



Affiliated to CBSE

**HARYANA  
PUBLIC SCHOOL**

Affiliation No. 332646

संस्कार से सफलता तक

विद्या ददाति चिन्मयम्



**THE  
VENKATESHWAR  
SCHOOL**  
GURUGRAM

AN ISO 9001 : 2015 Certified

# 1ST ALL INDIA BRAIN LEAGUE EXAM 2026

**Class - IX**

**Time: 60 Minutes**

**M.M =50**

## General Instructions:

1. The duration of the examination is 60 minutes. Question paper contains 50 questions with maximum 50 marks
2. There will be negative marking in Phase - I, i.e.  $\frac{1}{4}$  mark will be deducted for each incorrect answer.
3. Use of gadgets is not allowed.
4. Students must abide by the instructions issued during the examination by the invigilator or the centre incharge.
5. Before attempting the question paper ensure that it contains all pages & no question is missing
6. Immediately fill the particulars on this page of the test booklet and OMR with BLACK ballpoint pen only. Use of pencil is strictly prohibited.
7. Fill and darken the bubbles completely. Do not put a tick or a cross.
8. Half-filled or over-filled bubbles will not be read by the software & liable to be rejected.

Correct Method



Wrong Method



Student's Signature

Invigilators's Signature

**SPECIAL CLASSES FOR-** IIT-JEE, NEET, CS ENTRANCE EXAM, CA FOUNDATION, NDA, CLAT & OLYMPIADS

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## ENGLISH

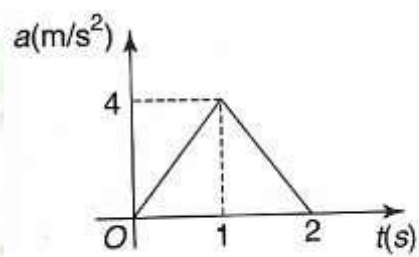
1. Neither the teacher nor the students \_\_\_\_ willing to change the schedule. (Subject Verb Concord)  
A. is                                      B. was  
C. are                                     D. has been
2. By the time the final bell rang, the students \_\_\_\_ their answers carefully. (Tenses)  
A. checked  
B. have checked  
C. had checked  
D. were checking
3. A person who speaks many languages fluently is called a/an: (One Word Substitution)  
A. Linguist                              B. Polyglot  
C. Bilingual                             D. Philologist
4. Which figure of speech is used in the line: "He lost his life for his love of life." (Figure of Speech)  
A. Oxymoron                            B. Pun  
C. Paradox                              D. Antithesis
5. He looks exhausted; he \_\_\_\_ have been working all night. (Modal Verbs)  
A. can                                      B. must  
C. ought to                               D. shall
6. I have read \_\_\_\_ book you lent me, but I still need time to reflect on it. (Determiners)  
A. each                                    B. every  
C. the whole                             D. whole
7. The politician spoke for an hour but did not beat about the bush.  
The phrase "beat about the bush" means: (Idioms and Phrases)  
A. avoid the main point  
B. speak angrily  
C. speak repeatedly  
D. speak indirectly with honesty
8. Identify the figure of speech used in the line: "The repeated, restless roar of the raging river echoed endlessly." (Figure of Speech)  
A. Assonance  
B. Onomatopoeia  
C. Alliteration

## D. Consonance

9. She \_\_\_\_ have finished the assignment by now, but there is no submission from her. (Modal Verbs)  
A. must                                    B. should  
C. might                                  D. could
10. A person who believes that nothing can improve or change is known as a: (One Word Substitution)  
A. Optimist                              B. Realist  
C. Pessimist                             D. Idealist

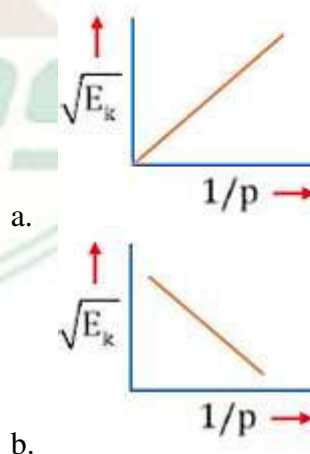
## PHYSICS

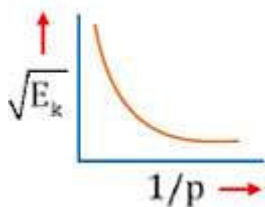
11. The acceleration-time graph of a particle moving in a straight line is as shown in the figure. The velocity of the particle at time  $t = 0$  is 2 m/s. The velocity after 2 seconds will be



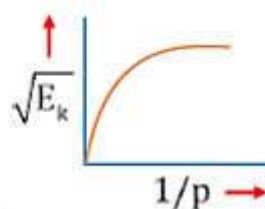
- A) 2 m/s                                      C) 6 m/s  
B) 4 m/s                                      D) 8 m/s

12. The graph between  $\sqrt{E_k}$  and  $\frac{1}{p}$  is ( $E_k$  = kinetic energy and  $p$  = momentum)





c.



d.

