रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD

CEN 07/2024 - मिनिस्ट्रियल और आइसोलेटेड कोटियाँ / CEN 07/2024 - Ministerial & Isolated Categories

सत्यमेव जयते

Test Date	12/09/2025
Test Time	4:30 PM - 6:00 PM
Subject	Physical Training Instructor

*** Note**
Correct Answer will carry 1 mark per Question.
Incorrect Answer will carry 1/3 Negative mark per Question.

1. Options shown in green color with a tick icon are correct.
2. Chosen option on the right of the question indicates the option selected by the candidate.

Section : **Professional Ability**

Q.1 **The process of inhaling oxygen and exhaling carbon dioxide is called:**

Ans
A. Excretion
B. Respiration
C. Digestion
D. Circulation

Q.2 **Stroke volume refers to:**

Ans
A. blood pumped per minute by the heart
B. blood pressure in arteries
C. heart rate multiplied by resistance
D. blood pumped per beat by the heart

Q.3 **Which of the following best describes the concept of wellness in relation to a positive lifestyle?**

Ans
A. A holistic integration of physical, mental, and social well-being
B. A strict adherence to dietary rules
C. The absence of disease
D. The ability to perform daily tasks without fatigue

Q.4 **Taping and bracing are primarily used in injury management for:**

Ans
A. increasing strength immediately
B. reducing flexibility permanently
C. providing support and preventing re-injury
D. speeding up muscle growth

Q.5 **In sports psychology, a steep initial learning curve typically indicates:**

Ans
A. decline in performance after initial progress
B. no change in performance over time
C. slow improvement in skill acquisition
D. rapid improvement in early stages of learning

Q.6 **Which of the following is NOT a component of total fitness?**

Ans

A. Political awareness

B. Mental fitness

C. Social well-being

D. Physical fitness

Q.7 **Where is the headquarters of the International Olympic Committee (IOC) located?**

Ans

A. New York, USA

B. Lausanne, Switzerland

C. Tokyo, Japan

D. London, UK

Q.8 **The primary centre for thermoregulation in the human body is located in the:**

Ans

A. hypothalamus

B. cerebrum

C. cerebellum

D. medulla oblongata

Q.9 **According to Atkinson's Achievement Motivation Theory, achievement behaviour is a result of:**

Ans

A. biological drives only

B. the interaction between motive for success, probability of success, and incentive value of success

C. social class differences

D. personality traits alone

Q.10 **What is a key benefit of adequate sleep in maintaining good hygiene and energy balance for physical activity?**

Ans

A. Reduces immune system efficiency

B. Enhances muscle recovery and mental alertness

C. Promotes irregular eating habits

D. Increases risk of chronic fatigue

Q.11 **Which corrective exercise is best for kyphosis?**

Ans

A. Side lunges

B. Toe raises

C. Back extension exercises

D. Forward bends

Q.12 **Oxygen debt primarily occurs due to:**

Ans

A. lack of haemoglobin

B. high blood pressure

C. accumulation of lactic acid

D. reduced lung capacity

Q.13 **Which of the following is a UNICEF programme in India?**

Ans

A. National Tuberculosis Elimination Programme

B. Pulse Polio Immunisation

C. Universal Health Coverage

D. Ayushman Bharat

Q.14 **Which of the following options best represents the correct formula for the Energy Balance Equation in human physiology?**

Ans

A. Energy Intake + Energy Expenditure = Energy Balance

B. Energy Intake ÷ Energy Expenditure = Energy Balance

C. Energy Intake × Energy Expenditure = Energy Balance

D. Energy Intake – Energy Expenditure = Energy Balance

Q.15 **The main purpose of using audio-visual aids in physical education is:**

Ans

A. to reduce teacher-student interaction

B. to provide variety and increase effectiveness of learning

C. to make teaching easier for the teacher

D. to replace physical activity

Q.16 **Vital capacity is the:**

Ans

A. air exchanged during normal breathing

B. air remaining after normal exhalation

C. maximum volume of air in the lungs

D. maximum air exhaled after maximum inhalation

Q.17 **The axial skeleton consists of:**

Ans

A. arm and leg bones

B. limbs only

C. skull, vertebral column and rib cage

D. shoulder and pelvic girdle

Q.18 **Which type of muscle is involuntary and found in the walls of internal organs?**

