Question Paper

Subject: Mathematics

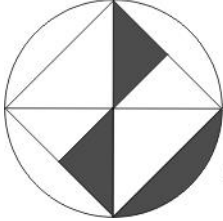**Grade**: 8th

Set 2

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
1	**1_2 Mathematics 6896**	Mensuration	Bablu has three sticks of lengths 3, 4 and 5 cm. Ramesh has three sticks of lengths 3, 5 and 9 cm. How many triangles can Bablu and Ramesh make with their sticks?		A

Answers option			
Option A	Option B	Option C	Option D
Bablu: 1, Ramesh: 0	Bablu: 2, Ramesh: 1	Bablu: 1, Ramesh: 1	Bablu: 0, Ramesh: 2

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2	**1_2** **Mathematics** **6898**	Mensuration	The figure below is called a network. It is made up of links and nodes. The aim is to start from a node and complete a full route of the links without repeating any link (though a node may be repeated.) Is it possible to do this?		C

Answers option			
Option A	Option B	Option C	Option D
It is possible starting from any node.	It is possible only if we start from nodes 1 or 2	It is possible only if we start from nodes 3 or 4	It is not possible.

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
3	**1_2 Mathematics 6899**	Mensuration	Sukhia, Babu and Ram are 3 farmers each having a small plot of land. Two of them have rectangular plots, and one has a square plot. Some more facts about their plots are: Who has the square plot?	<table><tr><td></td><td>Perimeter of plot (in metres)</td><td>Area of plot (in square metres)</td></tr><tr><td>Sukhia</td><td>100</td><td>600</td></tr><tr><td>Babu</td><td>120</td><td>900</td></tr><tr><td>Datta Ram</td><td>140</td><td>1200</td></tr></table>	B

Answers option			
Option A	Option B	Option C	Option D
Sukhia	Babu	Ram	None of them

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
4	1_2 Mathematics 6904	Mensuration	Consider the two figures given below. Which of the following is true about their areas and perimeters?		B

Answers option			
Option A	Option B	Option C	Option D
The areas are the same, perimeters are different.	The areas are different, perimeters are the same.	The areas and perimeters are both different.	The areas and perimeters are both the same.

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5	**1_2** **Mathematics** **6908**	Mensuration	What is the area of the shaded portion if the area of the circle is 56 cm^2?	Area of the circle = 56 cm^2	B

Answers option			
Option A	Option B	Option C	Option D
12 cm^2	14 cm^2	14. 8 cm^2	18. 5 cm^2

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
6	**1_2** **Mathematics** **6909**	Mensuration	In the given figure one square of side 'a' cm and 2 squares of side 'b' cm each are inside a larger square as shown. What will be the area (in cm^2) of the shaded portion?		A

Answers option			
Option A	Option B	Option C	Option D
$2\,ab - b^2$	$a^2 + 2b^2$	$a^2 - b^2$	$a^2 + b^2$

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
7	1_2 Mathematics 6910	Mensuration	What is the length of the longest stick that can be packed in the box of the dimensions shown below?		C

Answers option			
Option A	Option B	Option C	Option D
90 cm	70 cm	$\sqrt{2900}$	$\sqrt{2400}$

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8	**1_2** **Mathematics 6911**	Mensuration	100 centimetres (cm) = 10 decimetres (dm) = 1 metre (m) 1 cm x 1 cm x 1 cm = 1 cm^3 = 1 cc (cc is short for <u>cubic centimetre,</u> and is a unit of volume) 1 litre is defined as 1 dm^3 How many cc is one 1 millilitre?		A

Answers option			
Option A	Option B	Option C	Option D
1 cc	10 cc	100 cc	1000 cc
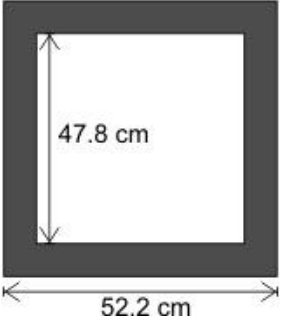
S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
9	**1_2** **Mathematics** **6912**	Mensuration	A man completes the distance between Delhi and Agra travelling at exactly 40 kilometres per hour for half the distance, at 60 kilometres per hour for the remaining half. What is his average speed for the whole journey?		C

