



EHF

LEARNING FOR LIFE

EDUHEAL FOUNDATION

CLASS 7

LEVEL - 1

Set A1

EHF OLYMPIADS

- 4000 schools • 6 lakh students
- 10 olympiads • Global outreach



NATIONAL IIT-PMT OLYMPIAD (NIPPO)

EHF NATIONAL IIT-PMT OLYMPIAD

Name :

Roll No :

Class :

School :



NATIONAL BIOTECHNOLOGY OLYMPIAD



NATIONAL MATHS OLYMPIAD



NATIONAL SCIENCE OLYMPIAD



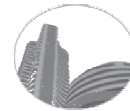
INTERNATIONAL CYBER OLYMPIAD



INTERNATIONAL ENGLISH OLYMPIAD



INTERNATIONAL GENERAL KNOWLEDGE OLYMPIAD



BSE INVESTORS' PROTECTION FUND

BSE international finance olympiad (BIFO)



NATIONAL IIT-PMT OLYMPIAD (NIPPO)

Level - 1 : All Level-1 successful* participants will get certificate, aptitude report and online subscription, and school toppers will be eligible for school hero medals.

Level - 2 : School toppers* will be selected for level-2-National level - online computer based interactive test held at exam centres all over India. Besides selection for level-3, winner will get merit certificate, medals, educational CDs, laptop, scholarship and other prizes. There is no level-2 in Art and Cricket.

Level - 3 : Toppers will qualify* for level-3-International level-where you will compete with students globally. Get selected for EHF's International Olympiad training camp. Only Indian organization giving students exposure to global competitions. Represent India & win laurels. Guidance by top scientists. Prizes ranges from cash (millions of \$), gadgets, foreign trips, publicity, fame, scholarships, Internships, conference participation and more.

* # See prospectus website for details

Instructions for the Candidate

1. You are allowed additional 10 minutes to fill the required details in the RESPONSE SHEET (OMR).
2. The question paper is made as per syllabus guidelines & pattern given in the information Booklet. The Question Paper for Classes 1 to 6 contains 25 Questions each to be answered in 40 minutes. The Question paper for classes 7 to 12 contains 50 Questions each to be answered in 60 minutes. All questions are compulsory. Further instructions are given in the instruction letter to the teacher.
3. Use the response sheet to mark your responses by darkening the required circle. The response sheet has to be returned to the foundation, duly filled in. THE STUDENT CAN RETAIN THE QUESTION PAPER.

WEBSITE : WWW.EDUHEALFOUNDATION.ORG
E-MAIL : INFO@EDUHEALFOUNDATION.ORG

ROUGH WORK

SCIENCE

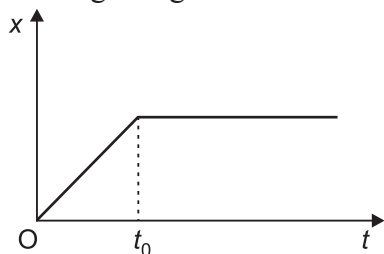
1. Vacuum between the walls of a flask reduces heat transfer by

- (1) conduction only
- (2) radiation only
- (3) convection only
- (4) both conduction and convection

2. By inserting a soft iron piece into a current carrying coil, the strength of the magnetic field

- (1) increases
- (2) decreases
- (3) first increases then decreases
- (4) remains unchanged

3. Given figure shows the distance time graph of a particle moving along the x -axis.



- (1) the particle is continuously going in positive x -direction
- (2) the particle is at rest
- (3) the speed increases up to a time t_0 , and then becomes constant.
- (4) the particle moves at a constant speed up to a time t_0 and then stops.

4. Rohit took a paper blotted with solution X. He dipped the paper in sulphuric acid. It turned red. What do you think the paper was blotted with?

