

Self Assessment Model Paper 3 (2025-26)**Maths - Grade 1**

Q. No.	Correct Answer/Rubric
1	A
2	B
3	C
4	B
5	C
6	B
7	B
8	A
9	C
10	B
11	If the student answers as a) 30 b) 40 c) 56, give 3 marks. If the student answers any two of the questions correctly, give 2 marks. If the student answers only one correctly, give 1 mark. If the student does not answer any question correctly, give 0 marks.
12	If the student matches a) Twenty - 20 b) FIFTY - 50 c) SIXTY - 60 correctly, give 3 marks. If the student matches only two out of three questions, give 2 marks. If the student matches only one correctly, give 1 mark. If the student does not match any one out of three correctly give 0 marks.
13	If the student fills boxes with 30, 33, and 34, respectively, give 3 marks. If the student fills in any two correctly, give 2 marks. If the student fills in only one correctly, give 1 mark. If the student does not fill in any box correctly, give 0 marks.
14	If the student identifies the numbers 60, 69, 95 as greater than 59 from the given numbers, give 3 marks. If the student identifies any two numbers correctly, give 2 marks. If the student identifies only one number correctly, give 1 mark. If the student does not identify any number correctly, give 0 marks.
15	If the student writes any three 2-digit numbers with the given numbers, (Ex: 75, 59, 95 etc) give 3 marks. If the student writes only two 2-digit numbers with the given numbers correctly, give 2 marks. If the student writes only one 2-digit number with the given numbers correctly, give 1 mark. If the student does not write any 2-digit number correctly with the given numbers, 0 marks.

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 2

Q. No.	Correct Answer/Rubric
1	B
2	A
3	B
4	A
5	A
6	B
7	A
8	C
9	C
10	B
11	<p>If the student matches a) $12 \div 2$ with 6 b) $10 \div 5$ with 2 c) $9 \div 3$ with 3 give 3 marks. If the student matches any 2 correctly give 2 marks. If the student matches one out of three correctly give 1 mark. If the student does not match any of the given problems 0 marks.</p>
12	<p>If the student writes a) $3 \times 10 = 30$, b) $9 \times 0 = 0$, c) $4 \times 1 = 4$ give 3 marks. If the student writes any two out of three correctly, give 2 marks. If the student writes only one out of three correctly, give 1 mark. If the student does not answer any one out of three correctly give 0 marks.</p>
13	<p>If the student writes table 4 with out any mistakes from 1 to 10 give 3 marks. If the student write the 4th table with 3 to 4 errors give 2 marks. If the student writes the 4th table 5 to 6 errors give 1 mark. If the student does not write 4th table 0 marks.</p>
14	<p>If the student provides the correct answer (5) and clearly shows the work (e.g., a division sentence or repeated addition), give 3 marks. If the student provides the correct answer but does not show any work, OR shows the correct method but makes a small counting/calculation error, give 2 marks. If the student's answer is incorrect, but the student attempted to write a number sentence related to the problem, give 1 mark. If the student does not attempt to answer the question 0 marks.</p>
15	<p>If the student fills all blanks correctly: "5" for trays, "10" for eggs per tray, and the multiplication sentence $5 \times 10 = 50$ is accurate, give 3 marks. If the student identifies the correct numbers (5 and 10) but makes a calculation error in the total (e.g., writes 40 or 60), OR fills the multiplication boxes but leaves the top blanks empty, give 2 marks. If the student correctly identifies only one of the numbers from the problem, or attempts to add $(5+10)$ instead of using multiplication/equal groups, give 1 mark. Give 0 marks if the problem is not attempted by the student.</p>

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Self Assessment Model Paper 3 (2025-26)

