**Math Grade 6**

**Template for Essay Type Item**

**Subject: Mathematics**

**Domain: C-**Measurement

**Grade: VI**

**Unit 9: Mensuration**

**Type of Assessment: Formative**

[SLO: M-06-C-01] Calculate the area of:

i-a path (inside or outside) ii-a rectangle or square,

iii-parallelogram, iv- triangle and v-trapezium.

4

2

2

5

5

8

3

3

Type of Task: Extended response

Level of SLO: Application

Task: Find the perimeter and area of adjoining figure.

All measurements are in centimteres.

Maximum Marks: 4

Level of Item: Comprehension

**Expected Response:** **Skill Observed Score**

Perimeter of figure = sum of measures of lengths of

 boundary

 = 8 + 5 + 2 + 3 + 4 + 3 + 2 + 5

 = 32cm

Area = area of small rectangle + area of big

 rectangle

 = 4 × 3 + 8 × 5

 = 12 + 40

 = 52cm2

Finding perimeter 02

 Finding area 02

**Name and Signature of Developer**

1. Dr Khalid Mahmood
2. Mr. Sardar Habib

**Reviewer Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and Signature of Reviewer**

**Template for Essay Type Item**

**Subject: Mathematics**

**Domain: C-**Measurement

**Grade: VI**

**Unit 9: Mensuration**

**Type of Assessment: Formative**

[SLO: M-06-C-01] Calculate the area of:

i-a path (inside or outside) ii-a rectangle or square,

iii-parallelogram, iv- triangle and v-trapezium.

Type of Task: Extended response

Level of SLO: Application

Task: A lawn is a parallelogram shaped. Its base and altitude are respectively 8m and 7.5m long. Find the cost of planting grass @ Rs. 100 per square meter.

Maximum Marks: 5

Level of Item: Application

**Expected Response:** **Skill Observed Score**

 Writing formula 01

Base = 8m, altitude = 7.5m

Area of parallelogram = 

 = 

 = 60m2

Cost of planting grass @ Rs.100 per m2

= 60 × 100

= Rs.6000

Finding area 02

 Finding cost 02

**Name and Signature of Developer**

1. Dr Khalid Mahmood
2. Mr. Sardar Habib

**Reviewer Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and Signature of Reviewer**

**Template for Essay Type Item**

**Subject: Mathematics**

**Domain: C-**Measurement

**Grade: VI**

**Unit 9: Mensuration**

**Type of Assessment: Formative**

[SLO: M-06-C-01] Calculate the area of:

i-a path (inside or outside) ii-a rectangle or square,

iii-parallelogram, iv- triangle and v-trapezium.

Type of Task: Extended response

Level of SLO: Application

Task: Area of trapezium is 2400cm2. One of parallel sides is 50cm long. If the distance between parallel sides is 60cm, find the length of other parallel side.

Maximum Marks: 5

Level of Item: Comprehension

**Expected Response:** **Skill Observed Score**

 Writing data 01

Area = 2400cm2, One parallel side = 50m,

Distance between parallel sides = 60cm

Let the length of second parallel side = *x* cm

Area of trapezium

 = 

 2400 = 

 2400 = 

 80 = 

 *x* = 30cm

Writing formula 01

Finding side 03

Therefore, length of second parallel side = 30cm

**Name and Signature of Developer**

1. Dr Khalid Mahmood
2. Mr. Sardar Habib

**Reviewer Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and Signature of Reviewer**

**Template for Essay Type Item**

**Subject: Mathematics**

**Domain: C-**Measurement

**Grade: VI**

**Unit 9: Mensuration**

**Type of Assessment: Formative**

[SLO: M-06-C-01] Calculate the area of:

i- a path (inside or outside) ii-a rectangle or square,

iii- parallelogram, iv- triangle and v-trapezium.

Type of Task: Extended response

Level of SLO: Application

Task: Find the area of triangle given in adjoining figure.

6cm

10cm

8cm

Also find the area of parallelogram constructed on the base

of triangle with same altitude..

Maximum Marks: 5

Level of Item: Comprehension

**Expected Response:** **Skill Observed Score**

 Writing data 01

Base of triangle = 8cm, altitude = 6cm

Area of triangle = 

 =

 = 24cm2

Area of parallelogram constructed on the base of triangle = 2×24 = 48cm2

Writing formula 01

Finding area 03

**Name and Signature of Developer**

1. Dr Khalid Mahmood
2. Mr. Sardar Habib

**Reviewer Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and Signature of Reviewer**

**Template for Essay Type Item**

**Subject: Mathematics**

**Domain: C-**Measurement

**Grade: VI**

**Unit 9: Mensuration**

**Type of Assessment: Summative**

[SLO: M-06-C-02] Solve real life word problems involving perimeter and area of floor.

Type of Task: Extended response

Level of SLO: Application

Task: Perimeter of a square shaped room is 16m. Find length of wall of room and its area. Also find cost of flooring @ Rs. 500 per m2.

Maximum Marks: 5

Level of Item: Application

**Expected Response:** **Skill Observed Score**

 Writing formula 01

Perimeter of room = 16m

Length of wall = 

 = = 4m

Area of floor = Length × Length

 = 4 × 4 = 16m2

Cost of flooring @ Rs. 500 per m2 = 16 × 500

 = Rs.8000

Finding length of wall 01

Finding area 02

 Finding cost 01

**Name and Signature of Developer**

1. Dr Khalid Mahmood
2. Mr. Sardar Habib

**Reviewer Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and Signature of Reviewer**

**Template for Multiple Choice Item**

**Subject: Mathematics**

**Domain: C-**Measurement

**Grade: VI**

**Unit 9: Mensuration**

**Type of Assessment: Summative**

[SLO: M-06-C-03] Calculate the surface area and volume of cube and cuboids.

Type of Task: MCQ

Level of SLO: Knowledge

Task: Length of side of a cube is 10cm. What is value of its surface area?

Maximum Marks (01)

**Options**

**A) 40**

**B) 100**

**C) 120**

**D) 600**

**Answer: D**

**Reason for Choosing Distracter:** Some students consider cube as square. Some mix area with perimeter.

**Name and Signature of Developer**

1. Dr Khalid Mahmood
2. Mr. Sardar Habib

**Reviewer Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and Signature of Reviewer**

**Template for Essay Type Item**

**Subject: Mathematics**

**Domain: C-**Measurement

**Grade: VI**

**Unit 9: Mensuration**

**Type of Assessment: Summative**

[SLO: M-06-C-04] Solve real life word problems involving the surface area and volume of cubes and cuboids.

Type of Task: Extended response

Level of SLO: Application

Task: Area of floor of a hall of school is 50m2. Its height is 6m. How many students can sit in the hall if 2 students covers 1m3.

Maximum Marks: 5

Level of Item: Comprehension

**Expected Response:** **Skill Observed Score**

 Writing data 01

Area of floor of hall = 50m2

Height of hall = 6m

Capacity of hall = area × height

 = 50 × 6

 = 300m3

2 student occupies space = 1m3

Total number of students = 2 × 300

 = 600

Writing formula 01

Finding volume 01

 Finding no of students 02

**Name and Signature of Developer**

1. Dr Khalid Mahmood
2. Mr. Sardar Habib

**Reviewer Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name and Signature of Reviewer**