- (1) Turmeric
- (2) Phenolphthalein
- (3) Onion extract
- (4) Methyl orange

5. Conversion of liquefied petroleum gas from liquid form in cylinder to gaseous form is

- (1) Physical change

(2) Chemical change

(3) Undesirable change

(4) Both (2) & (3)

6. The dilute solutions of which of the following are not harmful to drink:

(i) Magnesium hydroxide

(ii) Potassium hydroxide

(iii) Sodium hydrogen carbonate

(iv) Sodium carbonate

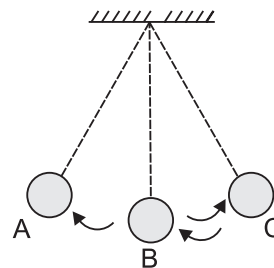
(1) (i) & (ii)

(2) (ii) & (iii)

(3) (i) & (iii)

(4) (ii) & (iv)

7. A stopwatch records the successive positions [B \rightarrow C \rightarrow B \rightarrow A and so on] of the motion of a simple pendulum. The readings in seconds of the stopwatch with the corresponding position of the bob is as shown in the table.



Reading (in seconds)	Position of bob
20	B
24	C
28	B

The time taken to complete two oscillations is

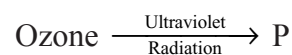
(1) 4 s

(2) 8 s

(3) 16 s

(4) 32 s

8. Identify the product 'P' in the following reaction:



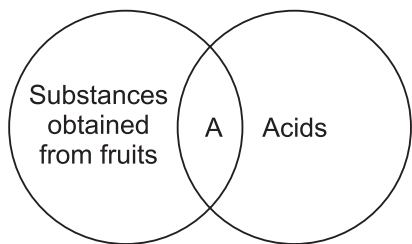
(1) Carbon dioxide

(2) Mixture of oxygen and carbon dioxide

(3) Oxygen

(4) Mixture of nitrogen and carbon dioxide

9. Consider the given Venn diagram.



On the basis of given Venn diagram, substance 'A' cannot be

- (1) Ascorbic acid (2) Citric acid
 (3) Tartaric acid (4) Hydrochloric acid

10. Which of the following organs is not a part of human respiratory system?

- (1) Trachea (2) Lung
 (3) Oesophagus (4) Nasal passage

11. In buffaloes, cellulose of grass is digested in a sac like structure called 'X' with the help of a certain bacteria. 'X' is located between

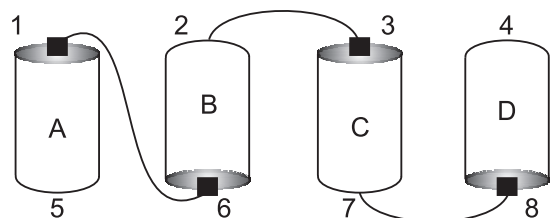
- (1) Oesophagus and rumen
 (2) Small intestine and large intestine
 (3) Rumen and small intestine
 (4) Stomach and small intestine

12. The odometer of a car reads the following distances at the given instants. The ratio of average speed of the car in the first and the second intervals is

Time	Odometer reading
9 : 45 AM	4404 km
10 : 15 AM	4449 km
10 : 30 AM	4469 km

- (1) 9 : 8 (2) 8 : 9
 (3) 9 : 2 (4) 2 : 1

13. The bulb connected across which of the following terminals will not glow?



[Given all cells are identical]

- (1) 1 and 3 (2) 1 and 6
 (3) 2 and 8 (4) 1 and 8

14. A gas 'X' is evolved when baking soda is added to vinegar. When 'X' is passed through lime water, the colour of the solution turns milky due to the formation of a new substance 'Y'. 'X' and 'Y' respectively are

- (1) Carbon dioxide and calcium carbonate
 (2) Hydrogen and calcium oxide
 (3) Carbon dioxide and calcium oxide
 (4) Hydrogen and calcium carbonate

15. Due to low atmospheric pressure, the rate of transpiration will

- (1) increase (2) decrease rapidly
 (3) decrease slowly (4) remain unaffected

16. Guard cells help in

- (1) Transpiration
 (2) Protection against grazing
 (3) Fighting against infection
 (4) Guttation