Maths - Grade 3

Q. No.	Correct Answer/Rubric
1	B
2	C
3	B
4	C
5	A
6	B
7	D
8	C
9	B
10	D
11	D
12	D
13	B
14	D
15	C
16	<p>If the student writes all the correct values of Dividend, Divisor, Quotient, Remainder and the division is solved accurately, give 2 marks.</p> <p>If the student correctly identifies the Dividend and Divisor, but makes a calculation error in the Quotient or Remainder give 1 mark.</p> <p>If the student cannot identify the parts of the division or provides incorrect values for all fields 0 marks.</p>
17	<p>If the student matches as a - ii, b - iii, c - i, d - iv, correctly give 2 marks.</p> <p>If the student matches any two correctly, give 1 mark.</p> <p>If the student does not match any one correctly, give 0 marks.</p>
18	<p>If the student identifies that 1 week = 7 days and correctly sets up the division ($32 \div 7$), correctly calculates the quotient (4) and the remainder (4) without errors, clearly labels the answer as 4 weeks and 4 days, and shows all work (long division or grouping) clearly and logically, give 4 marks.</p> <p>If the student identifies 7 days in a week and chooses division, but the setup has a minor error, calculates the quotient correctly (4) but makes a small error in the remainder, Gives the correct numbers (4 and 4) but does not label which is weeks/days, Shows work, but it is slightly disorganized or missing a step give 3 marks.</p> <p>If the student knows to use 7 but is unsure of the mathematical operation (e.g., uses repeated addition), Attempts division but gets both quotient and remainder wrong, provides only one part of the answer (e.g., "4 weeks"), shows very little work; mostly just the answer, give 2 marks.</p> <p>If the student recognises the number 32 but does not know how to relate it to weeks, Significant errors in basic calculation or subtraction, provides a number with no context or relation to the problem, No work shown; final answer only give 1 mark.</p> <p>If the student does not attempt the problem 0 marks.</p>
19	<p>If the student identifies and writes (a) Even Numbers (సరి సంఖ్యలు): 36, 74, 98, 72, 18, 10, (b) Odd Numbers (బేసి సంఖ్యలు): 27, 91, 99, 71, 53, 61, 47, 1, 21 correctly give 4 marks.</p> <p>If the student mostly identifies numbers correctly but may struggle with 1-digit numbers like "1", One or two numbers from the original list are missed during sorting, give 3 marks.</p> <p>If the student identifies 8–11 numbers out of 15 given numbers that are correctly placed; shows some confusion between categories, give 2 marks.</p> <p>If the student identifies fewer than 8 numbers out of a total 15 numbers are correctly placed or Randomly places numbers without following a clear rule or pattern or only a few numbers are listed, the task is significantly incomplete give 1 mark.</p> <p>If the student does not attempt the problem 0 marks.</p>
20	<p>Demonstrates clear understanding that the total distance is the dividend and step size is the divisor, all blanks for both the frog and rabbit sections are filled in correctly. Both division equations are written perfectly ($24 \div 3 = 8$ and $20 \div 5 = 4$), and if both questions are answered correctly (8 jumps for frog; 4 jumps for rabbit), give 4 marks.</p> <p>If One animal's jumps are correct; the other has a minor counting error, Both equations are set up correctly, but one has a calculation error in the result, Correctly identifies the dividend and divisor but confuses their order in one equation, Most blanks are filled, but one part of the division form is missing, give 3 marks.</p> <p>If only one animal's jumps are correct; the other is missing or incorrect, and one division equation is correctly formatted, give 2marks.</p> <p>If only one animal's jumps are correct and remainig all are incorrect or missing give 1 mark.</p> <p>If student does not attempt the problem 0 marks.</p>

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 3

Q. No.

Correct Answer/Rubric

21

If the student answers as a) 2, b) 5, c) 50, d) 1/2 give 4 marks.
If the student answers any 3 out of 4 correctly, give 3 marks.
If the student answers any 2 out of 4 correctly, give 2 marks.
If the student answers any 1 out of 4 correctly, give 1 marks.
If the student does not attempt the question or answers all incorrectly, give 0 marks.



