PROVINCIAL EDUCATION DEPARTMENT

NORTHERN PROVINCE

PLACEMENT EXAMINATION – 2021

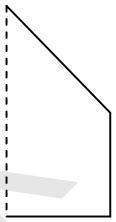
GRADE 7 **MATHEMATICS** **TWO HOURS**

Part–*I*

Answer all Questions.

1) Add. $2.53 + 0.47$

2) Complete the given bilaterally symmetric figure.



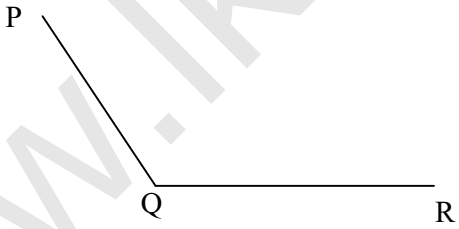
3) Set$A$ ={Digits in the number 3531}
Represent the set A by listing its elements within curly brackets.

4) Simplify. $3 + 8 \div 2 + 1$

5) How many months are there in a year with 30 days.

6) Evaluate the value of $(+8) + (-2)$

7) Measure and write the magnitude of the angle given in the figure by using protractor.

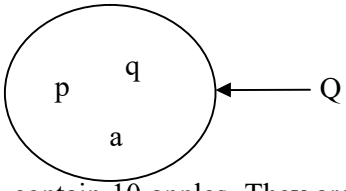


8) Solve. $x + 4 = 20$

9) If the price of a book is y .Find the price of such 5 books.

10) How many symmetric axes does the circle have?

11) Write the elements of the set Q given Venn diagram within curly brackets.



12) There are 4 boxes each contain 10 apples. They are distributed among 8 children equally. Write an expression to show the number of apples obtained by a student.

13) Express 250 days in month and days.

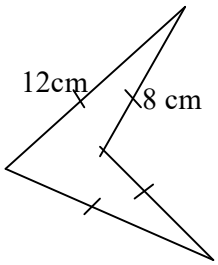
14) Give an example of an angle which is dynamic.

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15) What is the sum of the angle around appoint.

16) Simplify. $3x + 4y + x + 3y$

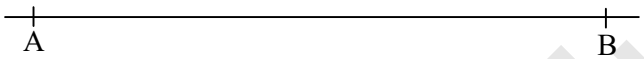
17) Calculate the perimeter of the given figure.



18) Express $\frac{2}{5}$ in decimal number.

19) Is Rhombus a regular polygon? Give the reason.

20) Draw a parallel line to the given straight line.



(20 × 2 = 40Marks)

Part−*II*

Answer the first Question and other four Questions.

1) Price of $50g$ of small milk powder packet is Rs.40.

(i) Write two instruments which are used to measure the mass.

(ii)

a) Which instrument is used to measure the mass of medicinal capsules and chemical substance?

b) Which unit is used to measure the mass of medicinal capsules and chemical substance?

(iii) $a)$How many grams are in $\frac{1}{4}kg$

b) If we need $\frac{1}{4}kg$ of milk powder.

Find the number of packets we should buy? by considering the milk packets mentioned above.

$c)$Calculate the cost for this?

(iv). Fill in the blanks.

$$a)3g\ 250mg = \ldots\ldots\ldots\ldots mg$$

$$b)\ldots\ldots\ldots\ldots g = 7025mg$$

(v) Add

kg	g
25	350
+72	670

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(vi)Subtract

g	mg
350	160
-45	430

$(\mathbf{2+2+6+2+2+2})$

2)In index form2^3

$a.$ (i) Write the base and index.

(ii) Write the reading method of this.

(iii) Write this expanded form.

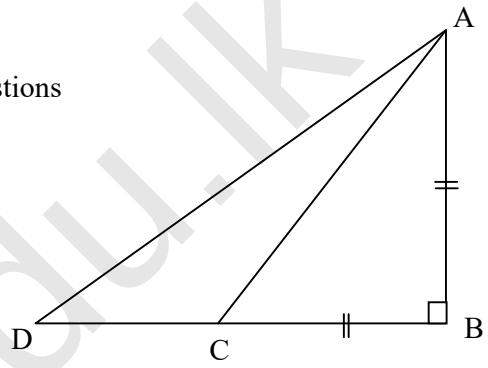
(iv) Evaluate the value of 2^3.

$b.$ $If\ a=2, b=3$ Find the value of the following expressions.

(i) a^2b (ii) $a^3\,b^2$

$(\mathbf{2+2+1+2+4})$

3) a . Observe the given figure well and answer the following questions



(i)Write the names of two right angled triangle.

(ii) Name the type of triangle based on their sides.

(iii)Name a obtuse angled triangle.

b. Observe the given figure.

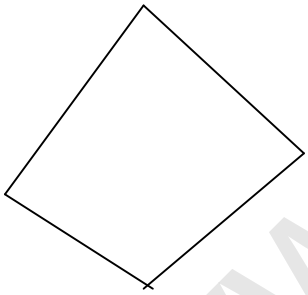


Figure A

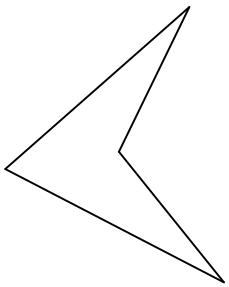


Figure B

(i) ""Figure A is a convex polygon"". Is the statement true? Express the reason.

(ii) Name a concave polygon.

$(\mathbf{4+2+2+3})$

4) 38 $\square$ is a three digit number while writing a digit in the blank cage.

(i) If it is divisible by 3 find the suitable digits for the blank cage?

(ii) If it is divisible by 4 find the suitable digits for the blank cage?

(iii)If it is divisible by both 3 and 4, write that number.

(iv)What is the digital index of this number?

(v) Is this number divisible by 6?

$(3+3+2+2+1)$

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5)Draw a plane figure using straight edge and a setsquare according to the information given below

(i) Draw a straight line.

(ii) Mark the points A and B that AB=8cm.

(iii)Draw a perpendicular line to the straight lineAB,through A by using setsquare, mark D such that AD=5cm.

(iv)Draw line BC that perpendicular to AB through B, such that BC= 5 cm .

(v) Join $Dand\ C$.

(vi)Which type of Quadrilateral is $ABCD$.

$(1 + 2 + 3 + 3 + 1 + 1)$

6)a .

(i) Express 6, 12 and16 product of prime factors.

(ii)

1. Find the H.C.F of 6, 12 and 16.
2. Find the L.C.M of 6, 12 and 16.

b. There are 12 pens and 16 pencils in a box .Each type equally distributed and packaged.

1. What is the maximum number of packages available?
2. Find the number of pencils and pens in a pack?

$(3 + 4 + 4)$

7) Observe the Fractions given in box.

$1\frac{1}{4}$	$\frac{1}{5}$	$\frac{8}{3}$
$\frac{1}{3}$	$\frac{11}{4}$	$2\frac{1}{2}$

(i) Select and write two unit fraction from the given box.

(ii) Write the largest fraction from the fractions which are written by you in question (1.)

(iii)Select and write two mixed numbers.

(iv)Convert the mixed numbers in to improper fraction.

(v) Give an improper fraction.

(vi) Express this in mixed number.

$(\mathbf{2 + 1 + 2 + 2 + 2 + 2})$

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