Ans

A. Cardiac

B. Striated

C. Smooth

D. Skeletal

Q.19 **Which of the following best explains the role of dietary fibre in a balanced diet for maintaining overall wellness?**

Ans

A. Reduces cholesterol levels and aids in digestive health

B. Provides essential amino acids for muscle growth

C. Increases glycogen storage for endurance performance

D. Enhances calcium absorption for bone strength

Q.20 **Which psychological technique is the most effective for reducing pre-competition anxiety in athletes?**

Ans

A. Overtraining

B. Increasing caffeine intake

C. Avoiding all forms of practice

D. Progressive muscle relaxation

Q.21 **Which activity burns the most calories per hour for an average adult?**

Ans

A. Jogging at 8 km/hr

B. Sitting quietly

C. Sleeping

D. Walking at 3 km/hr

Q.22 **In the context of physical education and sports, which of the following options best describes occupational hygiene?**

Ans

A. The planning of training schedules for athletes

B. The study of muscle growth during exercise

C. The practice of preventing health risks by controlling environmental and workplace factors

D. The measurement of athletic performance in competition

Q.23 **The principle of progression in physical education means:**

Ans

A. a gradual increase in the workload to improve performance

B. the exercises should be stopped when tired

C. a sudden increase in the training load for quick results

D. the training must be the same for everyone

Q.24 **Which of the following is a racket sport?**

Ans

A. Basketball

B. Tennis

C. Cricket

D. Football

Q.25 **Which type of camping focuses on educational objectives such as nature study and conservation?**

Ans

A. Recreational camping

B. Survival camping

C. Festival camping

D. Educational camping

Q.26 **What is the correct hierarchical organisation in the human body?**

Ans

A. Organ → Tissue → Cell → System

B. Tissue → Organ → System → Cell

C. System → Organ → Cell → Tissue

D. Cell → Tissue → Organ → System

Q.27 **Bathing after vigorous physical activity is recommended mainly to:**

Ans

A. increase protein metabolism

B. improve lung capacity

C. increase appetite

D. remove sweat, bacteria and prevent skin infections

Q.28 **Who founded the IOC?**

Ans

A. William Penny Brookes

B. Baron Pierre de Coubertin

C. Avery Brundage

D. Juan Antonio Samaranch

Q.29 **Physical activity differs from exercise in that:**

Ans

A. physical activity is only competitive, while exercise is recreational

B. physical activity requires equipment, while exercise does not

C. physical activity is any movement, while exercise is planned, structured and repetitive for fitness

D. exercise is unplanned, while physical activity is structured

Q.30 The primary muscle responsible for inspiration during normal breathing is/are:

Ans

A. diaphragm

B. pectoralis major

C. intercostal muscles

D. abdominal muscles

Q.31 Which of the following is a key social benefit of participating in team sports?

Ans

A. Increased personal isolation

B. Decreased teamwork

C. Reduced physical activity

D. Improved communication skills

Q.32 Which of the following is NOT a principle of corrective exercise?

Ans

A. Immediate high-intensity training

B. Proper supervision

C. Consistency and regularity

D. Targeting weak muscle groups

Q.33 Which rehabilitation method involves alternating between hot and cold-water immersion?

Ans

A. Contrast bath

B. Hot fomentation

C. Cryotherapy

D. Ice bath

Q.34 Which of the following is a psychological objective of physical education?

Ans

A. Development of strength

B. Enhancement of flexibility

C. Improvement of emotional stability

D. Development of endurance

Q.35 The Indian Council of Medical Research (ICMR) recommends that daily calorie intake for a sedentary adult male should be approximately:

Ans

A. 2400 kcal

B. 3000 kcal

C. 1800 kcal

D. 1200 kcal

Q.36 In sports psychology, emotion is best defined as:

Ans

A. a process unrelated to performance

B. a permanent personality trait

C. a short-lived mental state involving physiological arousal and expression

D. a physical reaction only

Q.37 Which of the following options best describes the relationship between calorie intake and expenditure for maintaining body weight?

