



GG RS LEARNING HUB PVT. LTD.

### IMO Class 05

Total Questions: 35

Time: 60 min

- What is the difference between the largest 8-digit number and the smallest 7-digit number, when both are formed using unique digits?  
A) 97,654,321      B) 98,765,432  
C) 97,740,740      D) 88,530,864
- The product of two co-prime numbers is 117. What is their Least Common Multiple (LCM)?  
A) 1      B) 117  
C) Cannot be determined      D) 13
- A rectangular swimming pool is 50 meters long and 30 meters wide. A path 2.5 meters wide is built around the pool. What is the area of the path?  
A) 1500 sq. M      B) 425 sq. m  
C) 200 sq. M      D) 1925 sq. m
- A clock gains 10 seconds every 3 hours. If it is set correctly at 9:00 AM on Monday, what time will it show at 9:00 PM on Tuesday?  
A) 9:02:00 PM      B) 9:03:00 PM  
C) 9:02:30 PM      D) 9:02:00 PM
- What is the value of the Roman numeral expression: (DCLXVI - CCXLVI) ÷ III?  
A) CXLI B) CXLVII C) CDXXI D) CXL
- If  $\frac{3}{5}$  of a number is 48, what is 75% of that number?  
A) 60 B) 80 C) 48 D) 75
- An angle is  $\frac{2}{3}$  of its supplement. What is the measure of the angle?  
A) 108 degrees      B) 72 degrees  
C) 36 degrees      D) 90 degrees
- The average of five consecutive odd numbers is 31. What is the product of the smallest and the largest number?  
A) 945 B) 31 C) 155 D) 899
- A water tank is  $\frac{5}{8}$  full. When 150 liters of water are removed, it becomes  $\frac{1}{2}$  full. What is the total capacity of the tank?  
A) 1200 liters      B) 800 liters  
C) 1000 liters      D) 1500 liters
- What is the value of  $0.1 \times 0.01 + 0.01 \times 0.001$ ?  
A) 0.00101      B) 0.0011  
C) 0.0101      D) 0.00011
- The perimeter of a square is 48 cm. If the side of the square is decreased by 4 cm, what is the percentage decrease in its area?  
A) 55.5%      B) 33.3%  
C) 25%      D) 44.4%
- A shopkeeper sells an item for ₹540 at a 10% loss. At what price should he sell it to make a 20% profit?  
A) ₹600      B) ₹720  
C) ₹648      D) ₹660
- Find the next number in the series: 3, 4, 8, 17, 33, ...



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- A) 58 B) 50 C) 66 D) 49
14. What is the sum of all prime numbers between 50 and 70?
- A) 311 B) 313 C) 315 D) 309
15. The volume of a cube is  $512 \text{ cm}^3$ . What is the total length of all its edges?
- A) 64 cm B) 96 cm  
C) 128 cm D) 144 cm
16. A train 300 meters long passes a pole in 15 seconds. How long will it take to cross a 400-meter-long bridge?
- A) 20 seconds B) 25 seconds  
C) 35 seconds D) 40 seconds
17. If the three angles of a triangle are in the ratio 2:3:5, what type of triangle is it?
- A) Acute-angled B) Obtuse-angled  
C) Right-angled D) Equilateral
18. What is 0.05% of 2000?
- A) 1 B) 10 C) 100 D) 0.1
19. A work can be completed by 16 men in 15 days. In how many days can 24 men complete the same work?
- A) 10 days B) 12 days  
C) 14 days D) 8 days
20. What is the smallest 5-digit number that is exactly divisible by 41?
- A) 10004 B) 10045  
C) 10025 D) 10000
21. A number is first increased by 20% and then decreased by 20%. What is the net change in the number?
- A) 4% increase B) 4% decrease  
C) No change D) 1% decrease
22. How many diagonals does a regular octagon have?
- A) 8 B) 16 C) 20 D) 24
23. Find the value of:  $1 - 1/2 + 1/4 - 1/8$
- A)  $5/8$  B)  $3/8$  C)  $7/8$  D)  $1/8$
24. A father is 30 years older than his son. In 5 years, he will be 4 times as old as his son. What is the son's current age?
- A) 5 years  
B) 8 years  
C) 10 years  
D) 12 years
25. The HCF and LCM of two numbers are 12 and 180 respectively. If one of the numbers is 60, what is the other number?
- A) 24 B) 30 C) 36 D) 48
26. A circle is inscribed in a square of side 14 cm. What is the area of the circle? (Use  $\pi = 22/7$ )
- A)  $154 \text{ cm}^2$  B)  $196 \text{ cm}^2$   
C)  $44 \text{ cm}^2$  D)  $616 \text{ cm}^2$
27. If  $A=1, B=2, C=3, \dots$ , and  $Z=26$ , what is the value of  $(M + O + N + E + Y)$ ?
- A) 84 B) 86 C) 89 D) 92



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28. The temperature at noon was  $12^{\circ}\text{C}$ . It dropped by  $3^{\circ}\text{C}$  per hour for the next 6 hours. What was the temperature at 6:00 PM?
- A)  $-6^{\circ}\text{C}$  B)  $-3^{\circ}\text{C}$  C)  $0^{\circ}\text{C}$  D)  $-18^{\circ}\text{C}$
29. A fruit seller had some apples. He sells 40% of the apples and still has 420 apples left. How many apples did he have originally?
- A) 700 B) 600 C) 800 D) 1050
30. What is the sum of the face values of all the digits in the number 9,08,765?
- A) 35 B) 45  
C) 908765 D) 0
31. A car travels 210 km in 3 hours and 30 minutes. What is its speed in km/h?
- A) 50 km/h B) 60 km/h  
C) 70 km/h D) 75 km/h
32. What is the reflection of the point (5, -3) in the x-axis?
- A) (-5, 3) B) (-5, -3)  
C) (5, 3) D) (3, -5)
33. Simplify:  $(2.5 \times 2.5 - 1.5 \times 1.5) / (2.5 - 1.5)$
- A) 1 B) 2.5 C) 1.5 D) 4
34. A drum contains 60 liters of a mixture of milk and water in the ratio 2:1. How much water must be added to make the ratio 1:2?
- A) 40 liters B) 50 liters  
C) 60 liters D) 70 liters
35. The population of a town increases by 5% annually. If its present population is 40,000, what will it be after 2 years?
- A) 44,000 B) 44,100  
C) 45,000 D) 42,000