Duration : 60 min.
Class : 8th

Maximum Marks : 180
Subject : MATHEMATICS

International Talent Search Examination - 2022-23

अंतर्राष्ट्रीय प्रतिभा खोज परीक्षा - २०२२-२३

Organized by

Savitri Skill Development Institute, Training Partner with
Ministry of Micro Small & Medium Enterprises (MSME), Govt. of India.

TEST BOOKLET

Name : .....

Class : ..... School: .....

Father's Name : ..... Father's Occupation : .....

Mother's Name : ..... Mother's Occupation : .....

Categories : Gen ☐ OBC ☐ SC ☐ ST ☐

Correspondence Address :.....

Date of Birth : ☐☐ ☐☐ ☐☐☐☐

Father's Contact No : ☐☐☐☐☐☐☐☐☐☐

Home/Mother's Contact No. : ☐☐☐☐☐☐☐☐☐☐

WhatsApp No. : ☐☐☐☐☐☐☐☐☐☐

Basic Instructions:

i. Ensure that your personal data has been entered correctly.
ii. Immediately after opening the test booklet verify that all the pages are printed properly and are in order. If there is a problem with your test booklet, immediately inform the invigilator. You will provided with the replacement.
iii. All questions in are compulsory.
iv. For every correct answer you will be awarded with 4 marks and for all incorrect answer 1 mark will be deducted.
v. Directions for answering the questions are given. Read those directions carefully and answer the question by circling the bubble in the OMR Sheet Provided to you. Test booklet/OMR Sheet will be submitted at the end of the examination.
vi. Follow the instructions given by the invigilator. Students found violating the instructions will be disqualified.
vii. Rough work can be done separately or on the Question paper.
viii. Please fill the bubbles in OMR sheet with Blue or Black pen only.
ix. Do not tear the question paper or OMR sheet else you will be disqualified in the examination.

CLASS-8 MATHEMATICS

1. $0 \div (-10) = ?$
   (A) - 10 (B) 0 (C) 1 (D) not defined

2. By how much does - 3 exceed - 5?
   (A) 8 (B) - 8 (C) - 2 (D) 2

3. Additive inverse of - 5 is
   (A) 5 (B) - 5 (C) 1 (D) 0

4. $1\frac{1}{2} \div 2\frac{1}{4}$ is equal to
   (A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{3}{4}$ (D) $\frac{2}{3}$

5. $3\frac{1}{4} - 2\frac{1}{3}$ is equal to
   (A) $\frac{13}{11}$ (B) $\frac{11}{12}$ ©) $\frac{1}{12}$ (D) $1\frac{1}{12}$

6. $(0.4)^3$ is equal to
   (A) 0.064 (B) 6.4 (C) 64 (D) 0.64

7. The true statement is
   (A) 1.23 > 1.32 (B) 1.14 > 1.040 (C) 1.197 > 1.201 (D) 1.140 > 1.143

8. Multiplicative inverse of $-\frac{1}{6}$ is
   (A) - 6 (B) 6 (C) 1 (D) 0

9. $-\frac{5}{9} + x = 1$, then x is equal to
   (A) $-\frac{4}{9}$ (B) $\frac{4}{9}$ (C) $\frac{14}{9}$ (D) $-\frac{14}{9}$

10. The value of $\left(-\frac{12}{7} \times -\frac{14}{27}\right) - \left(-\frac{8}{45} \times \frac{9}{16}\right)$ is equal to
    (A) $\frac{89}{90}$ (B) $-\frac{89}{90}$ (C) $-\frac{87}{90}$ (D) $-\frac{83}{90}$

11. Rs. 640 is divided among A, B, C in the ratio 2 : 3 : 5, then B's share is
    (A) 180 (B) 320 (C) 192 (D) 128

12. If x : 27 : : 2 : 9, then x is
    (A) 12 (B) 10 (C) 8 (D) 6

13. 8% of number is 60. What is the number?
    (A) 480 (B) 960 (C) 750 (D) 600

14. In what time will Rs. 8000 amount to Rs. 8240 at 4% per annum simple interest?
    (A) 8 months (B) 9 months (C) $1\frac{1}{4}$ yrs (D) $1\frac{1}{2}$ yrs

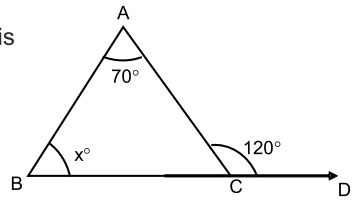
15. The sum of angles = 180°, difference of angles = 40°. Then the measure of larger angle is
    (A) 110° (B) 70° (C) 80° (D) 140°