Ans

A. Calorie intake is unrelated to expenditure.

B. Calorie intake should be higher than expenditure.

C. Calorie intake should be lower than expenditure.

D. Calorie intake should equal expenditure.

Q.38 **Which of the following options best describes mental hygiene in the context of physical education and health?**

Ans

A. The development and maintenance of mental health through healthy habits

B. The process of maintaining physical fitness through regular exercise

C. The intake of balanced nutrients to support cognitive performance

D. The practice of keeping the body free from harmful microorganisms

Q.39 **Which factor directly influences muscle strength development?**

Ans

A. Neural adaptation

B. Bone density

C. Blood glucose level

D. Skin elasticity

Q.40 **Which event is an example of a Physical Education seminar?**

Ans

A. Gymnastics competition

B. 100 m sprint race

C. Annual sports meet

D. Expert lecture on injury prevention

Q.41 **The principle of reversibility in physical fitness means:**

Ans

A. fitness develops without exercise

B. fitness is permanent once achieved

C. fitness levels decline when training stops

D. training cannot be reversed

Q.42 **Which of the following is NOT a primary benefit of camping for recreation?**

Ans

A. Improving indoor gaming skills

B. Encouraging physical activity

C. Enhancing environmental awareness

D. Promoting teamwork and cooperation

Q.43 **Which of the following sports is classified as an invasion game?**

Ans

A. Kabaddi

B. Gymnastics

C. Badminton

D. Swimming

Q.44 **Which of the following is an audio aid in physical education?**

Ans

A. Demonstrations

B. Charts

C. Tape recorder

D. Models

Q.45 **Athletes with poor sleep hygiene are most likely to experience:**

Ans

A. decreased reaction time, fatigue and higher risk of injury

B. better coordination

C. improved performance

D. higher motivation

Q.46 **Negative energy balance means:**

Ans

A. unrelated to expenditure

B. intake = expenditure Intake

C. intake < expenditure

D. intake > expenditure

Q.47 **Which type of anxiety is linked to moment-to-moment changes during performance?**

Ans

A. State anxiety

B. Trait anxiety

C. Cognitive anxiety

D. Somatic anxiety

Q.48 **Which of the following is an intrinsic incentive in sports?**

Ans

A. Praise from coach

B. Scholarship grant

C. Financial reward

D. Self-improvement and enjoyment

Q.49 **Which of the following best describes the primary aim of sports medicine?**

Ans

A. Maximising energy expenditure during sports

B. Increasing competition stress

C. Promoting performance while preventing and managing injuries

D. Enhancing aesthetic appearance

Q.50 **In basketball, the game starts with a:**

Ans

A. coin toss

B. free throw

C. jump ball at centre circle

D. side-line throw-in

Section : **General Ability**

Q.51 **If 'P' stands for '×', 'Q' stands for '÷', 'R' stands for '–' and 'S' stands for '+', then what will come in place of the question mark (?) in the following equation?**

18 P 2 R 4 Q 2 S 6 P 2 R 1 = ?

Ans

A. 43

B. 42

C. 48

D. 45

Q.52 **Given below are two statements. Select the correct answer from the options given for these statements.**

Statement I: Particles of matter are continuously moving, that is, they possess what we call kinetic energy.
Statement II: With increase in temperature, the kinetic energy of the particles also increases.

Ans

A. Statement I is false, but Statement II is true.

B. Both statements are false.

C. Statement I is true, but Statement II is false.

D. Both statements are true.

Q.53 Raju obtained 75 and 85 marks in mathematics and physics, respectively. Find the marks he must get in chemistry to have an average of 80 marks in all the three subjects.

Ans

A. 60

B. 80

C. 70

D. 90

Q.54 Which of the following Acts of the Indian Constitution empowered the President of India to constitute a GST Council by an order within sixty days from the date of commencement of the 101st Constitution Act, 2016?