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Self Assessment Model Paper 3 (2025-26)

Maths - Grade 4

Q. No.	Correct Answer/Rubric
1	D
2	A
3	C
4	B
5	B
6	A
7	C
8	D
9	D
10	C
11	C
12	B
13	A
14	D
15	B
16	Award full marks if the student answers step1: The student writes the correct division expression: $384 \div 6$ (1 mark); Step 2: The student performs the division correctly $384 \div 6 = 64$, and provides the final answer with context: Each room gets 64 chairs. (1 mark)
17	Award full marks if the student answers Step 1: Apply DMAS correctly: The Student correctly performs multiplication and division first: $10 \times 4 = 40$ and $15 \div 3 = 5$ (1 mark); Step 2: Add and subtract the remaining values correctly to reach the final result: $40 + 5 - 7 = 38$ (1 mark)
18	Award full marks if the students Step1: Correctly draws this grid paper in the assessment book let (1 mark) Step 2: Draws a closed square on the grid where each side measures exactly 6 cm. (1 mark) Step 3: Demonstrates counting of the small squares (grid boxes) inside the drawn shape. Correctly identifies the area as 36 square centimeters (or 36 boxes) (2 marks)
19	Award full marks if the student answers Step 1: The student determines that 8 goes into 9 one time. They must write 1 in the quotient and 8 under the 9, showing the subtraction(1 mark) Step 2 : The student brings down the 8 to make 18. They show $18 \div 8 = 2$, Write 2 in the quotient, and writes 16 under 18.(1 mark) Step 3 : The student subtracts to get 2 and brings down the next digit (e.g., 4) to make 24. They show $27 \div 8 = 3$ and Write 3 in the quotient to complete the calculation (1 mark) Step 4 : Writes quotient = 123 and remainder = 3(1 mark)
20	Award full marks if the student answer Step 1: Net of the cuboid : Draws a correct cuboid net consisting of six rectangles. The rectangles are arranged correctly (e.g., in a cross-like layout) so that they can be folded into a closed cuboid with all faces properly attached(2 marks) Step 2 – Net of the cube : Draws a correct cube net consisting of six equal squares. The squares are arranged in a valid configuration (such as a T-shape or cross-shape) that successfully folds into a cube(2 marks)
21	Award full marks if the student answer Step 1: The student accurately counts the frequency of each game (Cricket, Star, Skipping, and Tennikoit) based on the provided data set(1 mark) Step 2 : Tally marks are written correctly, using the standard diagonal slash to group by fives.The total number of tally marks for each game matches the identified frequency(2 marks) Step 3 : The student correctly converts the tally marks into numerical values and records them in the "Number" or "Frequency" column(1 mark).

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 5

Q. No.	Correct Answer/Rubric
1	B
2	C
3	C
4	B
5	B
6	A
7	C
8	A
9	D
10	B
11	D
12	B
13	D
14	D
15	C
16	Award full marks (2 marks) if the student correctly matches all four letters to their corresponding mirror images; each correct match is worth ½ mark.
17	Award full marks if the student writes as a) Vertex is : O (1/2 mark) b) Arms are: OA and OB((1/2 mark)) c) Angle is angle AOB (or) angle BOA(1/2 mark) d) An acute angle(1/2 mark)
18	Award full marks if the student answers a) Acute Angles: 25°, 30°, 45°, 60°, 75°, 80° (2 marks); b) Obtuse Angles: 95°, 100°, 110°, 120°, 160°(2 marks).
19	Award full marks if the student answer step1: Identify the shape and writes formula of perimeter of square is: 4 x side (1 mark); step2: Calculate the distance of 1 round: 50m x 4 = 200 m (1 mark); step3: Calculate the total distance for 2 rounds: 200m x 2 = 400m (1 mark); step4: Total Distance: Raju jogs 400 meters.(1 mark)
20	Award full marks if the student answers 1. 20 (1 mark); 2. Kho kho (1 mark); 3. Tennikoit(2 marks)
21	Award full marks if the student answers 1. July(1 mark); 2. September (1 mark); 3. 6 days(1 mark); 4. 8 days (1 mark).