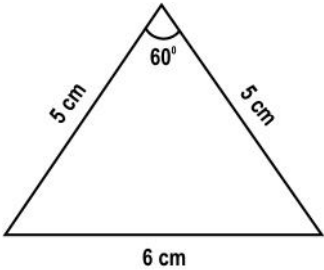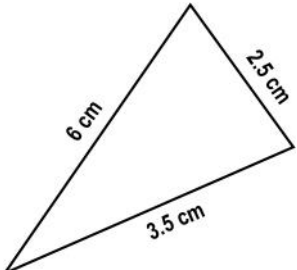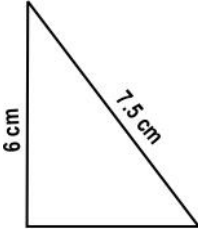| Answers option			
Option A	Option B	Option C	Option D
50 kilometres per hour	24 kilometres per hour	48 kilometres per hour	Cannot be calculated.

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
10	**1_2 Mathematics 6914**	Mensuration	Three points are marked as shown on three edges of a wooden cube and the corner is cut off along the plane passing through these points. What will be the sum of the lengths of the edges (in cm) of the resulting pyramid?		D

Answers option			
Option A	Option B	Option C	Option D
10	$6+\sqrt{8}$	15	$6+3\sqrt{8}$

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11	**1_2** **Mathematics** **6919**	Mensuration	In the following figure PR ll AC, QP ll AB and RQ ll BC. If the perimeter of ABC is 24 cm, the perimeter of PQR will be		C

Answers option			
Option A	Option B	Option C	Option D
6 cm	8 cm	12 cm	16 cm

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
12	**1_2** **Mathematics** **6920**	Mensuration	The solid shown here is made up of unit cubes of side 'a' cm. Black squares of side 'b' cm are painted <u>on the front and back faces</u> of each unit as shown. The remaining area of the exposed part of the solid (in cm^2) is	Square of side 'b'	D

Answers option			
Option A	Option B	Option C	Option D
$8a^2 - 3b^2$	$6a^2 - 3b^2$	$8a^2 - 6b^2$	$14a^2 - 6b^2$

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
13	**1_2** **Mathematics** **6924**	Mensuration	The height of triangle PQR is double the height of triangle ABC, while the base of triangle ABC is double the base of triangle PQR. The ratio of the areas of triangles ABC and PQR will be		A

Answers option			
Option A	Option B	Option C	Option D
01:01	01:02	02:01	02:03

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
14	**1_2** **Mathematics 6926**	Mensuration	Which of the following is NOT a correct way of finding the area of the <u>square</u> frame shown below.		C

Answers option			
Option A	Option B	Option C	Option D
$52.2^2 - 47.8^2$	2 x {(52.2 x 2.2) + (47.8 x 2.2)}	52.2 x 4.4 x 2 + 47.8 x 4.4 x 2	100 x (52.2 - 47.8)

S.N	Folder Number & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)
15		Mensuration	The measurements of ONLY ONE of the triangles shown below can be correct. Which one is it? (REMEMBER, the figures are NOT to scale)		C
	2_10 Mathematics 5848				

Answers option			
Option A	Option B	Option C	Option D

Option A: Triangle with 60° angle at top, sides 5 cm and 5 cm, base 6 cm. Labeled **A**

Option B: Triangle with sides 6 cm, 2.5 cm, and 3.5 cm. Labeled **B**

Option C: Right triangle with sides 6 cm, 7.5 cm, base 4.5 cm. Labeled **C**

Option D: Triangle with 100° angle at top, 55° and 35° base angles. Labeled **D**