Ans

A. Article 280

B. Article 279A(1)

C. Article 329-A

D. Article 239-A

Q.55 Which of the following rivers make the largest delta in India?

Ans

A. Yamuna and Chambal

B. Ganga and Brahmaputra

C. Godavari and Kaveri

D. Mahanadi and Krishna

Q.56 Which of the following is NOT true about the Universal Law of Gravitation?

Ans

A. It helps in discovering new stars and planets.

B. It is used to study the lifetime of planets.

C. It is used to study the motion of the Moon around the earth.

D. It is used to determine the mass of the Sun.

Q.57 If $\left(\frac{5}{3}\right)^{x-3} = \frac{3125}{243}$, find the value of $\left(\frac{5}{3}\right)^{\frac{x}{2}}$.

Ans

A. $\frac{5}{3}$

B. $\frac{125}{27}$

C. $\frac{625}{81}$

D. $\frac{25}{9}$

Q.58 A, B, C, D, P, Q and R are sitting around a circular table facing the centre of the table. Only two people sit between R and D when counted from the left of D. P sits third to the left of B. Q sits to the immediate right of B. Q sits second to the left of R. C is not an immediate neighbour of P. Who sits third to the right of A?

Ans

A. Q

B. R

C. B

D. D

Q.59 Which Union Territory was merged with Dadra and Nagar Haveli to form the new Union Territory on 26 January 2020?

Ans

A. Daman and Diu

B. Chandigarh

C. Puducherry

D. Andaman and Nicobar Islands

Q.60 **Which of the following features enables plants to regenerate damaged tissues more efficiently than animals?**

Ans

A. A rigid cell wall

B. The presence of meristematic tissues

C. A large central vacuole

D. The presence of chloroplasts

Q.61 **Which launch vehicle was used to launch the NISAR satellite from ISRO's Satish Dhawan Space Centre (SDSC) in July 2025?**

Ans

A. PSLV-C61

B. GSLV-F16

C. PSLV-C60

D. GSLV-F15

Q.62 **How did the Green Revolution impact farming time and productivity with regard to machinery usage?**

Ans

A. There was significant increase in the use of machinery, which led to high productivity and low farming time.

B. Machinery usage remained unchanged, hence there was no impact on farming time or productivity.

C. It only impacted traditional hand tools, which led to an increase in farming time and decreased productivity.

D. There was decreased reliance on agricultural machinery and thus low productivity.

Q.63 **In which of the following States are there two houses, known as Legislative Council and Legislative Assembly (bicameral legislatures)?**

Ans

A. Bihar

B. Rajasthan

C. Gujarat

D. Punjab

Q.64 **What is a common feature of the stigma in flowering plants?**

Ans

A. Rough and dry for protection

B. Sticky to catch pollen grains

C. Thick and stores egg cells

D. Thin and pointed for support

Q.65 **This question is based on the following words.**
COZ SYE ROB HEM
In each of the words, each vowel is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. In how many letter-clusters thus formed, will no vowel appear?

Ans

A. Two

B. One

C. Three

D. Four

Q.66 **Which of these phenomena causes sudden rainfall in northwestern India during winter?**

Ans

A. Western disturbances

B. El Nino

C. Cyclones from the Bay of Bengal

D. South-west monsoon

Q.67 What is the primary function of epithelial tissue in the animal body?

Ans

A. Transport of oxygen

B. Contraction and movement

C. Coordination and control

D. Covering and protection

Q.68 Refer to the following letter series and answer the question that follows.

(Left) G D U E Y Q E W P A E U S J F D A M B N U (Right)

If alternate letters are removed from the series, with G being the first letter to be removed, then which is the seventh letter from the left in the newly formed new series?

Ans

A. U

B. A

C. J

D. D

Q.69 Prime Minister Narendra Modi released the 20th instalment of the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme in August 2025 from which place?