13. If the kinetic energy of a body increases by 2% then momentum :  
 A) increases by 2%  
 C) increases by 8%  
 B) increases by 1%  
 D) increases by 16%
14. Three different vibrating bodies produce three types of sounds X, Y and Z. Sounds X and Y cannot be heard by a man having normal range of hearing but sound Z can be heard easily. The sound X is used in for monitoring nuclear reactor. Y is sound similar to that which is produced during an earthquake before the main shock wave is generated. What type of sounds are (i) X (ii) Y, and (iii) Z?  
 A) X-infrasound  
 Y-ultrasound  
 Z- audible sound  
 B) X-audible sound  
 Y-infrasound  
 Z-ultrasound  
 C) X-ultrasound  
 Y-infrasound  
 Z-audible sound  
 D) X-infrasound  
 Y-audible sound  
 Z-audible sound
15. A football coach is comparing how different players can kick the same ball on a smooth ground.

Player A (mass 40 kg) kicks the ball gently, giving it a small acceleration.

Player B (mass 80 kg) kicks the same ball with a much larger force, giving it a higher acceleration in the same direction.

Player C (mass 80 kg) kicks a heavier training ball with the same force as Player B, but this ball gains less acceleration.

Based on this situation, which option best illustrates Newton's second law of motion?

- A. Acceleration of the ball depends only on the direction of kick, not on force or mass.  
 B. For the same ball, a larger force produces greater acceleration; for larger mass, the same force produces smaller acceleration.  
 C. The ball's acceleration is always the same, because gravity is constant.  
 D. The heavier ball always accelerates more because it has more mass.

### CHEMISTRY

16. What happens to the particles of matter when it is heated?  
 a) They change into a different substance  
 b) They move faster  
 c) They remain in the same position  
 d) They move slower
17. Which of the following methods would you use to separate cream from milk?  
 (a) Fractional distillation  
 (b) Distillation  
 (c) Centrifugation  
 (d) Filtration
18. Which of the following is an example of a covalent bond?  
 a) Sodium chloride (NaCl)  
 b) Magnesium oxide (MgO)  
 c) Calcium chloride (CaCl<sub>2</sub>)  
 d) Hydrogen Chloride (HCl)
19. What is the correct electronic configuration of Cu (Atomic no. 29)  
 a) [Ar]4s<sup>2</sup>3d<sup>9</sup>  
 b) [Ar]4s<sup>1</sup>3d<sup>10</sup>  
 c) [Kr]4s<sup>1</sup>3d<sup>10</sup>  
 d) [Ne]4s<sup>2</sup>3d<sup>9</sup>



20. Which of the following is not a sublimable substance?  
 a) Ammonium chloride  
 b) potassium aluminum sulfate  
 c) Solid carbon dioxide  
 d) Naphthalene balls

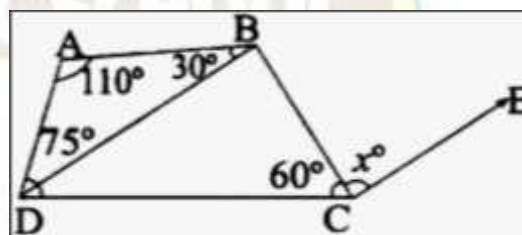
### BIOLOGY

21. Organelle other than nucleus, containing DNA is  
 (a) endoplasmic reticulum  
 (b) golgi apparatus  
 (c) mitochondria  
 (d) lysosome
22. Find out the correct sentence  
 (a) Enzymes packed in Lysosomes are made through RER (rough endoplasmic reticulum)  
 (b) Rough endoplasmic reticulum and smooth endoplasmic reticulum produce lipid and protein respectively  
 (c) Endoplasmic reticulum is related with the destruction of plasma membrane  
 (d) Nucleoid is present inside the nucleoplasm of eukaryotic nucleus
23. While doing work and running, you move your organs like hands, legs etc. Which among the following is correct?  
 (a) Smooth muscles contract and pull the ligament to move the bones  
 (b) Smooth muscles contract and pull the tendons to move the bones  
 (c) Skeletal muscles contract and pull the ligament to move the bones  
 (d) Skeletal muscles contract and pull the tendon to move the bones
24. Which muscles act involuntarily?  
 (i) Striated muscles (ii) Smooth muscles (iii) Cardiac muscles (iv) Skeletal muscles  
 (A) (i) and (ii)  
 (B) (ii) and (iii)  
 (C) (iii) and (iv)  
 (D) (i) and (iv)
25. Which of the following plant tissue provide mechanical support and a protective covering around seeds?  
 (A) Parenchyma

