



EHF
LEARNING FOR LIFE

**EDUHEAL
FOUNDATION**

**CLASS
7**

LEVEL - 1

Set A1

EHF OLYMPIADS

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



EHF

**NATIONAL INTERACTIVE
MATHS OLYMPIAD**

Name :

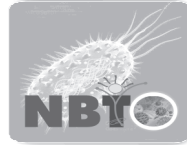
Roll No :

Class :

School :



**NATIONAL
BIOTECHNOLOGY
OLYMPIAD**



**NATIONAL
MATHS
OLYMPIAD**



**NATIONAL
SCIENCE
OLYMPIAD**



**INTERNATIONAL
CYBER
OLYMPIAD**



**INTERNATIONAL
ENGLISH
OLYMPIAD**



**INTERNATIONAL
GENERAL KNOWLEDGE
OLYMPIAD**



BSE international finance olympiad (BIFO)



NATIONAL IIT-PMT OLYMPIAD (NIPO)

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

MENTAL ABILITY

1. Sunny ranked 16th from the top and 29th from the bottom among those who passed an examination. 6 boys did not participate in the competition and 5 failed in the examination. How many boys were there in that class?

- (1) 44
- (2) 40
- (3) 55
- (4) None of these

2. Flight to Mumbai leaves every 5 hours. At the information counter I learnt that the flight took off 25 minutes before. If the time now is 10:45 am, what is the time for the next flight?

- (1) 3:20 pm
- (2) 3:55 pm
- (3) 3:30 am
- (4) None of these

3. Find the next number in the sequence:



- (1) 36
- (2) 81
- (3) 64
- (4) None of these

4. Find the missing one from 4 alternatives

LLMO: MMNO :: AABD : ?

- (1) BBCE
- (2) ABBC
- (3) BBCD
- (4) None of these

5. If / means \times , \times means $-$, $+$ means \times and $-$ means $/$ then

$$2 + 8 \times 16 - 14/2 = ?$$

- (1) 4
- (2) 8
- (3) 10
- (4) None of these

6. The mean age of a family of 6 members is 25 years. The mean age of family after a 45 year old member

leaves is

- (1) 19 years
- (2) 21 years
- (3) 23 years
- (4) None of these

7. In how many ways can four children be made to stand in a line such that two of them, A and B are always together?

- (1) 6
- (2) 12
- (3) 18
- (4) None of these

8. Four children are sitting in a row. P is occupying the seat next to Q but not next to R. If R is not sitting next to S. Who is/are occupying seat/seats adjacent to S?

- (1) Q
- (2) P
- (3) Both Q and P
- (4) None of these

9. The coach arrived at the playground at 8:35. Rajiv arrived 45 minutes later and was 15 minutes late for the training. By how much time did the coach come early than the scheduled time?

- (1) 35 minutes
- (2) 45 minutes
- (3) 15 minutes
- (4) None of these

10. Find the odd one in the following group:

Q, W, Z, B

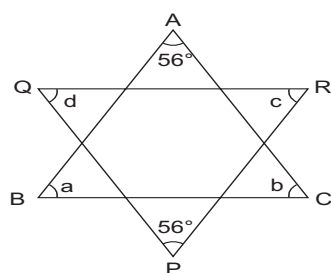
B, H, K, M

W, C, G, J

- (1) Q, W, Z, B
- (2) B, H, K, M
- (3) W, C, G, J
- (4) None of these

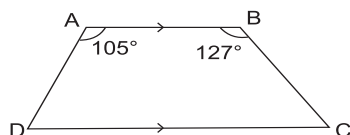
MATHEMATICS

11. In the figure (not drawn to scale) find angle $a + \text{angle } b + \text{angle } c + \text{angle } d$.



- (1) 168 degrees
(2) 248 degrees
(3) 112 degrees
(4) None of these

12. The figure shows a trapezium ABCD. Given that $AB \parallel DC$, angle $BAD = 105^\circ$ and angle $ABC = 127^\circ$, find angle DCB and angle ADC.



- (1) 52° and 76°
(2) 35° and 93°
(3) 53° and 75°
(4) None of these

13. If the distance between the school and a student's house is 1 km 375 m, how much distance does he cover in 6 days?

- (1) 15 km 500 m (2) 15 km 750 m
(3) 16 km 500 m (4) None of these

14. Some medicines are packed in boxes each weighing 2 kg. What is the maximum number of boxes from the given options that can be loaded in a van which cannot carry beyond 400 kg?