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Self Assessment Model Paper 3 (2025-26)

Maths - Grade 6

Q. No.	Correct Answer/Rubric
1	A
2	D
3	D
4	B
5	D
6	D
7	B
8	D
9	C
10	D
11	D
12	D
13	A
14	A
15	D
16	Award full marks if the student answer step1: Correctly identifying the operation as addition and finding a common denominator (converting $\frac{1}{2}$ to $\frac{2}{4}$) (1 mark); step2: accurately calculates the sum $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$ to reach the correct final answer(1 mark)
17	Award full marks if the student answer step1: correctly converting the length of the eraser into centimetres (2.7 cm)(1 mark); step2: correctly converting the length of the pencil into centimeters = 13.2 cm(1 mark).
18	Award full marks if the student answer step1: correctly listing all natural numbers from 1 to 10(1,2,3,4,5,6,7,8,9,10)(1 mark); step2: Identifying prime numbers(2,3,5,7) and writing the correct fraction ($\frac{4}{10}$ or $\frac{2}{5}$)(1.5 mark); step3: Identifying divisors of 9(1,3,9) and writing the correct fraction($\frac{3}{10}$)(1.5 mark).
19	Award full marks if the student answer step1:correctly drawing a number line with integers appropriately spaced and labeled, including the relevant range from -4 to 0(1 mark); step2: correctly identifying the starting point at -4 on the number line(1 mark); step3:showing the correct movement of 3 units to the right (towards the positive side); step4:identifying and circling the correct final answer of -1(1 mark)
20	Award full marks if the student answers step 1: Correctly identifying the given values and the required operation (Subtraction: $17/6 - \frac{1}{2}$)(2 marks); step2: Successfully finding a common denominator (converting $\frac{1}{2}$ to $\frac{3}{6}$)(2 marks); step3:Correctly performing the subtraction($17-8/6 = 14/6$)(2 marks); step4: Providing the final answer($7/3$ or $2 \frac{1}{3}$) metres(2 marks) (OR) Award full marks if the student answers step1: Row 2: 3 White + 3 Black $+3 - 3 = 0$ (2 marks); step2: Row 3: 3 White + 6 Black $+3 - 6 = -3$ (2 marks); step3: Row 4: 4 White + 2 Black $+4 - 2 = +2$ (2 marks); step4: Row 5: 4 Black + 5 White $-4 +5 = 1$ (2 marks)

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 7

Q. No.	Correct Answer/Rubric
1	C
2	D
3	A
4	C
5	B
6	A
7	B
8	D
9	C
10	A
11	B
12	C
13	C
14	B
15	C
16	Award full marks if the student answer step1:successfully converting the mixed fraction into an improper fraction($1\frac{5}{7} = \frac{12}{7}$) and finding the common denominator($\frac{2}{3} = \frac{14}{21}$ and $\frac{12}{7} = \frac{36}{21}$)(1 mark); step2: calculating the subtraction ($\frac{14}{21} - \frac{36}{21} = -\frac{22}{21}$ Or $1\frac{1}{21}$ km towards the west)(1 mark)
17	Award full marks if the student answer step1: identifying the formula for the area of a parallelogram Area = b x h and substituting the given values into the equation $24 = 4 \times x$ (1 mark); step2:performing the division correctly to arrive at the final answer of 6 cm(1 mark).
18	Award full marks if the student answer step1: correctly calculating the area of the large circular sheet is $22\frac{7}{7} \times 14 \times 14 = 616 \text{ cm}^2$ (1 mark); step2: correctly calculating the total area of the two small circles are $2 \times 22\frac{7}{7} \times 3.5 \times 3.5 = 77 \text{ cm}^2$ (1 mark); step3: correctly calculating the area of the rectangle is $l \times b = 3 \times 1 = 3 \text{ cm}^2$ (1 mark); step4: correctly subtracting the smaller areas from the large area to find the final remaining area is $616 - (77 + 3) = 616 - 80 = 536 \text{ cm}^2$ (1 mark)
19	Award full marks if the student answer step1: Correctly identifying point P as $\frac{7}{3}$ (1 mark); step2: Correctly identifying point Q as $\frac{8}{3}$ (1 mark); step3: Correctly identifying point R as $-\frac{4}{3}$ (1mark); step4: Correctly identifying point S as $-\frac{5}{3}$ (1 mark)
20	Award full marks if the student answers i)Correct expression for the sum (x + y) and one-half" correctly as $(x + y/2)$ (2 marks); ii) Correct expression for the product(mn),identifying "three times" (3mn), and adding 5 (3mn + 5)(2 marks); (iii) Correct expression for x squared (x^2) and the product (xy), joined by addition ($x^2 + xy$)(2 marks); (iv)Correct identification of the three individual products (ab, bc, ca) and their total sum ($ab + bc + ca$)(2 marks) (OR) Award full marks if the student answers in (i) step1:Substitution: Correctly substituting 10 into the triangle formula and 4 into the diamond formula(1 mark); step2:Calculating Delta(10) = 5.5 and Diamond(4) = 10(1 mark); step3:Reaching the correct final difference of -4.5(2 marks). in (ii) step1: Substitution: Correctly substituting 12 into the triangle formula and 1 into the diamond formula(1 mark); step2:Calculating Delta(12) = 7 and Diamond(1) = 7(1 mark); step3: Reaching the correct final value of 3.5 (after applying coefficients (14 - 10.5)(2 marks)

