

EMBOCS, NAWALPARASI
SPECIFICATION GRID-2080
First term Exam-2080

Class:6

Subject: Mathematics

Time: 2 hours

F:M-50

P:M-20

S.N	Chapters	Types of questions			Total
		1 mark	2 marks	3 marks	
1	Set	1	1	1	6
2	i) Number system ii) Fundamental operation	2	2	1	9
3	Algebra:Upto10.4(constant,variable,expressions,evaluation of algebraic term)	1	3	1	10
4	Geometry: Angle up to Ex no. 14.2	1	1	1	6
5	Geometry: point and line	1	1	-	3
6	Geometry: Triangles up to 15.3(types of triangle,sum of triangle)	1	1	1	6
7	Geometry: Construction using protractor	-	1	-	2
8	Perimeter, Area and volume	1	1	1	6
9	Statistics (collection of data)	-	1	-	2
	Total				50

EMBOCS, NAWALPARASI
Model questions Paper
First Term Exam-2080

Class:6

Sub: Mathematics

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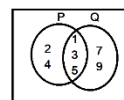
F:M-50

P:M-20

Attempt all the questions.

- Q.1 a) Define set with an example. 1
b) Express the given set in listing as well as set builder method. 2
i) $W = \{\text{the whole number less than 6}\}$
c) List the elements of each pair of overlapping sets. Then make a set of common elements in given case.

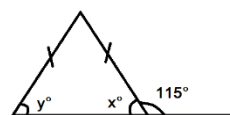
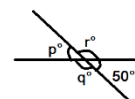
3



- Q.2 a) How many millions are there in 3 crore?

1

- b) Write the greatest and least number of 9 digits. 2
- Q.3 a) Make mathematical expression of: 1
5 is subtracted from the sum of 8 and 7.
- b) Ram bought 6 pencils at Rs. 8 each and he gave a Rs. 50 note to the shopkeeper for the payment. How much change did the shopkeeper return him? 2
- c) Simplify: $55 \div 11 [120 \div 2 \{4 + (10 + 5 - 7)\}]$ 3
- Q.4 a) Define monomial expression with an example. 1
- b) If $x=2$, $y=3$ and $z=4$, Evaluate: $2x + 3y - z$ 2
- c) The volume of a cuboid = $l \times b \times h$. Find the volume of cuboids in cubic cm. 2
- d) Add: $2ab - 3bc + 4$ and $ab + 4bc - 5$ 2
- Q.5 From what expression $x^2 - 5y^2 - 3xy$ must be subtracted to get $2x^2 - y^2 + 4xy$? 3
- Q.6 i) What is the angle between perpendicular line segments? 1
ii) Name the line segments and their points of intersection in the given figure. 2
- Q.7 a) If x° and 60° make a right angle, find the size of x° . 1
b) Find the complement and supplement of 80° . 2
c) Find the sizes of unknown angles in figure below. 3
- Q.8 a) Which triangle has all sides equal? 1
b) Calculate the size of x° and y° in the given 2
- c) The angles of a triangle are in the ratio 2:3:4, find them. 3
- Q.9 Draw 120° and 40° using protractor. 2
- Q.10 a) If the sides of a triangle are x cm, y cm and z cm. Its perimeter=? 1
b) The length of rectangle is 5.5cm and its breadth is 4.5 cm. Calculate its perimeter. 2
c) A squared park is 80 m long. How many meters of wire is required to fence it with 5 rounds? 3
- Q.11 The marks obtained by 20 students of class 6 out of 25 full marks in class test are given below prepare a frequency table marks and present the data.
20, 15, 22, 24, 19, 15, 20, 24, 19, 24
22, 19, 20, 24, 15, 20, 24, 19, 20, 22 2



