2 = 3
28.	<p>Q. Mention any three importance of diet during competition.</p> <p>Ans.</p> <ol style="list-style-type: none"> 1. Dealing with nutritional needs during training is crucial for optimal performance. The main aim during exercise and training should be to maintain water balance, control body temperature, sustain normal blood sugar levels and delay fatigue. Water that is lost through sweating during exercise needs to be replaced, in order to maintain fluid balance and normal temperature. Even slight dehydration brings in mental and physical fatigue and weakens the performance. 2. During small breaks in the events, such as tennis, boxing, etc., the consumption of adequate carbohydrates and fluids may be taken care of. In shorter breaks, carbohydrate-rich foods like bananas, juices, carbohydrate-based drinks (less than 2 percent concentration) or simply water may be taken. 3. If exercising for more than 60 minutes, carbohydrate-electrolyte beverages like diluted fruit juices containing 5 percent to 8 percent carbohydrates can be ingested. 4. As the duration of high intensity events continues, muscle glycogen levels diminish. Therefore, for endurance athletes, in events lasting longer than two hours, carbohydrate-rich solids or liquid meals are recommended during exercise. 	1× 3 = 3

	<p>5. Carbonated beverages, fizzy drinks and drinks that contain caffeine are not recommended.</p> <p>(Any three points)</p>																			
29.	<p>Q. Describe the following : (a) Residual volume (b) Stroke volume</p> <p>Ans. Residual volume: Residual volume is the volume of air that remains in the lungs after forceful expiration. Regular exercise increases residual volume that helps to exchange the gases in normal limits.</p> <p>Stroke Volume: The volume of blood pumped during one beat (contraction) is called stroke volume. During exercise, stroke volume increases as more oxygen is required. This is accomplished by delivering blood to muscles. After an endurance training programme, the capacity of the heart to pump blood in one contraction is increased by 20 to 50 percent.</p> <p>(Or any other relevant answer)</p>	1.5+1.5 = 3																		
30.	<p>Q. Compare and contrast hostile and instrumental aggression.</p> <table border="1" data-bbox="389 1060 1155 1570"> <tr> <td></td> <td>Hostile</td> <td>Instrumental</td> </tr> <tr> <td>Intent</td> <td>Harm or Suffering</td> <td>Harm or Suffering</td> </tr> <tr> <td>Primary Goal</td> <td>Harm or injure</td> <td>Win or advantage</td> </tr> <tr> <td>Process</td> <td>Non-Legitimate</td> <td>Non-Legitimate</td> </tr> <tr> <td>Emotion</td> <td>Anger</td> <td>No Anger</td> </tr> <tr> <td>Explanation</td> <td>Self-justification instead of apology</td> <td>Offer apologies</td> </tr> </table> <p>(any 3 points)</p>		Hostile	Instrumental	Intent	Harm or Suffering	Harm or Suffering	Primary Goal	Harm or injure	Win or advantage	Process	Non-Legitimate	Non-Legitimate	Emotion	Anger	No Anger	Explanation	Self-justification instead of apology	Offer apologies	3
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Explanation	Self-justification instead of apology	Offer apologies																		

SECTION D (Internal Choices Available)		
31.	i. (A) 06 ii. 16 iii. 10 and 11 <p style="text-align: center;">OR</p> <u>NB+1</u> 2 iv. (C) Seeding <p style="text-align: center;">(For <i>Visually Impaired</i> Candidates only)</p> i. 16 ii. (A) Knock out tournament iii. (A) Logistics committee iv. <u>NB+1</u> 2 <p style="text-align: center;">OR</p> <u>NB-1</u> 2	1 × 4 = 4
32.	i. (C) 8 ii. 1924 iii. Dr. Ludwig Guttmann iv. Two strategies are : 1. Proper instructions 2. Proper space 3. Adapted equipment 4. Modified rules 5. Graded activities 6. Social strategies 7. Involve people with disability in decision making 8. Regular medical check up <p style="text-align: center;">(any 2 points or any other relevant points)</p>	1 × 4 = 4

33.	<p>i. (D) – Accumulation of lactate</p> <p>ii. Cardiac output is the amount of blood pumped out by the heart in 1 minute.</p> <p style="text-align: center;">or</p> <p>Stroke volume X heart rate=cardiac output</p> <p>iii. (A) – Amount of air inhaled and exhaled in one breath.</p> <p>iv. (D) Endurance</p>	$1 \times 4 = 4$
SECTION - E (Answer any 3)		
34.	<p>Q. Describe the procedure and benefits of Mandukasana and Makarasana to control hypertension.</p> <p>Ans.</p> <p>Mandukasana :</p> <p>Mandukasana comes from the Sanskrit word 'Manduk' which means frog. This yoga asana is aptly named frog pose as your body resembles a frog when you practice it. This yoga asana is fairly straightforward and can be practiced by almost all age groups.</p> <p>Procedure :</p> <ul style="list-style-type: none"> • Sit in Vajrasana and make fists with both hands, the thumbs inside. • Place your fists on your belly next to the belly button. • Bend forward with exhalation. • Keep looking straight. • Hold your breath in the yoga posture for a few seconds and come up with inhalation. • Repeat this asana 3-4 times. <p>Benefits :</p> <ul style="list-style-type: none"> • This asana is beneficial to all organs of the body. • Mandukasana gives you relief from diabetes, digestive disorders and constipation. • This asana improves the flexibility and mobility of the knee and ankle joints. • It helps tone muscles of the shoulder and abdomen. • Regular practice of this asana increases your lung capacity. 	$2 \cdot 5 + 2 \cdot 5 = 5$

- This yoga asana is beneficial for people suffering from problems of the pancreas and the heart.
- This asana helps reduce fat from thighs, belly and hips.