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 8

Q. No.	Correct Answer/Rubric
1	C
2	B
3	D
4	D
5	B
6	A
7	B
8	C
9	B
10	B
11	B
12	B
13	C
14	Add score
15	D
16	<p>Step1: Expand the expression $a(a^2+a+1) = a^3+a^2+a$ (1Mark)</p> <p>Step2: Subtract 1 and substitute $a=1$ $a^3+a^2+a-1 \rightarrow 1+1+1-1=2$ (1Mark)</p> <ol style="list-style-type: none"> Award 2 marks if student did 2 steps correctly. Award 1mark if student did step1 correctly. Award no marks for any irrelevant or wrong answer.
17	<p>Step1: $5^x = 50$ $5^x + 1 = 5^x \times 5$ (1Mark)</p> <p>Step2: $5^x + 1 = 50 \times 5$ $5^x + 1 = 250$ (1Mark)</p> <ol style="list-style-type: none"> Award 2 marks if student did 2 steps correctly. Award 1 mark if student did step1 correctly. Award no marks for any irrelevant or wrong answer.
18	<p>Step1: Total Surface Area of cuboid Substitute values: $=2(80 \times 30 + 30 \times 40 + 80 \times 40)$(1mark)</p> <p>Step2: $=2(2400 + 1200 + 3200)=2(6800)=13600\text{cm}^2$ (1mark)</p> <p>Step3: Top face area: $=l \times b=80 \times 30=2400\text{cm}^2$ (1mark)</p> <p>Step4: Area of coloured paper: $=13600 - 2400=11200 \text{ cm}^2$ (1mark)</p> <ol style="list-style-type: none"> Award 4 marks if student did four steps correctly. Award 3 marks if student did three steps correctly. Award 2 marks if student did two steps correctly. Award one mark if student did 1 step correctly. Award no marks if student did all steps incorrectly or for any irrelevant answer.
19	<p>Step1: Thickness of 5 books = $5 \times 20=100$ mm (1 mark)</p> <p>Step2: Thickness of 5 paper sheets = $5 \times 0.016 = 0.08$ mm (1 mark)</p> <p>Step3: Total thickness: $=100 + 0.08 = 100.08$ mm (2marks)</p> <ol style="list-style-type: none"> Award 4 marks if student did three steps correctly. Award 3 marks if student did two steps correctly and 3 rd step partially correct. Award 2 marks if student did two steps correctly. Award one mark if student did 1 step correctly. Award no marks if student did all steps incorrectly or for any irrelevant answer.