- (1) 210 (2) 180
(3) 178 (4) None of these

15. Jatin is now $24p$ years old. He is thrice as old as his brother. Find their total age 4 years ago. Express your answer in terms of p in the simplest form.

- (1) $23p - 4$ (2) $32p - 8$
(3) $8p - 32$ (4) None of these

16. What is $\frac{5}{9}$ of 48?

- (1) $25\frac{1}{4}$ (2) $26\frac{2}{3}$
(3) $23\frac{1}{3}$ (4) None of these

17. If $A : B = 5 : 6$ and $B : C = 8 : 9$, find $A : B : C$.

- (1) 20 : 25 : 27 (2) 6 : 8 : 9
(3) 20 : 24 : 27 (4) None of these

18. What is the value of $3x^2 - 12xy + 4y^2$ when $x = 2$ and $y = 1$?

- (1) 8 (2) -8
(3) 6 (4) None of these

19. If the cost price of 10 chairs be equal to the selling price of 16 chairs. What is the gain or loss percent?

- (1) 37.5% loss (2) 37.5% gain
(3) 42.5% loss (4) None of these

20. A rational number $-\frac{2}{3}$

- (1) Lies to the left side of 0 on the number line.
(2) Lies to the right side of 0 on the number line.
(3) It is not possible to represent on the number line.
(4) None of these

21. Length and width of a field are in the ratio 5 : 3. If the width of the field is 42 m then its length is:

- (1) 100 m (2) 80 m
(3) 70 m (4) None of these

22. Two numbers are in the ratio 7 : 9. If the sum of the numbers is 112, then the larger number is

- (1) 49 (2) 63
(3) 72 (4) None of these

23. The number of trees in different parks of a city are 33, 38, 48, 33, 34, 34, 33 and 24. The mode of this data is

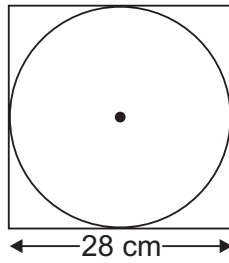
- (1) 24 (2) 34
(3) 33 (4) None of these

24. There are two aces in each of the given set of cards placed face down. From which set are you certain to pick the two aces in the first go?



- (4) None of these

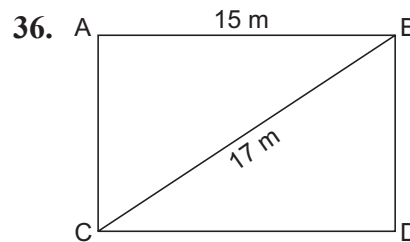
25. A circle is inscribed in a square of side 28 cm. Find the area of the circle.



- (1) 661 cm^2
 (2) 616 cm^2
 (3) 166 cm^2
 (4) None of these
26. Rahul has three containers:
- (a) Cylindrical container A having radius r and height h .
 (b) Cylindrical container B having radius $2r$ and height $1/2 h$.
 (c) Cuboidal container C having dimensions $r \times r \times h$
- The arrangement of the containers in the increasing order of their volumes is
- (1) A, B, C (2) B, C, A
 (3) C, A, B (4) None of these
27. By converting 4.8 mm^2 into cm^2 , answer will be
- (1) 0.048 cm^2 (2) 0.48 cm^2
 (3) 48 cm^2 (4) None of these
28. If $43 \text{ m} = 0.086$ then m has the value
- (1) 0.002 (2) 0.02
 (3) 0.2 (4) None of these
29. If four times of certain number 'a' is ten more than thrice number then equation derived for this statement can be written as
- (1) $3a = 4a + 10$ (2) $4a = 3a + 10$
 (3) $4a = 3a - 10$ (4) None of these
30. Type of polygon in which its all angles and sides are equal is classified as
- (1) regular octagon (2) regular hexagon
 (3) regular polygon (4) none of these
31. Out of 52, 62, 70, 82, 78, 66 numbers that have 13 as factors are
- (1) 52, 78 (2) 66, 78
 (3) 70, 78 (4) None of these
32. Flat surface in which two points are joined by using straight line is classified as
- (1) plane (2) line
 (3) ray (4) none of these
33. Madhu has 10 candies. She gave 4 candies to Jolly and Jolly returned two candies to Madhu after few days. Number of candies Madhu has altogether are

