

# JSS2 MATHEMATICS

## FIRST TERM EXAMINATION

Time: 1 Hour | Class: JSS 2 | Total Marks: 30

### INSTRUCTIONS

1. Answer all questions in Section A.
2. Answer any THREE questions in Section B.
3. Show your workings clearly in the theory section.
4. Each objective question carries 1 mark. Each theory question carries 3 marks. One free bonus mark is added to each student's score.

### SECTION A: OBJECTIVE QUESTIONS (20 MARKS)

Choose the correct answer from options A–D.

1. Find the simple interest on ₦5,000 at 10% per annum for 2 years.

- A. ₦500
- B. ₦1,000
- C. ₦1,500
- D. ₦2,000

2. What is the formula for calculating simple interest?

- A.  $SI = (P \times R \times T) / 100$
- B.  $SI = P + R + T$
- C.  $SI = (P \times T) / R$
- D.  $SI = P \times R \times T$

3. Find the LCM of 6 and 8.

- A. 12
- B. 18
- C. 24
- D. 48

4. Find the HCF of 24 and 36.

- A. 6
- B. 8
- C. 12
- D. 18

5. Which of the following is the prime factorization of 60?

- A.  $2^2 \times 3 \times 5$
- B.  $2 \times 3 \times 10$
- C.  $2^3 \times 5$
- D.  $3^2 \times 5$

6. Express 72 as a product of prime factors in index form.

- A.  $2^2 \times 3^3$
- B.  $2^3 \times 3^2$
- C.  $2^3 \times 3$
- D.  $2 \times 3^3$

7. Express 45,000 in standard form.

- A.  $4.5 \times 10^3$
- B.  $45 \times 10^3$
- C.  $4.5 \times 10^4$
- D.  $4.5 \times 10^5$

8. Express  $6.2 \times 10^3$  in ordinary form.

- A. 620
- B. 6,200
- C. 62,000
- D. 620,000

9. Express 0.0008 in standard form.

- A.  $8 \times 10^{\blacksquare^3}$
- B.  $8 \times 10^{\blacksquare\blacksquare\blacksquare}$
- C.  $8 \times 10^{\blacksquare}$
- D.  $8 \times 10^{\blacksquare\blacksquare\blacksquare}$

10. Calculate  $(2 \times 10^3) \times (3 \times 10^2)$ .

- A.  $5 \times 10^{\blacksquare}$
- B.  $6 \times 10^{\blacksquare}$
- C.  $6 \times 10^{\blacksquare}$
- D.  $5 \times 10^{\blacksquare}$

11. Calculate  $(8 \times 10^{\blacksquare}) \div (2 \times 10^2)$ .

- A.  $4 \times 10^3$
- B.  $4 \times 10^{\blacksquare}$
- C.  $6 \times 10^{\blacksquare}$
- D.  $4 \times 10^{\blacksquare}$

12. Calculate  $(3 \times 10^{\blacksquare}) + (5 \times 10^{\blacksquare})$ .

- A.  $8 \times 10^{\blacksquare}$
- B.  $8 \times 10^{\blacksquare}$
- C.  $2 \times 10^{\blacksquare}$
- D.  $15 \times 10^{\blacksquare}$

13. Convert  $3/4$  to a decimal.

- A. 0.25
- B. 0.50
- C. 0.75
- D. 0.80

14. Convert  $1/5$  to a percentage.

- A. 5%
- B. 10%
- C. 20%
- D. 25%

15. Express 0.35 as a fraction in its simplest form.

- A.  $35/10$
- B.  $7/20$
- C.  $3/5$
- D.  $5/7$

16. Express 45% as a fraction in its simplest form.

- A.  $9/20$
- B.  $4/5$
- C.  $45/10$
- D.  $1/4$

17. Find 25% of 800.

- A. 100
- B. 150
- C. 200
- D. 250

18. Find the simple interest on 2,000 at 5% per annum for 3 years.

- A. 100
- B. 200
- C. 300
- D. 500

19. Find the LCM of 12 and 18.

- A. 6
- B. 18
- C. 24
- D. 36

20. Which of the following numbers is a prime number?

- A. 21
- B. 27
- C. 29
- D. 33

## SECTION B: THEORY (ANSWER ANY THREE QUESTIONS)

### 1. Simple Interest

- a. Calculate the simple interest on 6,000 at 5% per annum for 2 years. (2 marks)
- b. Find the total amount after adding the interest to the principal. (1 mark)

### 2. LCM and HCF

- a. Find the LCM of 12 and 18. (1 mark)
- b. Find the HCF of 24 and 40. (2 marks)

### 3. Standard Form

- a. Express 560,000 in standard form. (1 mark)
- b. Calculate and express your answer in standard form:  $(4 \times 10^3) \times (2 \times 10^2)$ . (2 marks)

### 4. Prime Factorization

- a. Express 36 as a product of prime factors. (2 marks)
- b. Write your answer in index form. (1 mark)

### 5. Fractions, Decimals and Percentages

- a. Convert  $\frac{3}{5}$  to a decimal. (1 mark)
- b. Convert 0.4 to a percentage. (1 mark)
- c. Express 25% as a fraction in its simplest form. (1 mark)