



Brilliant Public School

Seepat Road Bahatarai, Bilaspur (C.G.)

Improvement Exam – 2017-18

Class - VII

Subject – Mathematics

Time: 2:30 Hours

Date : 02.04.2018

M.M= 80

Monday

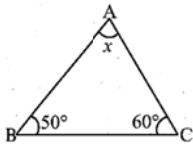
SECTION A

1 X 6 = 6

Q.1 Solve $2 - \frac{3}{5}$

Q.2 Find the mean of the first five whole numbers.

Q.3 Find value of x



Q.4 Give any two real life examples for congruent shapes.

Q.5 Give four rational numbers equivalent to: $\frac{4}{9}$

Q.6 Find the area of the circle of radius 14mm.

SECTION B

2 X 6 = 12

Q.7 The radius of a circular pipe is 10cm. What length of a tape is required to wrap once around the pipe.

Q.8 Add $3mn$, $-5mn$, $8mn$, $-4mn$.

Q.9 Find the value of $(-4) \div \frac{2}{3}$

Q.10 a) Two line segment are congruent if -----

b) Among two congruent angles, one has a measure of 70° ; the measure of the other angle is

Q.11 Determine whether the triangle whose lengths of sides are 3cm, 4cm, 5cm is a right angled triangle.

Q.12 Multiply $\frac{2}{5} \times 5\frac{1}{4}$

SECTION C

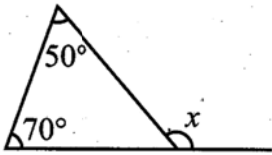
3 X 10 = 30

Q.13 Find the product, using suitable properties $15 \times (-25) \times (-4) \times (-10)$

Q.14 Express in Kg a) 200g b) 4Kg 8g

Q.15 Find the median of the data: 24, 36 ,46 ,17 , 18, 25 ,35

Q.16 Find the value of x



Q.17 List six rational numbers between: - 2 and -1

Q.18 Find the area of a square park whose perimeter is 320m.

Q.19 If $\Delta DEF \cong \Delta BCA$ write the part(s) of ΔBCA that correspond to

- a) $\angle E$ b) $\angle F$ c) EF

Q.20 Simplify combining like terms: $21b - 32 + 7b - 20b$

Q.21 Using laws of exponents, simplify and write the answer in exponential form: $(2^{20} \div 2^{15}) \times 2^3$

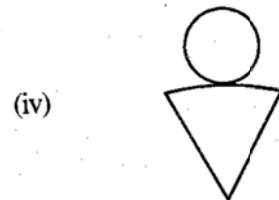
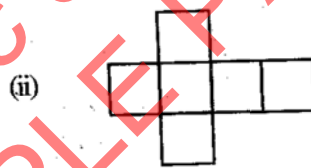
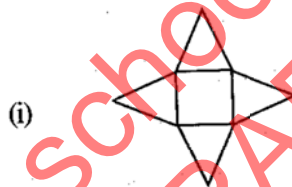
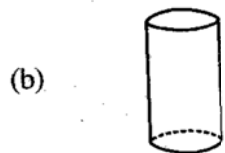
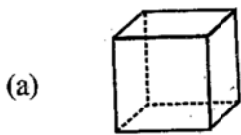
Q.22 What cross section do you get when you give a vertical cut to the following solids?

- a) A brick b) A round apple c) An ice cream cone

SECTION D

(4 X 8 = 32)

Q.23 Match the nets with appropriate solids:



Q.24 Simplify a) $(3^0 + 4^0) \times 5^0$

b) $(-4m)^3$

Q.25 Simplify these expression and their values if $x=3$, $a = -1$

a) $3x - 5 - x + 9$

b) $3a + 5 - 8a + 1$

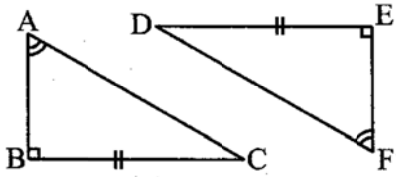
OR

A 3m wide path runs outside and around a rectangular park of length 125m and breadth 65m. Find the area of the path.

Q.26 Write the rational numbers in ascending order: $\frac{-3}{7}, \frac{-3}{2}, \frac{-3}{4}$

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Q.27 Explain, why $\triangle ABC \cong \triangle FED$



Q.28 PQR is a triangle right angled at P. If $PQ = 10\text{cm}$ and $PR = 24\text{cm}$, find QR

Q.29 Consider this data collected from a survey of a colony.

Favourite sport	Cricket	Basketball	Swimming	Hockey	Athletics
watching	1240	470	510	430	250
Participating	620	320	320	250	470

Draw a double bar graph choosing an appropriate scale.

Q.30 Find a) 1.3×100

b) 101.01×0.01

OR

Write down a pair of integers whose a) sum is -7

b) difference is -10

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