Ans

A. Varanasi

B. Prayagraj

C. Bhagalpur

D. Darbhanga

Q.70 In a certain code language, 'GLAM' is coded as '4236' and 'MALE' is coded as '4396'. What is the code for 'E' in the given code language?

Ans

A. 3

B. 2

C. 9

D. 4

Q.71 Select the pair which follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.

XZA−YAB
CEF−DFG

Ans

A. JKK−KMN

B. JLM−JMM

C. JKK−JLM

D. JLM−KMN

Q.72 Refer to the number series given below and answer the question that follows. Counting to be done from left to right only. (All numbers are single-digit numbers only.)

(Left) 6 2 1 5 7 3 7 8 5 3 4 5 2 4 8 4 3 6 9 7 4 2 1 5 7 9 1 (Right)

How many such odd digits are there each of which is immediately preceded by an even digit and also immediately followed by an odd digit?

Ans

A. 4

B. 5

C. 3

D. 2

Q.73 Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(31, 58, 85)
(64, 91, 118)

Ans
A. (31, 58, 75)
B. (68, 95, 112)
C. (76, 103, 120)
D. (52, 79, 106)

Q.74 Initially, the population of a town was 80,000 and increases at the rate of R%. If the population becomes 1,06,480 after three years, then the value of R is:

Ans
A. 11.5
B. 9.5
C. 10
D. 11

Q.75 A man travels 200 km at 50 km/hr, and the next 300 km at 60 km/hr. What is his average speed (in km/hr) for the whole journey?
(Rounded off to two decimal places)

Ans
A. 55.56
B. 60.55
C. 45.55
D. 50.55

Q.76 In a computer game, a builder can build a wall in 10 hours while a destroyer can completely demolish such a wall in 20 hours. In the beginning, both builder and destroyer were set to work together on a basic level. But after 15 hours the destroyer was withdrawn. What was the total time (in hours) taken to build the wall?

Ans
A. 17.5
B. 16.5
C. 16
D. 17

Q.77 The first edition of the Khelo India Beach Games (KIBG), held under the Khelo India banner in May 2025, took place at which location?

Ans
A. Diu
B. Vishakhapatnam
C. Chennai
D. Panaji

Q.78 Seven boxes E, F, G, H, S, T and U are kept one over the other but not necessarily in the same order. Only H is kept above E. Only T is kept between E and S. Only F is kept below U.
How many boxes are kept between G and F?

Ans
A. One
B. Two
C. Four
D. Three

Q.79 **Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?**
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans
A. ORM
B. MPL
C. SVQ
D. QTO

Q.80 **FAEG is related to MHLN in a certain way based on the English alphabetical order. In the same way, IDHJ is related to PKOQ. To which of the given options is LGKM related, following the same logic?**

Ans
A. NSRT
B. NSTR
C. SNRT
D. SNTR

Q.81 **Which of the following statements are correct?**
(i) Melting point indicates the strength of forces of attraction between particles.
(ii) During melting, temperature of the solid remains constant until it has completely melted.
(iii) Boiling is a surface phenomenon.
(iv) Steam at 373 K has more energy than water at 373 K.

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

Q.82 **Which of the following statements best explains how translocation occurs in phloem?**

Ans
A. It occurs due to gravitational pull.
B. It is an active process requiring energy.
C. It is a passive process involving diffusion.
D. It happens due to capillary action.

Q.83 **What should come in place of the question mark (?) in the given series?**

81 97 ? 141 169 201

Ans
A. 123
B. 111
C. 117
D. 101

Q.84 **What will happen when the forces acting on an object are unbalanced?**

Ans
A. The object's direction will not change.
B. The object's velocity will remain constant.
C. The object will remain stationary.
D. The object will accelerate in the direction of the net force.

Q.85 **In the carbon cycle, which of the following processes releases carbon dioxide back into the atmosphere?**

Ans
A. Respiration
B. Assimilation
C. Photosynthesis
D. Carbon sequestration

Q.86 In a certain code language, 'come on time' is coded as 'lk pg jk' and 'on the way' is coded as 'tm jk po'. How is 'on' coded in the given language? (All codes are two-letter codes.)

