CHUMEY HIGHER SECONDARY SCHOOL
CHUMEY: BUMTHANG
FINAL EXAMINATION, 2022

Class: VII (A, B, & C)   **Time: 2 hours**

Subject: Mathematics   **Full marks: 80**

Index Code………………………………………………………………………...

*(The first 15 minutes of the examination is for reading the paper only. You must **Not** start writing during this time)*

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*The paper contains **TWO** sections. SECTION A and SECTION B. All the questions are*

Compulsory.

The intended marks for questions are given in []

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SECTION A [30marks]

Attempt All the questions

Question 1

For each question there are four alternatives: A, B, C and D. Choose the correct alternative and circle it. Do not choose more than ONE alternative.   **[15 x 2=30]**

I.   Without calculating, predict which is greatest.

     A. $3.4 \div 0.2$ C. $12.6 \div 6$

     B. $7.1 \div 0.001$ D. $10.3 \div 5$

II. The power of $9 \times 9 \times 9 \times 9 \times 9$ is

     A. 9^5 C. 9^4

     B. 9^3 D. 9^2

III. $\dfrac{4}{10}$ is ………. 0.4

     A. Less than   C. Equal to

     B. Greater than   D. Close to

IV. Penjor ate $\frac{1}{3}$ of cake. Namgay ate $\frac{3}{8}$ of the same cake. How much of cake was eaten together?

A. $\frac{1}{3}$

C. $\frac{4}{11}$

B. $\frac{3}{8}$

D. $\frac{17}{24}$

V. Which is a better price per apple for the buyer?
A. 9 apples for Nu.90
B. 12 apples for Nu.36
C. 1 apple for Nu. 15
D. 2 apples for Nu. 40

VI. The ratio of boys to girls in a class is 4: 3. If there are 24 boys in the class, how many girls are there?
A. 32 girls
B. 18 girls
C. 24 girls
D. 19 girls

VII. $\angle A = 30^0$ and $\angle B = 60^0$ in $\triangle ABC$. What is $\angle C$?
A. $\angle C = 60^0$
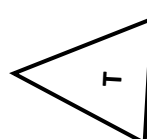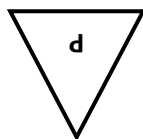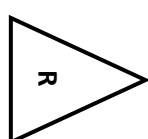B. $\angle C = 30^0$
C. $\angle C = 90^0$
D. $\angle C = 100^0$

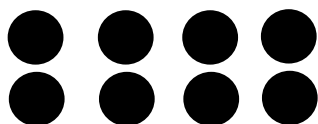VIII. Which shape is the reflection of shape A below?

A. P
B. R
C. T
D. A

IX. Show the multiplication sentence for given array

A. $2 \times 3 = 6$
B. $2 \times 4 = 12$
C. $2 \times -4 = -8$
D. $2 \times -4 = 12$

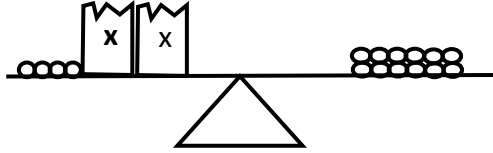X. What is the sum of $-235 + -120$?
A. -355
B. -115
C. $+355$
D. $+115$

XI.   The simplified expression of 4n + 6 is
        A. 2n + 6   C. 4n + 3
        B. 2n + 3   D. 4n + 6

XII.   What equation does this represent?

        A. 2x + 4 = 12   C. 2x – 4 = - 12
        B. 2x – 4 = 12   D. 2x + 4 = 12

XIII.   You toss a coin. What is the probability that you will get Tashi-Ta-gye?
        A. Unlikely   C. Likely
        B. Certain   D. Impossible

XIV.   These are math test scores. 37, 60, 66, 59, 67, 55, 66, 59, 91, 60, 59 and 80. The mode of
        math test is
        A. 59   C. 66
        B. 60   D. 37

XV.   Which is the best survey question to ask to find out about reading habits?
        A. Do you think you should read more?
        B. What do you think about reading?
        C. How many books have you read in the past month?
        D. What books have you read recently?

Section B

(All The Questions Are Compulsory)

Question 2

   a. Order from least to greatest. $1\frac{3}{5}$, $1\frac{3}{8}$, $1\frac{3}{10}$, $1\frac{3}{6}$ [1]
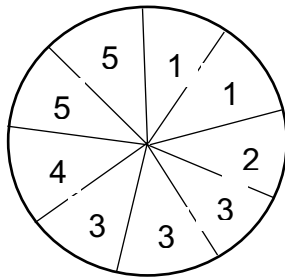
b. Calculate LCM (28, 48) [2]

c. Use base ten models to model 522 as 5 hundreds + 2 tens + 2 0nes. [2]

Question 3

Sonam spins the spinner given below. What is the probability of getting each?

i. Getting number 3 [1]

ii. Getting number greater than 4 [2]

iii. Getting less than 3 [2]