- (B) Collenchyma  
 (C) Aerenchyma  
 (D) Sclerenchyma

### MATHS

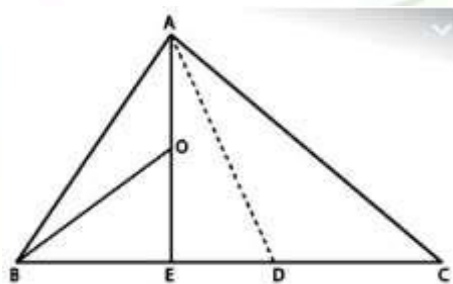
26. What is the value of  $xy$ , if  $x + y = 2013$  and  $1/x + 1/y = 2013$   
 (a) 0  
 (b) 1  
 (c) 4026  
 (d)  $1/2013$
27. In the given figure, if  $CE \parallel DB$ , what is the value of  $x$  ?



- (a)  $30^\circ$   
 (b)  $45^\circ$   
 (c)  $75^\circ$   
 (d)  $85^\circ$
28. In a circle of radius 20cm, three nails are fixed at equal distance on its boundary. A thread is tied across the nails to form a triangle. The length of the string on each side of the triangle is  
 (a)  $18\sqrt{3}$  (b)  $20\sqrt{3}$   
 (c)  $21\sqrt{3}$  (d)  $23\sqrt{3}$
29. Two circles with centers A and B, and radii 5 cm and 3 cm, touch each other internally. If the perpendicular bisector of the segment AB meets the bigger circle in P and Q; find the length of PQ.  
 (a)  $4\sqrt{6}$ .  
 (b)  $6\sqrt{2}$ .  
 (c)  $2\sqrt{2}$ .  
 (d) None of these
30. A positive integer is said to be a prime number if it is not divisible by any positive integer other than itself and 1. Let  $p$  be a prime number greater than 5. Then  $(p^2 - 1)$  is  
 (a) Never divisible by 6

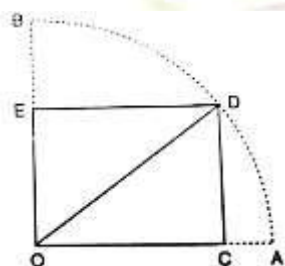
- (b) Always divisible by 6, and may or may not be divisible by 12  
 (c) Always divisible by 12, and may or may not be divisible by 24  
 (d) Always divisible by 24

31. D is the midpoint of side BC of  $\triangle ABC$  and E is the midpoint of BD. If O is the midpoint of AE, and  $\text{ar}(\triangle BOE) = 4\text{cm}^2$ , then find  $\text{ar}(\triangle ABC)$



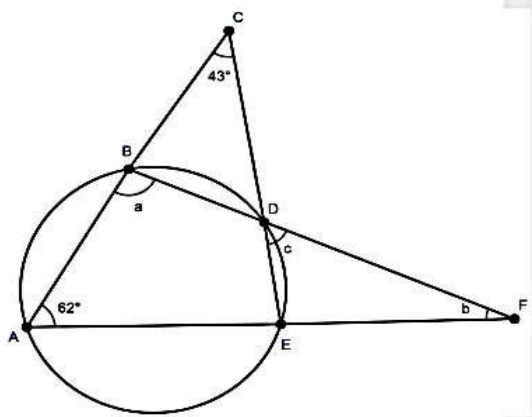
- (a)  $46\text{ cm}^2$  (b)  $32\text{ cm}^2$   
 (c)  $22\text{ cm}^2$  (d)  $40\text{ cm}^2$

32. In the given fig., OCDE is a rectangle inscribed in a quadrant of a circle of radius 10 cm. If  $OE = 2\sqrt{5}$  find the area of the rectangle.



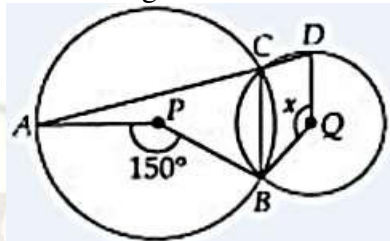
- (a) 40. (b) 60.  
 (c) 20. (d) None of these

33. In the given figure,  $\angle ACE = 43^\circ$  and  $\angle CAF = 62^\circ$ ; find the values of a, b and c.



- (a)  $70^\circ, 15^\circ, 43^\circ$   
 (b)  $80^\circ, 40^\circ, 80^\circ$   
 (c)  $100^\circ, 20^\circ, 55^\circ$   
 (d)  $105^\circ, 13^\circ, 62^\circ$

34. In the given figure, P and Q are the centres of two circles, intersecting at B and C and ACD is a straight line. Find the value of x



- (a)  $150^\circ$   
 (b)  $120^\circ$   
 (c)  $75^\circ$   
 (d) none of these