17. Which one of the following crops requires continuous semi-aquatic condition for cultivation?

- (1) Rice (2) Wheat
 (3) Groundnut (4) Sugarcane

18. Which of the following process is not part of wool extraction?

- (1) Shearing (2) Sorting
 (3) Reeling (4) Scouring

19. By which process do light rays pass through?

- (1) Conduction
 (2) Convection
 (3) Radiation
 (4) Conduction and convection

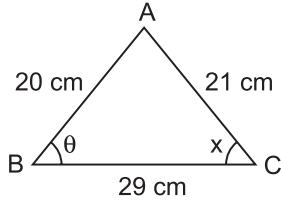
20. What is the animal symbol of W. W. F. (World Wildlife Fund)?

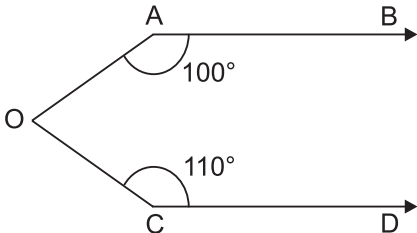
- (1) Red Panda (2) Giant Panda
 (3) Tiger (4) Kangaroo

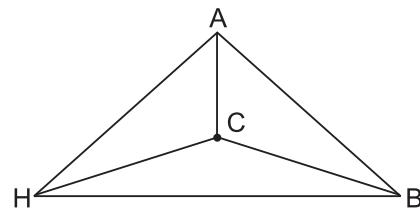
21. Winds blow
- (1) In region of low pressure
 - (2) From a region of high pressure to a region of low pressure
 - (3) From a region of low pressure to a region of high pressure
 - (4) In region of high pressure
22. Light travels at the fastest speed in
- (1) glass
 - (2) water
 - (3) hydrogen
 - (4) vacuum

23. The vitamin which is generally excreted by human in urine is
- (1) Vitamin - A
 - (2) Vitamin - D
 - (3) Vitamin - C
 - (4) Vitamin - E
24. During respiration yeast converts glucose to
- (1) ethanol and water
 - (2) ethanol and oxygen
 - (3) ethanol and CO_2
 - (4) lactic acid and CO_2
25. Conversion of chemical energy to electrical energy can be achieved by
- (1) electric generator
 - (2) solar cells
 - (3) cells
 - (4) both (1) and (2)

MATHEMATICS

26. The largest of the following is
- (1) $0.0001 + 0.01$
 - (2) $\frac{1}{100} - \frac{1}{1000}$
 - (3) $(0.1)^2$
 - (4) $\frac{1}{10} \div 0.001$
27. After 35 years, Rohan will be 8 times as old as he is now. The present age of Rohan is
- (1) 5 years
 - (2) 7 years
 - (3) 4 years
 - (4) 8 years
28. In the given figure, the value of x is
- (1) 45°
 - (2) θ
 - (3) $90^\circ - \theta$
 - (4) 90°
- 
29. If $x - \frac{1}{3} = \frac{x-1}{3}$, then the value of x is
- (1) -1
 - (2) 1
 - (3) 3
 - (4) 0
30. $-42 \times 3 \times (-5) \times (-7)$ is equal to
- (1) $(-3) \times (15) \times (-294)$
 - (2) $(-15) \times 294$
 - (3) $(-3) \times (-5) \times 7 \times 42$
 - (4) $(-3) \times 35 \times 42 \times 3$

31. What must be subtracted from -3 to get -9 ?
- (1) -6
 - (2) 12
 - (3) 6
 - (4) -12
32. In the given figure, it is given that $AB \parallel CD$, $\angle BAO = 100^\circ$ and $\angle OCD = 110^\circ$. The value of $\angle AOC$ is
- (1) 210°
 - (2) 80°
 - (3) 140°
 - (4) 150°
- 
33. In a triangle ABC, if $3\angle A = 4\angle B = 6\angle C$, then the value of angle A is
- (1) 60°
 - (2) 80°
 - (3) 20°
 - (4) 100°
34. In the given figure, $\triangle ACB \cong \triangle ACH \cong \triangle BCH$. The value of $\angle BCH$ is