Question 4

Use this set of data: 18, 19, 19, 12, 17, 16, 18, 18, 12 and 16. And calculate the following.
   i. Mean   [2]

   ii. Median   [2]
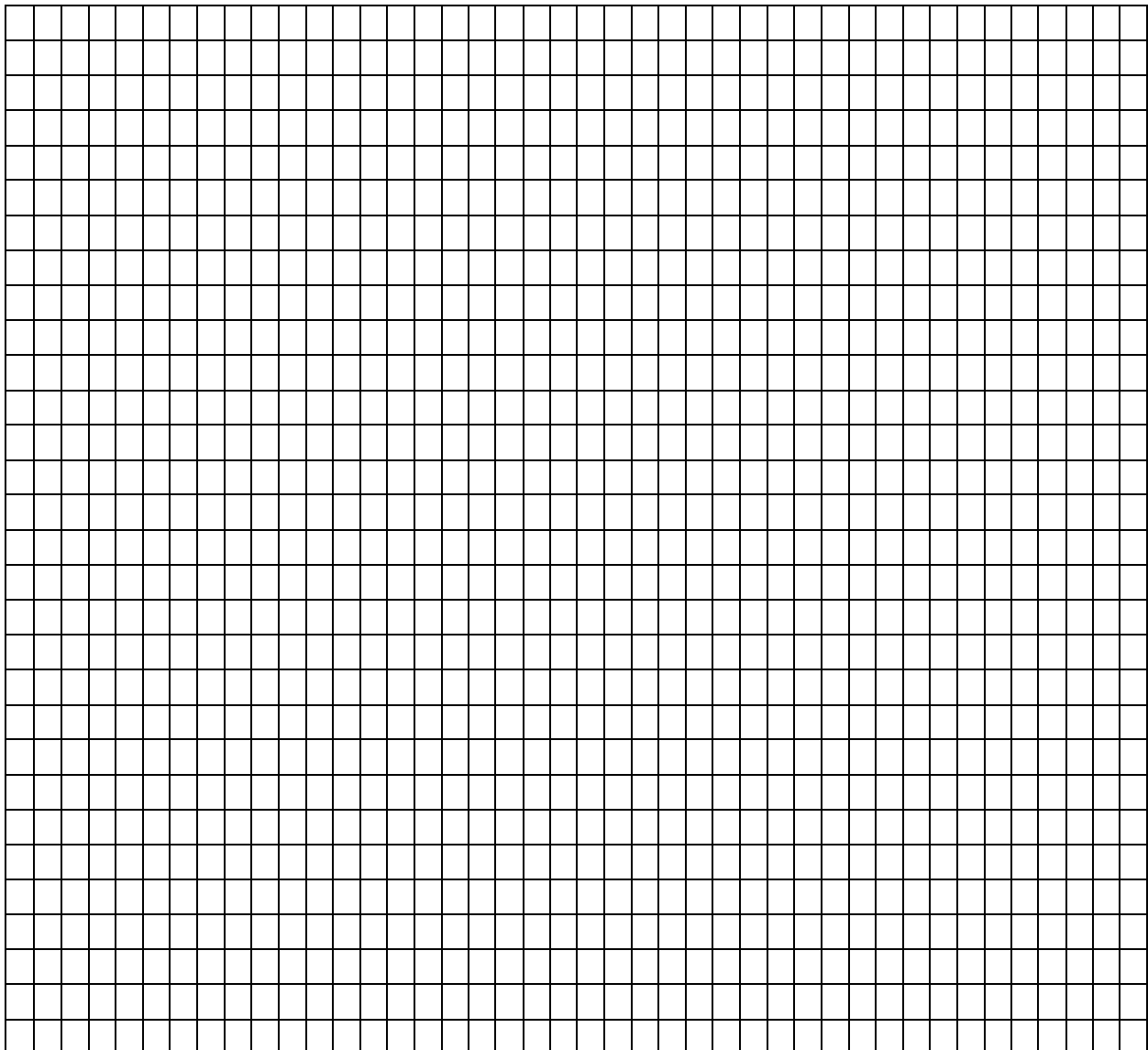
   iii. Mode   [1]

Question 5

a. Solve using inverse operations.
   i. $4k + 29 = 497$ [1]

   ii. $624 - 4t = 276$ [1]

b. Create table of values and draw a graph to represent distance compared to time at a speed of 22km/h. [3]

Distance	Time

Question 6

    a. Draw a number line and mark each temperature on your number line.   [2]

          -10⁰C   +5⁰C   +30⁰C   -30⁰C

    b. Calculate using number line or counters

        i. (-2) + (-3) $[1\frac{1}{2}]$

        ii. -5 + 3 $[1\frac{1}{2}]$

Question 7

    a. Calculate the volume of the rectangular prism having length 12 cm, width 8 cm and height 5 cm.   [2]

b. Calculate the area and circumference of the circle with the radius 4m. [3]

Question 8

    a. An Ema Datshi recipe calls for 10 mL of vegetable oil for 4 servings. How much vegetable oil is needed for each?

        i) 8 servings $[1\frac{1}{2}]$

        ii) How many servings can be made with 25 mL of vegetable oil? $[1\frac{1}{2}]$

    b. It takes the staff 7.2 h to clean all 27 rooms in a hotel. How many hours would it take them to clean 15 rooms? [2]

Question 9

Calculate

i. $\dfrac{1}{4} + \dfrac{3}{10}$ [$2\frac{1}{2}$]

ii. $\dfrac{5}{6} - \dfrac{3}{8}$ [$2\frac{1}{2}$]

Question 10

a. Divide 794 by 3   [2]

b. Calculate using the rules of orders of operations.   [3]
$(5 + 3.1)^2 + 7 \div 0.1 \times 1.5^2 - 3.2$

Question 11

Simplify each.

    i. $(2n + 8) + (10n - 3)$ $[2\frac{1}{2}]$

    ii. $(2n + 8) - (- 3m -3)$ $[2\frac{1}{2}]$