The End

EMBOCS, NAWALPARASI
SPECIFICATION GRID-2080
Second term Exam-2080

Class:6

Subject: Mathematics

Time: 2 hours

F:M-50

P:M-20

S.N	Chapters	No of questions			Total
		1 mark	2 mark s	3 marks	
1	Set	1	1	-	3
2	Operation on whole numbers	1	3	-	7
3	Properties of whole numbers	2	1	1	7
4	Integers	1	-	-	1
5	Algebra	1	2	1	8
6	Geometry: Point and line	1	-	-	1
7	Geometry: angles	1	1	1	6
8	Geometry: triangle and polygons	1	1	-	3
9	Geometry: Construction of an angle.	-	1	-	2
10	Perimeter, Area & volume	-	2	1	7
11	Fraction up to Ex no. 5.3	-	1	-	2
12	Statistics up to ex. 19.2	-	-	1	3
	Total				50

EMBOCS, NAWALPARASI
Model questions Paper
Second Term Exam-2080

Class:6

Sub: Mathematics

Time: 2 hours

F:M-50

P:M-20

Attempt all the questions.

- Q.1 a) Express the set $V = \{a, e, i, o, u\}$ in descriptive method. 1
b) From the given sets, list the common elements in separate set and show the elements and the common elements of each pair of sets in diagram. 2
- Q.2 a) How many millions are there in 3 crore? 1
b) Find the sum of the greatest and the least numbers of 6-digits. 2
- Q.3 a) Simplify: $35 - \{15 - (19 + 5) \div 3\} + 2$ 2

b) Pratik has 300 rupees. He buys 2 boxes at Rs 60 each and 3 pens at Rs 30 each. How much money is left with him?

2

Q.4 a) Evaluate: $(-1)^3$

1

b) If $x = 2$ and $y = 3$ and $z = 4$, evaluate the expression $\frac{x+2y}{z}$

2

Q.5 a) How many term are there in $mn-5m+7$?

1

b) Simplify: $4x+3y-(3x+y)$

2

c) If $a = (p+q)$, $b = (p-q)$ and $c = q^2-p^2$, show that $ab+c=0$

3

Q.6 a) Define perpendicular line segments.

1

b) Calculate the size of unknown angles.

2

Q.7 a) Find the supplements of 45°

b) Find the size of unknown angles.

3

Q.8 a) Write the possible factor of 16.

1

b) Find the H.C.F of 28 and 35 by division method.

2

Q.9 a) Find the square of 14.

1

b) Find the least number which is exactly divisible by 18 & 24.

2

c) Find the smallest number by which 80 is multiplied to make it a perfect square.

3

Q.10 a) What is the formula to calculate the area of rectangle?

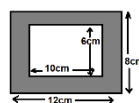
1

b) A square field is 20m long. If you are running around it, how many meters do you travel in one around?

2

Q.11 a) Find the area of the shaded region.

2



b) The students of a school were participated in the rally on 'children's Day' with two banners of equal area. If the first banner is 8 ft long and 3ft wide and the second banner was 6ft long, what was the width of the second banner?

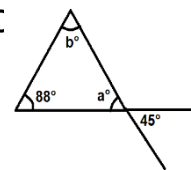
3

Q.12 a) How many acute angles are there in an acute angled triangle?

1

b) Find the sizes of unknown angles of the given triangle.

2



c) If, x°, y° and z° are angle of a triangle, then $x^\circ + y^\circ + z^\circ \dots\dots\dots$ 1

Q.13 The table given below shows the number of different animal kept in a zoo.

Animals	Rabbit	Monkey	Dear	Bird	Tiger
Numbers	20	16	25	40	35

i) Draw a bar graph to show their numbers.

2

ii) Define data.