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 8

Q. No.	Correct Answer/Rubric
20	<p>A) (i) Step1: $= (a + b)(a - b) + (b + c)(b - c) + (c + a)(c - a)$ Uses identity $(x+y)(x-y) = x^2 - y^2$ (1 mark) Step2: $= (a^2 - b^2) + (b^2 - c^2) + (c^2 - a^2)$ (1 mark) Step3: $= a^2 - b^2 + b^2 - c^2 + c^2 - a^2$ (1 mark) Step4: $= 0$ (1 mark)</p> <ol style="list-style-type: none"> Award 4 marks if student did four steps correctly. Award 3 marks if student did three steps correctly. Award 2 marks if student did two steps correctly. Award one mark if student did 1 step correctly. Award no marks if student did all steps incorrectly or for any irrelevant answer. <p>(ii) Step1: Using identity $(a+b)(a-b) = a^2 - b^2$ (1 mark) Step2: $= (x+y)^2 - z^2$ (1 mark) Step3: Correct expansion of $(x+y)^2$ (1 mark) Step 4 : $= x^2 + 2xy + y^2 - z^2$ (1 mark) Step 4 : $= x^2 + 2xy + y^2 - z^2$ (1 mark)</p> <ol style="list-style-type: none"> Award 4 marks if student did four steps correctly. Award 3 marks if student did three steps correctly. Award 2 marks if student did two steps correctly. Award one mark if student did 1 step correctly. Award no marks if student did all steps incorrectly or for any irrelevant answer. <p>B) Curved surface area of one pillar = $2\pi rh$ $= 2 \times 22/7 \times (28/100) \times 4$ (radius 28 cm = 28/100 m) $= 7.04 \text{ m}^2$</p> <p>CSA of 24 pillars: $= 7.04 \times 24$ $= 168.96 \text{ m}^2$ Cost = 16896×8 $= ₹ 1351.68$</p> <p>Writes CSA formula $2\pi rh$ (1 mark) Substitutes values correctly (1 mark) Finds CSA of one pillar (1 mark) Finds CSA of 24 pillars (1 mark) Multiplies by rate ₹8 (1 mark) Correct unit usage (1 mark) Correct arithmetic simplification (1 mark) Final correct answer ₹1351.68 (1 mark) Award no marks for irrelevant answers.</p>

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 9

Q. No.	Correct Answer/Rubric
1	B
2	B
3	B
4	C
5	B
6	D
7	B
8	D
9	A
10	B
11	B
12	A
13	A
14	C
15	C
16	<p>Step1: Given $\triangle ABC$ and $\triangle DBC$ are isosceles triangles on the same base BC. $AB = AC$ (Given, $\triangle ABC$ is isosceles) $\therefore \angle ABC = \angle ACB$ (½ mark)</p> <p>Step2: $DB = DC$ (Given, $\triangle DBC$ is isosceles) $\therefore \angle DBC = \angle DCB$ (½ mark)</p> <p>Step3: $\angle ABD = \angle ABC + \angle DBC$ $\angle ACD = \angle ACB + \angle DCB$ (½ mark)</p> <p>Step4: Substituting equal angles: $\angle ABD = \angle ACD$ (½ mark) Hence proved.</p> <p>1. Award 2 marks if student did four steps correctly. 2. Award 1.5 marks if student did three steps correctly. 3. Award 1 mark if student did two steps correctly. 4. Award 0.5 mark if student did 1 step correctly. 5. Award no marks if student did all steps incorrectly or for any irrelevant answer.</p>
17	<p>Step1 : Given: $\angle ABC = 69^\circ, \angle ACB = 31^\circ$ In $\triangle ABC$: $\angle BAC = 180^\circ - (69^\circ + 31^\circ) = 80^\circ$ (1 mark)</p> <p>Step2: Angles in the same segment of a circle are equal. $\angle BDC = \angle BAC = 80^\circ$ (1 mark) $\angle BDC = 80^\circ$</p> <p>1. Award 2 marks if student did 2 steps correctly. 2. Award 1 mark if student did step1 correctly. 3. Award no marks for any irrelevant or wrong answer.</p>
18	<p>Step1: Given: ABCD is a quadrilateral. P, Q, R, S are the midpoints of AB, BC, CD and DA respectively. AC is the diagonal. (1 mark)</p> <p>Step2 : (i) To show: $SR \parallel AC$ and $SR = \frac{1}{2} AC$ In $\triangle ADC$, S is midpoint of AD and R is midpoint of DC. By Mid-point Theorem, $SR \parallel AC$ and $SR = \frac{1}{2} AC$ (1 mark)</p> <p>Step3: In $\triangle ABC$, P is midpoint of AB and Q is midpoint of BC. By Mid-point Theorem, $PQ \parallel AC$ and $PQ = \frac{1}{2} AC$ From (i) and (ii): $PQ = SR$ (1 mark)</p> <p>Step4: (iii) To show: PQRS is a Parallelogram From (i) and (ii): $PQ \parallel SR$ and $PQ = SR$ A quadrilateral in which one pair of opposite sides are equal and parallel is a parallelogram. \therefore PQRS is a parallelogram. (1 mark)</p> <p>1. Award 4 marks if student did four steps correctly. 2. Award 3 marks if student did three steps correctly. 3. Award 2 marks if student did two steps correctly. 4. Award one mark if student did 1 step correctly. 5. Award no marks if student did all steps incorrectly or for any irrelevant answer.</p>

