STO F1 2024-25 First Term Test

Name : _____ (　)

Class : F.1 _____

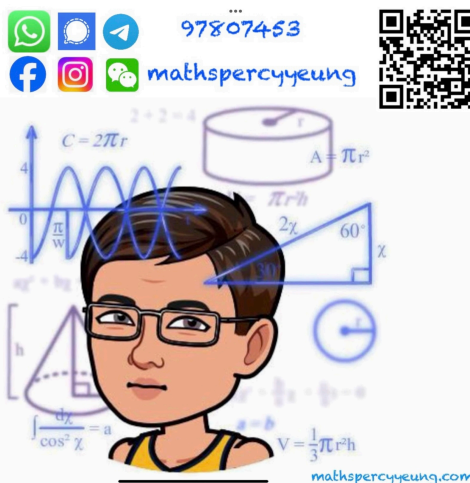Total Marks : 60   No. of Pages: 8

Answer all questions on this question answer book provided.

Part A : Multiple-Choice Questions (24 marks)

Write your answers in the spaces provided on page 3.

1.　The H.C.F. of $3^5 \times 5^2 \times 7^2$ and $5^3 \times 7$ is

　　A. $5^2 \times 7$.　　　　B. $5^3 \times 7^2$.　　　　C. $3^5 \times 5^2 \times 7$.　　　　D. $3^5 \times 5^3 \times 7^2$.

2.　$\dfrac{3}{5} \div \left(\dfrac{1}{15} + \dfrac{1}{30} \right) =$

　　A. $\dfrac{9}{50}$.　　　　B. 6.　　　　C. $9\dfrac{1}{30}$.　　　　D. 18.

3.　Which of the following is correct?

　　A. $5^4 = 5 \times 5 \times 5 \times 5$

　　B. $4^5 = 4 \times 5$

　　C. $3^3 = 3 + 3 + 3$

　　D. $6^3 = 3 \times 3 \times 3 \times 3 \times 3 \times 3$

4.　The L.C.M. of 4, 12 and 76 is

　　A. 4.　　　　B. 76.　　　　C. 152.　　　　D. 228.

5.　$13.7 - 3.4 \div 0.4 = ?$

　　A. 2.575　　　　B. 5.2　　　　C. 12.85　　　　D. 25.75

6. Arrange the following set of numbers in descending order.

$$4, \quad -7, \quad 0, \quad -5$$

   A. $-7 > -5 > 4 > 0$

   B. $0 > -7 > -5 > 4$

   C. $4 > 0 > -7 > -5$

   D. $4 > 0 > -5 > -7$

7. The result of "Divide the product of 12 and 4 by 3" is

   A. 16.   B. 9.   C. 8.   D. 6.

8. 4■11 is a 4-digit number. If it is divisible by 9, which of the following is the value of ■?

   A. 2   B. 3   C. 4   D. 5

9. Which of the following is true?

   A. 0 is a positive integer.

   B. -1.37 is a negative integer.

   C. $+4$ is a positive integer.

   D. The opposite number of $\dfrac{4}{7}$ is $-\dfrac{7}{4}$.

10. Which of the following is / are true?

   I. 1 is a natural number.

   II. 0 is a composite number.

   III. 2 is an even number.

   A. I only

   B. II only

   C. I and III only

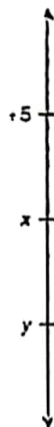   D. I, II and III

11. $5^3 - (7 \div 2^4 \times 5) =$

   A. 0.   B. 18.   C. 38.   D. 78.

12. In the figure, +5, x and y are three directed numbers marked on the vertical number line below.

   Which of the following must be true?

   A.   If x is positive, then y is also positive.

   B.   If x is positive, then y is negative.

   C.   If x is negative, then y is positive.

   D.   If x is negative, then y is also negative.

1.	2.	3.	4.	5.	6.
7.	8.	9.	10.	11.	12.

Part B : Conventional Questions (36 marks)

13. Suppose $+1000$ means earning $1000 as a profit.   (3 marks)

    (a) Use a directed number to represent

        (i) a profit of $15 000,

        (ii) a loss of $22 000.

    (b) What does $-13 500$ mean in this situation?

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14. Write down the corresponding expressions and results of each of the following:

    (a) Multiply 48 by 3.

    (b) Subtract the sum of 21 and 32 from 200.   (5 marks)

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15. Find the value of each of the following expressions.

   (a) $4.28 + \left(\dfrac{4}{5} - 0.27\right) \times 0.3$ (3 marks)

   (b) $\left(\dfrac{1}{6} + \dfrac{4}{15}\right) \div \left(8 - \dfrac{2}{3}\right)$ (5 marks)

16. (a) Find the H.C.F. of 60 and 72 by short division. (3 marks)

(b) Find the L.C.M. of 34, 51 and 68 by prime factorization. (4 marks)

17. Use index notation to express 108 as a product of prime factors.

(2 marks)

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18. Arrange the following set of numbers in descending order using the symbol '>'.   (2 marks)

$$-\frac{5}{12}\ ,\ 0.83\ ,\ -\frac{5}{6}\ ,\ +\frac{1}{12}$$

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19. 62▲16 is a 5-digit number. If the number is divisible by 8, find two possible values of ▲.

(4 marks)

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20. Every weekday, Tony spends $\frac{3}{8}$ of his time on sleeping, $\frac{17}{48}$ of his time on studying and $\frac{1}{12}$ of his time on dining. Then, the remaining time will be his leisure time.

Tony claims that his leisure time is over 5 hours every weekday. Do you agree? Explain your answer.   (5 marks)

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