The End

**EMBOCS, NAWALPARASI
SPECIFICATION GRID-2080
Third Term Exam-2080**

Class:6

Subject: Mathematics

Time: 2 hours

F:M-50

P:M-20

S.N	Chapters	No of questions			Total
		1 mark	2 marks	3 marks	
1	Set	1	1	-	3
2	Operation on whole numbers	1	1	-	3
3	Properties of whole numbers	1	1	-	3
4	Integers	1	-	-	1
5	Fraction	1	-	1	4
6	Unitary method	1	1	-	3
7	Percent	1	1	-	3
8	Algebra	1	1	1	6
9	Equation, In equality and graph	-	2	-	4
10	Geometry: Point & line	1	-	-	1
11	Geometry: Angles	-	2	-	4
12	Geometry: Triangle & polygons	-	1	1	5
13	Geometry: Construction up to ex. 16.2	-	1	-	2
14	Coordinates	1	-	-	1
15	Perimeter, Area & volume	1	2	-	4

16	Statistics up to ex. 19.2	-	-	1	3
	Total				50

EMBOCS, NAWALPARASI
Model questions Paper
Third Term Exam-2080

Class:6

Time: 2 hours

F.M.-

50

Sub: Mathematics

P.M.-

20

Attempt all the questions.

Q.1 a) Write the method of writing sets.

1

b) State with reasons, whether the following pairs of set are equal or equivalent.

2

$A = \{x : x \text{ is an odd number less than } 10\}$

$B = \{0, 1, 2, 3, 4\}$

Q.2 a) Express 2700 in the expanded forms of power 10. 1

b) If a is at hundreds place, b is at tens place and c is at ones place, write the number formed by these digits.

2

Q.3 a) Factorise 12 by factor- tree method.

1

b) Find the cube root of 64.

2

Q.4 Simplify: $(+7) + (-8)$

1

Q.5 a) Add: $\frac{3}{4} + \frac{5}{8}$

1

b) Father earns Rs 20,000 in a month. He spends $\frac{1}{4}$ part of his earning on food and $\frac{2}{5}$ part on the education of his children.

2

i) How much money does he spend?

ii) What is his saving in a month?

Q.6 a) If the unit cost of a book is Rs. 150, find the cost of 6 books. 1

b) The cost of 6 oranges is Rs. 540. How many kilograms of oranges can be purchased for Rs. 720?

2

Q.7 a) Convert 20% into its lowest term.

1

b) There are 360 students in a school. 198 of them are boys. 2

i) Find the percentage of boys.

ii) Find the percentage of girls.

- Q.8 a) Multiply: $3x^2y \times 2xy^3$ 2
 b) Simplify: $a(a-b)-b(a-b)$ (2)
 c) If $a = (p+q)$, $b = (p-q)$ and $c = q^2-p^2$, show that $ab+c=0$. 3
- Q.9 a) Solve: $6x-7=3x+5$ 2
 b) The sum of two numbers is 12. If one of them is 7, find the other number. 2
- Q.10 a) Define line. 1
 b) Calculate the size of unknown angles. 2
- c) Calculate the size of x° , y° and z° . 2
- Q.11 a) a° , $2a^\circ$ and 60° are the angles of a triangle. Find the size of a° and $2a^\circ$. 2
 b) Find the sum of interior angles of a pentagon. 3
- Q.12 a) Construct 150° and bisect it. 2
 b) What is the co-ordinate of origin? 1
- Q.13 a) What is the formula to calculate the perimeter of square. 1
 b) The perimeter of a rectangle is 28cm and its length is 8cm, and its length is 8cm. 2+2
- Q.14 The number of students in the primary level of a school are given below. Draw a bar graph to show the numbers. 3