- (1) 60°
- (2) 30°
- (3) 120°
- (4) 45°

35. If the mean of 2, 3, x , 7, 8 is x , then the value of x is

- (1) 5 (2) 3
(3) 4 (4) 2

36. In a triangle ABC, $AB = 5$ cm and $BC = 4$ cm. Which of the following is true?

- (1) $1 \text{ cm} < CA < 9 \text{ cm}$
(2) $2 \text{ cm} < CA < 10 \text{ cm}$
(3) $4 \text{ cm} < CA < 5 \text{ cm}$
(4) $1 \text{ cm} < CA < 5 \text{ cm}$

37. The ratio between the perimeter and the breadth of a rectangle is 5 : 1. If the area of the rectangle is 216 sq. cm, what is the length of the rectangle?

- (1) 16 cm (2) 18 cm
(3) 24 cm (4) 20 cm

38. Which of the following lengths are the sides of a right triangle?

- (1) 2.4, 3.2, 4 (2) 4.3, 4.4, 4.5
(3) 3.1, 4.2, 4.8 (4) 3.4, 2.3, 5

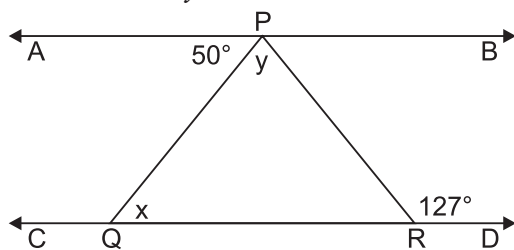
39. Half of 1 percent written as decimal is

- (1) 5 (2) 0.5
(3) 0.05 (4) 0.005

40. At what rate percent on simple interest will ₹750 amount to ₹900 in 5 years?

- (1) 5% (2) $3\frac{1}{2}\%$
(3) 4% (4) $5\frac{1}{2}\%$

41. In figure, $AB \parallel CD$, $\angle APQ = 50^\circ$ and $\angle PRD = 127^\circ$, find the value of y .



- (1) 137° (2) 87°
(3) 77° (4) 67°

42. The average of first 10 even numbers is

- (1) 18 (2) 22
(3) 9 (4) 11

43. If mean of 6 numbers is 17 then sum of numbers is

- (1) 102 (2) 103
(3) 150 (4) 120

44. Express $(3^7 \times 3^3) \times 3^3$ as a rational number with negative exponent.

- (1) $\left(\frac{1}{3}\right)^{-13}$ (2) $\left(\frac{1}{3}\right)^{-3}$
(3) $\left(\frac{1}{9}\right)^{-13}$ (4) $\left(\frac{1}{3}\right)^{13}$

45. A fruit seller had some apples. He sells 40% apples and still has 420 apples. Originally, he had:

- (1) 588 apples (2) 600 apples
(3) 672 apples (4) 700 apples

46. Simplify the following numerical expression involving fractional numbers:

$$3\frac{1}{2} + \frac{5}{8} \div \frac{3}{4} - \frac{1}{2} \times 2\frac{1}{2}$$

- (1) $\frac{37}{12}$ (2) $\frac{11}{2}$
(3) 2 (4) 19

47. By selling 150 mangoes, a fruit-seller gains the selling price of 30 mangoes. Find the gain percent.

- (1) 20% (2) 25%
(3) 18% (4) 30%

48. Find the angle which is five times its complement.

- (1) 55° (2) 75°
(3) 65° (4) 85°

49. The average of the first five multiples of 9 is:

- (1) 20 (2) 27
(3) 28 (4) 30

50. A TV is purchased at ₹5000 and sold at ₹4000, find the loss percent.

- (1) 10% (2) 20%
(3) 25% (4) 28%



END OF THE EXAM