16. After 8 yrs A will be 3 times as old as he was 2 years ago. His age at present is
    (A) 11 (B) 9 (C) 7 (D) 6

17. The value of (x - 3y) x (2x + 5y) is equal to
    (A) $2x^2 + xy + 15y^2$ (B) $2x^2 - xy - 15y^2$ (C) $2x^2 + xy - 15y^2$ (D) $2x^2 - xy + 15y^2$

18. The length of diagonal of a square is 5 m. Its area is
    (A) 12.5 m^2 (B) 25 m^2 (C) 6.25 m^2 (D) 50 m^2

19. In the given figure, the value of x is



(A) 50° (B) 35° (C) 60° (D) 70°

20. The area of triangle with sides 6 cm, 8 cm and 10 cm is
(A) 40 cm^2 (B) 30 cm^2 (C) 24 cm^2 (D) 36 cm^2

21. The radius of a wheel 7 cm. In covering 44 km, how many revolutions will it make?
(A) 10000 (B) 1000000 (C) 100000 (D) 50000

22. The value of is equal to $\left[\left\{\left(-\frac{1}{3}\right)^2\right\}^{-2}\right]^{-1}$

(A) $\frac{1}{81}$ (B) $-\frac{1}{81}$ (C) – 81 (D) 81

23. What percent of Rs. 75 is Rs. 12?
(A) $6\frac{1}{2}\%$ (B) 13% (C) 16% (D) 24%

24. Each side of equilateral triangle is $2\sqrt{3}$ cm. Its height is
(A) $\sqrt{3}$ cm (B) $2\sqrt{3}$ cm (C) $\frac{2}{\sqrt{3}}$ cm (D) 3 cm

25. 35% of a number added to 39 is the number itself, the number is
(A) 60 (B) 65 (C) 75 (D) 105

26. 70% of students in a school are boys. If the number of girls is 240, how many boys are there in the school?
(A) 420 (B) 560 (C) 630 (D) 480

27. In a triangle ABC, right angled at B, if AB = 5 cm and AC = 13 cm, then BC is equal to
(A) 12 cm (B) 8 cm (C) 9 cm (D) 7 cm

28. On a map 0.7 cm represents 7 km. How much distance will be represented by 4 cm?
(A) 40 km (B) 32 km (C) 24 km (D) 16 km

29. On side of a rhombus is 20 m and one of its diagonals measures 24 m. The area of rhombus is
(A) 384 m^2 (B) 192 m^2 (C) 96 m^2 (D) 128 m^2

30. At what rate percent per annum simple interest will a sum be triple of itself in 12 years?
(A) 14% (B) $16\frac{2}{3}\%$ (C) 18% (D) 15%

31. Which of the following numbers is not prime?
(A) 571 (B) 241 (C) 337 (D) 391

32. The least among the following is
(A) $(0.2)^2$ (B) $0.\overline{2}$ (C) 1 ÷ 0.2 (D) 0.21

33. x is a factor of every number, then x is equal to
(A) 0 (B) - 1 (C) 1/ - 1 (D) none of these

34. The smallest prime number which is even is
(A) 2 (B) 4 (C) 0 (D) 1

35. Which of the followings are co-prime?
(A) 8, 51 (B) 13, 91 (C) 18, 36 (D) 4, 222

36. What is the total number of prime numbers less than 70?
(A) 17 (B) 18 (C) 19 (D) 20

37. Which of the following statement is incorrect?
(A) each angle of a rectangle is a right angle (B) the sides of a rectangle are equal
(C) all the sides of a rhombus are of equal length (D) square is also a parallelogram

38. When the sum of the measures of two angles is that of a straight angle and if one of them is acute then the other should be a/an
(A) right angle (B) acute angle (C) obtuse angle (D) can't say

39. 3 x 0.3 x 0.03 x 0.003 x 30 is equal to
(A) 0.0002430 (B) 0.00243 (C) 0.0243 (D) none of these

40. Which of the following fractions is the largest?
(A) $\frac{7}{8}$ (B) $\frac{13}{16}$ (C) $\frac{31}{40}$ (D) $\frac{63}{80}$

41. 2 ÷ 0 is equal to
(A) 0 (B) 2 (C) not defined (D) none of these

42. Which of the following statements is (are) true?
(A) the measure of an acute angle ≤ 90°
(B) 2 is not a prime number
(C) 18 and 37 are not co-prime
(D) a square can be thought of as a special rhombus

43. A motorbike travels 220 km in 5 litres of petrol. How much distance will it cover in 1.5 litres of petrol?
(A) 65 km (B) 68 km (C) 67 km (D) 66 km

44. There are four prime numbers written in ascending order. The product of the first three is 385 and that of the last three is 1001. The last number is
(A) 11 (B) 13 (C) 15 (D) 19

45. Which of the following statements is true?
(A) 1 is a prime number
(B) number of multiples of a given number is finite
(C) number of factors of a given number are infinite
(D) 1 is neither a prime nor a composite number