Self Assessment Model Paper 3 (2025-26)

Maths - Grade 9

Q. No.	Correct Answer/Rubric
19	<p>Step1: Given: ABCD is a parallelogram and also cyclic (its vertices lie on a circle). To Prove: ABCD is a rectangle. In a parallelogram, opposite angles are equal: $\angle A = \angle C$ (1 mark)</p> <p>Step2: In a cyclic quadrilateral, opposite angles are supplementary: $\angle A + \angle C = 180^\circ$ (1 mark)</p> <p>Step 3: Substituting $\angle A = \angle C$: $\angle A + \angle A = 180^\circ$ $2\angle A = 180^\circ$ $\angle A = 90^\circ$ (1 mark)</p> <p>Step 4: So, each angle of the parallelogram is 90°. Hence, ABCD is a rectangle. (1 marks)</p> <p>Conclusion: (A cyclic parallelogram is a rectangle.)</p> <p>1. Award 4 marks if student did four steps correctly. 2. Award 3 marks if student did three steps correctly. 3. Award 2 marks if student did two steps correctly. 4. Award one mark if student did 1 step correctly. 5. Award no marks if student did all steps incorrectly or for any irrelevant answer.</p>
20	<p>A) Step1: Given : $\triangle ABC$ is right-angled at C. M is the midpoint of hypotenuse AB. A line through M parallel to BC meets AC at D. (1 mark)</p> <p>Step2: (i) To prove: D is midpoint of AC In $\triangle ABC$, M is midpoint of AB. $MD \parallel BC$ (Given) (1 mark)</p> <p>Step3: By Mid-point Theorem, a line through midpoint of one side parallel to another side bisects the third side. \therefore D is midpoint of AC. (1 marks)</p> <p>Step4: (ii) To prove: $MD \perp AC$ Since $\triangle ABC$ is right-angled at C, $BC \perp AC$ (Given) (1 mark)</p> <p>Step5: Given $MD \parallel BC$ $\therefore MD \perp AC$ (1 marks)</p> <p>Step6: (iii) To prove: $CM = MA = \frac{1}{2} AB$ In a right-angled triangle, the midpoint of hypotenuse is equidistant from all three vertices. $CM = MA = MB$ (1 mark)</p> <p>Step7: Since M is midpoint of AB, $MB = \frac{1}{2} AB$ (1 mark)</p> <p>Step8: $\Rightarrow CM = MA = \frac{1}{2} AB$ (1 mark) Hence Proved.</p> <p>B) Step1: Given: ABCD is a quadrilateral such that $AD = BC$ and $\angle DAB = \angle CBA$. (1 mark)</p> <p>Step2: (i) To prove: $\triangle ABD \cong \triangle BAC$ Consider $\triangle ABD$ and $\triangle BAC$. $AD = BC$ (Given) $AB = AB$ (Common side) $\angle DAB = \angle CBA$ (Given) (2 mark)</p> <p>Therefore, $\triangle ABD \cong \triangle BAC$ (By SAS Congruence)" (1 mark)</p> <p>Step3: (ii) To prove: $BD = AC$ Corresponding parts of congruent triangles are equal (CPCT). $BD = AC$ (2 marks)</p> <p>Step4: (iii) To prove: $\angle ABD = \angle BAC$ Again, by CPCT: $\angle ABD = \angle BAC$ (2 marks) Hence proved.</p>