



# SAMSKARA ACADEMY

## Continuous Comprehensive Evaluation II – SEPTEMBER 2024

GRADE: 7

DURATION:  $2\frac{1}{2}$  hrs.

DATE: 26/09/2024 (FN)

SUBJECT: ~~MATHEMATICS~~ *Mathematics*

MAX MARKS: 80

*Answers to this Paper must be written on the paper provided separately.*

*You will **not** be allowed to write during the first 10 minutes. You will use this time to read the question paper.*

*The time given at the head of this Paper is the time allowed for writing the answers.*

Attempt all questions from Section A and any four questions from section B.

**All working including rough work, must be clearly shown, and must be done on the same sheet as rest of the answer.**

**Omission of essential working will result in loss of marks .**

The intended marks for questions of parts of questions are given in brackets ( ).

### SECTION A (4 x 10 = 40)

(Answer all questions)

Question: 1

(10)

Choose the correct option:

- When 851 is divide by  $-23$ , the quotient is:  
a) 17                      b)  $-37$                       c) 41                      d)  $-21$
- Reciprocal of a proper fraction is :  
a) a proper fraction    b) a complex fraction    c) an improper fraction    d) unit fraction
- $14.987 + 0.0091 = ?$   
a) 14.9916              b) 14.9961              c) 14.9196              d) 14.9691
- $3^2 + 4 \times 3 - 3^3 = ?$   
a)  $-3$                       b)  $-6$                       c)  $-9$                       d) 0
- What is the degree of the polynomial  $x^2 + y^2 + x^3y^2 + 6$ ?  
a) 2                      b) 3                      c) 5                      d) 0
- A linear equation in one variable can have \_\_\_\_\_ solution(s).  
a) only 1                      b) 2                      c) 0                      d) 3

Question: 3

- (i) Add: -124 and 342      (ii) Divide -244 by -4 (2+2)
- The length of a rectangle is 2 more than its breadth. If the perimeter the rectangle is 36 cm, then find the dimensions of the rectangle. (4)
- The results of pass percentage of class 7 and 8 examination for 5 years are given in the following table.

Year	1994- 95	1995 - 96	1996 - 97	1997 - 98	1998 - 99
Class - 7	90	95	90	80	96
Class - 8	96	80	85	90	95

Draw bar graphs to represent the data.

(5)

### SECTION B (4 x 10 = 40)

Answer any four questions of the following

Question: 4

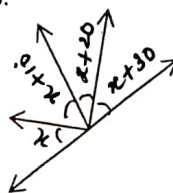
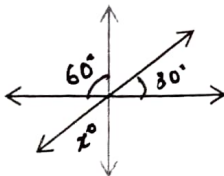
- Find A : B : C, when A : B = 2 : 5, B : C = 3 : 4 (3)
- Simplify and write in exponential form:  $(5^{20} \div 5^{11}) \times 5^4$ . (3)
- Simplify:  $\frac{3^5 \times 10^5 \times 25}{5^7 \times 6^5}$  (4)

Question: 5

- Simplify:  $\left(\frac{1}{7}\right)^0 + \left(\frac{1}{7}\right)^{-1} + \left(\frac{1}{7}\right)^{-2}$  (3)
- A car is travelling at the speed of 68 km/ hr. How much distance would it travel in 15 minutes? (3)
- The sides of a triangle are  $5a - 3b$ ,  $3a + 2b$  and  $5b - 2a$ , find its perimeter. (4)

Question: 6

- Solve :  $5 + 3(x - 1) = 5x - 6$  (3)
- Find the value of x in the following figures. (4)



- Find the supplementary angle of the angle:  $\frac{1}{2}$  of  $90^\circ$  (2)

d. Subtract:  $x^2 + y^2 + 2xy$  from  $2x^2 - 3y^2$ . (2)

Question: 7

a. (i) Express  $\frac{-64}{36}$  as a rational number with denominator -18 (2)

(ii) Evaluate :  $8 \div (-4) + 12$  (2)

b. The ratio of monthly income and saving of a family is 7 : 2. If the income of the family is Rs.25900, then find their savings and expenditure. (3)

c. If  $27^{2x-1} = 243^3$ , then find x. (3)

Question: 8

a. Find the fourth proportion of 12, 39 and 20 (2)

b. Add:  $17x - 4$ ,  $13x + 3$ ,  $7x - 1$  (2)

c. Reena climbs up 5 stairs every second and then climbs down 2 stairs over the next second. How many seconds will she take to climb 60 stairs. (3)

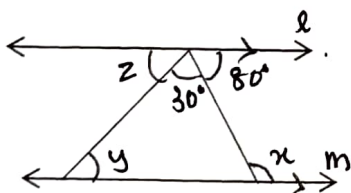
d. Solve the inequality:  $5 - 2x \geq x - 10$ ,  $x \in \mathbb{N}$  (3)

Question: 9

a. (i) Express 3908.78 in the standard form. (1)

(ii) Express  $4.83 \times 10^7$  in usual form. (1)

b. In the figure given below, l is parallel to m. Find the value of x, y, and z. (4)



c. The table given below shows the sale of some fruits in one day by a local market.

Fruit	Papaya	Pears	Mangoes	Oranges	Apple
Sale (in Kgs)	16	8	24	40	52

Represent the data by a bar graph. (4)