Makarasana :

Makar means crocodile. While doing this asana the body resembles the shape of a crocodile, hence it is known as Makarasana. It is also considered a relaxing asana like Shavasana.

Procedure :

1. Lie down on the floor on your stomach with your hands folded under the head.
2. Place the right palm over the left palm on the ground and place the head over the right palm in a relaxed way and close your eyes.
3. Stretch the leg as far as possible. The toes should point outwards.
4. Relax the whole body. Breathe normally and slowly feel the whole body touching the ground and the deep relaxation in all your muscles.
5. Relax in this posture for few minutes.
6. While returning from the posture, slowly bring the feet together unfold the arms and come to the prone position.

Benefits :

1. Deep relaxation to the shoulder and the spine.
2. Reduces waist pain.
3. Helps in slipped disc.
4. Beneficial for asthma
5. Relief for arthritis patients.
6. Abdominal muscles get an automatic massage.

(any 2 benefits for each)

35.	<p>Q. What do you mean by Equilibrium? Explain how Equilibrium increases with the influence of various factors by giving suitable examples from sports.</p> <p>Ans. Equilibrium- State of balance or a stable situation where opposite forces cancel each other and where no changes occur.</p> <p style="text-align: center;">Or</p> <p>Condition in which the sum of all forces acting on a body is zero, causing it to remain at rest or move with constant velocity.</p> <p>-Lower centre of gravity means more stability: Athletes lower their centre of gravity to improve stability during activities. For example, runners bend their knees to stop more quickly and effectively. Similarly, a wrestler adopts a half –sitting posture for better balance, and shot put thrower bends their knees for better stability to avoid foul.</p> <p>- Stability increases when centre of gravity is centred: Balance is lost if centre of gravity moves outside the support base. Keeping the weight centred over the support base enhances stability. For instance, balance is easily lost in activities like walking on a balance beam with narrow support base. If balance shifts, the gymnast might raise an arm or leg to bring the centre of gravity back to the centre.</p> <p>- Wider base of support enhance stability: Spreading the support base, like standing with feet apart adds stability. Using stance requiring both hands and feet, creates the most comprehensive base and, hence more stability.</p> <p>Body weight is directly proportional to stability: A heavier person or gravity or object is more stable and more challenging to move. This principle is applied in sports like Boxing, Judo, Wrestling, where competitors are classified by weight.</p> <p>More the friction on the surface more the stability: If the surface of a sport or activity has more friction, it leads to greater stability. For example, if the friction on a wrestling mat is less, wrestler will tend to slip.</p> <p style="text-align: center;">(Any four factors with any suitable example)</p>	1+4 = 5
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36.	<p>Q. What do you understand by circuit training? How a coach will plan circuit training sessions with 6 stations to develop fitness of his new trainees? Explain.</p> <p>Ans. Circuit training method was introduced by R.E morgan and G.T. Admson of Leeds university in 1951. It is the training method in which certain exercises of various kinds are performed with or without apparatus with given dosage. A coach planning a circuit training session for new trainees must consider their fitness level goals and variety of exercises. Each station should focus on different component of fitness such as strength, endurance, agility and flexibility. Coach can plan following stations to develop fitness of his new trainees –</p> <ol style="list-style-type: none"> 1.Push ups 2.Jump squat 3.Rope skipping 4.Pull ups 5.Shuttle run 6.Arm curling 7.Shoulder press 8.Burpees 9.Step ups 10.Lunges 11.Medicine ball throw 12.Sit ups 13.Spot running 14.Bench press 15.Exercises with dumbbells <p style="text-align: center;">(Any 6 or any other relevant stations)</p>	2·5+2·5 = 5
37.	<p>Q. Write in detail the procedure and scoring of “Flamingo Balance Test’ and ‘Plate Tapping Test’ recommended for the age group 5 – 8 years by SAI Khelo India.</p> <p>Ans. Procedure Flamingo Balance Test: - Stand on the beam. Keep the balance by holding the instructor's hand (if required to start).</p>	1+2+2 = 5

- Start the watch as the instructor let goes of the participant/subject.
- Pause the stopwatch each time the subject loses balance (either by falling off the beam or letting go of the foot being held).Resume over, timing again until they lose balance.
- Count the number of falls in 60 seconds of balancing.
- If there are more than 15 falls in the first 30 seconds, the test is terminated.

Scoring:

The total number of falls or loss of balance in 60 seconds of balancing is recorded.

If there are more than 15 falls in the first 30 seconds, the test is terminated.

Procedure for Plate Tapping Test:

If possible, the table height should be adjusted so that the subject may stand comfortably in front of the discs. The two yellow discs are placed with their centers 60 cm apart on the table.

The rectangle is placed equidistant between both discs. The non-preferred hand is placed on the rectangle. The subject moves the preferred hand back and forth between the discs over the hand in the middle as quickly as possible.

This action is repeated for 25 full cycles (50 taps).

Scoring: The time taken to complete 25 cycles is recorded.