Ans

A. jk

B. pg

C. tm

D. po

Q.87 What is the median of the following distribution?

Class	120-170	170-220	220-270	270-320	320-370
Frequency	33	13	10	31	11

Ans

A. 219

B. 229

C. 235

D. 237

Q.88 If the area of a rhombus is 10 cm^2 and one of its interior angles is 150°, what is the perimeter (in cm) of the rhombus?

Ans

A. $8\sqrt{5}$

B. $4\sqrt{2}$

C. 10

D. 20

Q.89 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

DEW30 JKC45 PQI60 VWO75 ?

Ans

A. BCU90

B. BCV90

C. ECU90

D. BDU90

Q.90 Find the value of

$$6\frac{4}{11} \div 3\frac{2}{11} \text{ of } 2 + 5\frac{1}{3} \text{ of } \frac{3}{8} \div 4 + 5 \times 2$$

Ans

A. 11.5

B. 14

C. 16.5

D. 18

Q.91 Which of the following statements best describe the outcome of the British building the Coast Canal on the Odisha coast?

Ans

A. It was highly successful and improved trade in the region.

B. It became economically viable due to competition with parallel railway lines.

C. It proved uneconomical and was eventually abandoned due to competition from railways.

D. It became a major mode of transport, reducing railway use in the area.

Q.92 In August 2025, the Government of India approved four semiconductor projects under the India Semiconductor Mission (ISM) to be set-up in which three states with an outlay of ₹4,600 crore?

Ans

A. Odisha, Punjab and Andhra Pradesh

B. Maharashtra, Odisha and Uttar Pradesh

C. Gujarat, Assam and Andhra Pradesh

D. Punjab, Bihar and Gujarat

Q.93 A bookstore offers a scheme: 'Buy books worth ₹1,200 or more and get ₹200 off'. If a customer buys books worth ₹1,500, what is the effective discount percentage?

Ans

A. $12\frac{2}{3}\%$

B. $13\frac{1}{3}\%$

C. $15\frac{2}{3}\%$

D. $16\frac{1}{3}\%$

Q.94 Identify the correct match between the compound and type of carbon-carbon bond.

Compound	C–C bond type
(i) Ethane	(a) Double bond
(ii) Ethene	(b) Single bond
(iii) Ethyne	(c) Triple bond

Ans

A. i–c, ii–b, iii–a

B. i–a, ii–b, iii–c

C. i–b, ii–c, iii–a

D. i–b, ii–a, iii–c

Q.95 In a school library, the ratio of fiction books to non-fiction books is 4 : 3. If there are 240 fiction books, how many non-fiction books are there?

Ans

A. 140 books

B. 200 books

C. 160 books

D. 180 books

Q.96 Who is the first Indian to win two medals in the same edition of the Olympics (post-Independence)?

Ans

A. Neeraj Chopra

B. Abhinav Bindra

C. Manu Bhaker

D. Sushil Kumar

Q.97 Absolute refractive index of a medium is the ratio of the speed of light in _____ to the speed of light in _____.

Ans

A. air; medium

B. medium; vacuum

C. vacuum; medium

D. medium; air

Q.98 **Which British policy allowed the annexation of Indian states whose rulers died without a natural heir?**

Ans

A. Subsidiary Alliance

B. Permanent Settlement

C. Doctrine of Lapse

D. Dual Government

Q.99 **Which incident led Mahatma Gandhi to launch the Non-Cooperation Movement in 1920?**

Ans

A. Jallianwala Bagh massacre

B. Arrest of Bal Gangadhar Tilak

C. Partition of Bengal

D. Simon Commission's arrival in India

Q.100 **Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.**

Statements:

Some quilts are televisions.
Some televisions are lights.

Conclusions:

(I) Some quilts are lights.
(II) All lights are televisions.

Ans

A. Only conclusion (II) follows.

B. Only conclusion (I) follows.

C. Neither conclusion (I) nor (II) follows.

D. Both conclusions (I) and (II) follow.