Class	I	II	III	IV	V
No. of students	35	30	40	25	20

The End

EMBOCS, NAWALPARASI
SPECIFICATION GRID-2080
Annual Exam-2080

Class:6

Subject: Mathematics

Time: 2 hours

F:M-50

P:M-20

S.N	Chapters	No of questions			Total
		1 mark	2 marks	3 marks	
1	Set	1	1	-	3
2	Operation on whole numbers	1	-	-	1
3	Properties of whole numbers	-	2	-	4
4	Integers	1	-	-	1
5	Fraction & decimal	1	2	-	5
6	Unitary method	-	1	-	2
7	Percent	-	1	-	2
8	Profit and loss	-	1	-	1
9	Algebra	1	1	-	3
10	Equation, Inequality and graph	1	1	-	3
11	Coordinates	-	1	-	2
12	Geometry: point and line	-	1	-	2
13	Geometry: Angle	1	-	1	4
14	Geometry: Triangle and polygons	-	2	-	4
15	Geometry: Construction	-	1	-	2
16	Perimeter, Area and volume	-	1	1	5
17	Symmetrical figures, Design of polygons and tessellation	-	1	-	2
18	Statistics	1	1	-	3
	Total				50

EMBOCS, NAWALPARASI
Model questions Paper
Annual Exam-2080

Class:6

Sub: Mathematics

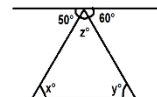
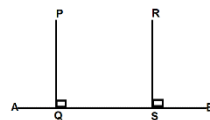
Time: 2 hours

F:M-50

P:M-20

Attempt all the questions.

- Q.1 A teacher asks to list all the factors of 12. Answer the following questions. 1
- a) Express the set in listing method. 1
- b) Is 18 a member of the given set? Give reason. 1
- c) Re-write the set in set-builder form. 1
- Q.2 a) Make the mathematical expression of '4 times the sum of 7 and 2? 1
- b) On the occasion of a sunil's Birthday, he distributed 24 snickers and 36 cadburies equally to his friends. What is the greatest number of his friends? Find. 2
- c) If the product of two identical numbers is 441, find one of the numbers. 2
- Q.3 a) Simplify: $(+7) + (-4)$ 1
- b) If the cost of 1kg of rice is Rs $85\frac{1}{2}$, find the cost of 10kg of rice. 2
- c) Convert the given fractions into decimal and simplify it. 2
- $\frac{105}{100} - \frac{6}{10} + \frac{1}{10}$
- d) Convert 20% into decimal. 2
- Q.4 a) If the cost of 1 dozen of pencils is Rs 120, find the cost of 1 pencil. 2
- b) There are 40 students in class 6. 30% of them are girls.
- i) How many are girls? 1
- ii) How many are boys? 1
- c) Mr. Yadav buys a calculator for Rs 375 and sells it for Rs 450. Find his profit. 2
- Q.5 a) What is the product of the expressions $5x^2$ and $3x^3$? 1
- b) If $x = (a+2)$ and $y = (a-2)$, show that $xy = a^2 - 4$. 2
- Q.6 a) What is the appropriate symbol '< or > or =' in the blanks space of 7
-4? 1
- b) Solve: $\frac{3x-1}{4} = 2$ 2
- Q.7 a) In the given figure, write down the relationship between. 2 2
- i) PQ and AB ii) PQ and Rs
- b) Plot the points A(6,5), B(-2,5), C(-2,-1) and D(2,-1) on a graph paper join the points in order. 2



- Q.8 a) Define obtuse angle with one example. 1
b) Find the size of unknown angles.

3

- Q.9 a) If x° and 30° are the base angles of isosceles triangle, find the value of x°
b) Define circumference of a circle.

1

- c) Find the value of unknown angles of the given polygon 2



- Q.10a) Construct an equilateral triangle $\triangle ABC$ where $AB = 5\text{cm}$. 2
b) Draw a tessellation using the square of some size and colour it. 2

- Q.11 a) The length of a side of square field is 5m. 2

i) Find the perimeter of square field.

ii) Convert the perimeter in centimeter (cm) 2

- Q.12 The table given below shows the number of students enrolled in a school in the academic session 2079 B.S. from class VI to x.

3

Class	VI	VII	VIII	IX	X
No. of students.	30	35	40	25	30

- i) Draw a bar graph to represent the data.
ii) How many total students were enrolled from class VI to Class X?

The End