- (1) 8 (2) -8
 (3) 10 (4) None of these
34. Ram purchased a item for ₹50,000. He spent ₹11,000 for repairs. If he sold the item for ₹58,000, find the percentage of loss or gain in the transaction?
- (1) $5\frac{55}{62}\%$ (2) $4\frac{56}{61}\%$
 (3) $7\frac{59}{60}\%$ (4) None of these

35. Subir bought $2\frac{7}{5}$ kg of flour in one week and $3\frac{4}{15}$ kg of flour in second week. How much flour Subir bought altogether?
- (1) $7\frac{2}{3}$ (2) $5\frac{2}{3}$
 (3) $6\frac{2}{3}$ (4) None of these



- Then find the area of the field.
- (1) 120 m^2 (2) 130 m^2
 (3) 140 m^2 (4) None of these
37. The percentage increase in the area of a rectangle, if each of its sides is increased by 20% is
- (1) 32% (2) 34%
 (3) 44% (4) None of these
38. If x be any non-zero integer m , n be negative integers, then $x^m \times x^n$ is equal to
- (1) x^m (2) x^{m+n}
 (3) x^n (4) none of these
39. Value of x in the given figure is
- (1) 70°
 (2) 20°
 (3) 110°
 (4) None of these
40. If 21Y5 is a multiple of 9, where Y is a digit, when Y is
- (1) 1 (2) 2
 (3) 3 (4) None of these

INTERACTIVE SECTION

41. If a car arrived at 17 00 after travelling for 2 hr 45 mins then time at which car started its journey is
- (1) 11 15 a.m.
 - (2) 14 15 p.m.
 - (3) 15 15 p.m.
 - (4) None of these



42. If Hazel makes 20 garlands in 40 mins then number of garlands Hazel can make in 28 mins are
- (1) 14
 - (2) 16
 - (3) 18
 - (4) None of these

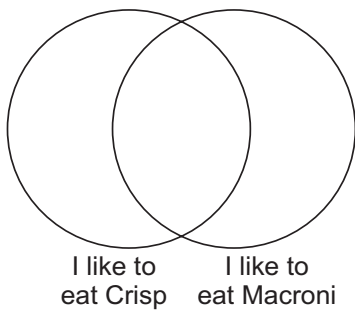


43. If 10:15 a.m. is converted into 24-hour clock then time notation can be written as
- (1) 35 hours
 - (2) 20 15
 - (3) 10 15
 - (4) None of these

44. If a computer has a sale price of ₹507, what was the original price?
- (1) ₹676
 - (2) ₹2000
 - (3) ₹767
 - (4) None of these



45. 8 of the students in Tanavi's class like to eat crisps. 5 Students like to eat macaroni and 4 students like to eat both crisps and macaroni. How many students like to eat macaroni but not crisps?



- (1) 1
- (2) 2
- (3) 3
- (4) None of these

46. At Aish's Beading Boutique, 10% of the 50 beads on clearance are plastic. How many plastic beads are there on clearance?
- (1) 19
 - (2) 10
 - (3) 5
 - (4) None of these
47. How much more does a photo album cost than a dictionary?

Book of piano music	₹ 1,023.00
Dictionary	₹ 1,160.00
Atlas	₹ 2,023.00
Photo Album	₹ 1,968.00
Cookbook	₹ 1,177.00
Scrap Book	₹ 1,079.00

- (1) 800
 - (2) 808
 - (3) 900
 - (4) None of these
48. Anita and her friends want to go to the films on Saturday. The film they want to see starts at 2:00 P.M. It takes 45 minutes to drive to the theatre, and they want to get there 15 minutes before the film starts so that they can buy tickets and snacks. What is the latest time Anita and her friends can leave for the theatre?
- (1) 11:00 A.M.
 - (2) 11:30 A.M.
 - (3) 11: 00 P.M.
 - (4) None of these
49. There are 15 pieces of fruits in a basket , including 6 bananas. What is the probability that a randomly selected piece of fruit will be a banana?
- (1) $\frac{2}{5}$
 - (2) $\frac{1}{6}$
 - (3) $\frac{15}{6}$
 - (4) None of these
50. Look at this set of 5 numbers:

61, 95, 61, 88, 61

How would the mode change if the number 61 replaced the number 88 in the set?

- (1) Increase
- (2) Decrease
- (3) No change
- (4) None of these



END OF THE EXAM