35. Two chords of a circle intersect inside the circle. The product of the segments of one chord is:

- a) Greater than the other  
 b) Less than the other  
 c) Equal to the product of segments of the other chord  
 d) Zero

36. If  $2^x = 3^y = 6^{-z}$ , then

- (a)  $\frac{1}{x} + \frac{1}{y} - \frac{1}{z} = 0$   
 (b)  $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 0$   
 (c)  $\frac{1}{x} - \frac{1}{y} + \frac{1}{z} = 0$   
 (d)  $\frac{1}{x} - \frac{1}{y} - \frac{1}{z} = 0$

37. A frog jumps double of its previous jumps. If the frog is at (-3, 0) initially and jumps 2 units in the first jump on negative side, then its position after third jump is:

- (a) (-15, 0)  
 (b) (-9, 0)  
 (c) (-17, 0)  
 (d) (-19, 0)

38. The image of the point (-2, 0) about a line making an angle of  $45^\circ$  in 1<sup>st</sup> equation is:

- (a) (0, 2) (b) (0, -2)  
 (c) (2, 0) (d) (-2, -1)

39. If  $p + a = 2$ , then  $a^3 + 6ap + p^3 - 8$  equals:  
(a) 0  
(b) 1  
(c) -1  
(d) none of these

40. If  $x = \frac{1}{2-\sqrt{3}}$ , then  $x^3 - 2x^2 - 7x + 5$  equals:  
(a) 3  
(b) -3  
(c) 4  
(d) -4

### SST

41. The slogan of the French Revolution was \_\_\_\_\_.  
a) Justice, Peace, Order  
b) Liberty, Equality, Fraternity  
c) Nation, Religion, King  
d) Power, Wealth, Status
42. What event marked the beginning of World War II?  
a) The signing of the Tripartite Pact  
b) The invasion of Poland in 1939  
c) The withdrawal from the League of Nations  
d) The annexation of Austria
43. The slogan "Peace, Land and Bread" was given by the \_\_\_\_\_.  
a) Mensheviks.  
b) Bolsheviks  
c) Liberals.  
d) Tsarists
44. The Brahmaputra takes a U-turn at which point to enter India?  
a. Mount Everest  
b. Namcha Barwa  
c. Gangotri Glacier  
d. Dehradun
45. India's vast latitudinal extent influences its \_\_\_\_\_.  
a) Vegetation.  
b) Climate

- c) Culture.  
d) Resources

46. The local time of India is calculated from \_\_\_\_\_ longitude.  
a)  $68^\circ\text{E}$ .  
b)  $82\frac{1}{2}^\circ\text{E}$   
c)  $90^\circ\text{E}$ .  
d)  $97^\circ\text{E}$
47. Chilika Lake, the largest saltwater lake in India, is located in which state?  
a) Tamil Nadu  
b) Andhra Pradesh  
c) Odisha  
d) West Bengal
48. Which of the following statements are correct?  
1. A large population can be turned into an asset through investment in education and health.  
2. Educated parents usually neglect the education of their children.  
3. Investment in human resources yields high returns in the future.  
Options:  
A) 1 and 2 only  
B) 1 and 3 only  
C) 2 and 3 only  
D) All of the above
49. Which of these principles is NOT part of the Constitution?  
a) Separation of powers.  
b) Fundamental Rights  
c) Dictatorship of majority.  
d) Rule of law
50. Which part of the Indian Constitution deals with Fundamental Rights?  
a) Part I.  
b) Part III  
c) Part V.  
d) Part VII

9th

Answer key

| ENGLISH | PHYSICS          | MATHS               | SST    |  |
|---------|------------------|---------------------|--------|--|
| 1. C.   | 11. B            | 21. (b)             | 41. .B |  |
| 2. C.   | 12. C            | 27. (d)             | 42. b) |  |
| 3. B.   | 13. B            | 28. (b)             |        |  |
| 4. C.   | 14.C             | 29. (a)             | 43 B.  |  |
| 5. B.   | 15.B             | 30. (d)             | 44. B. |  |
| 6. C.   | <b>Chemistry</b> | 31. (b)             | 45. C. |  |
| 7. A.   | 16. b)           | 32. (a)             | 46. B  |  |
| 8. C.   | 17. c)           | 33. (d)             | 47. B. |  |
| 9. B.   | 18. d)           | 34. (a) $150^\circ$ | 48. C. |  |
| 10. C.  | 19. b)           | 35. (c)             | 49. D. |  |
|         | 20. b)           | 36. (b)             | 50. B. |  |
|         | <b>Biology</b>   | 37. (c)             |        |  |
|         | 21. c            | 38. (b)             |        |  |
|         | 22. a            | 39. (a)             |        |  |
|         | 23. d            | 40. (a)             |        |  |
|         | 24. b            |                     |        |  |
|         | 25. d            |                     |        |  |