## Dr. A. Q. Khan School \& College, Bahria Town Phase-8, Islamabad MODEL PAPER MATHEMATICS CLASS VI

Date: $\qquad$
Name: $\qquad$
Section: $\qquad$
Invigilator's Signature: $\qquad$

## Section-A (12 Marks)

Q. No 1: Fill the relevant bubble against each question according to curriculum.
(12)

| No | Question | A | B | C | D | A | B | C | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| i. | A number which divides a given number completely, leaving no remainder is called? | Factor | Multiple | HCF | LCM | O | O | O | O |
| ii. | The numbers which have only two different factors are called? | Even <br> Numbers | Odd <br> Numbers | $\begin{aligned} & \text { Prime } \\ & \text { Numbers } \end{aligned}$ | Composite Numbers | O | O | O | O |
| iii. | What is the intersection of the sets $\{1,2,3,4\}$ and $\{3,4,5,6\}$ ? | \{1,2\} | \{3,4\} | \{5,6\} | \{1,2,5,6\} | O | O | O | O |
| iv. | Temperature of Lunar day is $120^{\circ} \mathbf{C}$ and temperature of lunar night is $-160^{\circ} \mathbf{C}$ then the difference in temperatures will be? | $280{ }^{0} \mathrm{C}$ | $-40^{0} \mathrm{C}$ | $-280{ }^{0} \mathrm{C}$ | $40^{0} \mathrm{C}$ | O | O | O | 0 |
| v. | -1000___0 | $\geq$ | $\leq$ | $<$ | $>$ | O | O | O | $\bigcirc$ |
| vi. | Out of Rs.2000, 40\% is spent. The expenditure amount is? | 800 | 1200 | 80 | 120 | O | O | O | 0 |
| vii. | One dozen eggs are bought for Rs.120, then the cost of one egg is: | 12 | 10 | 20 | 15 | O | O | O | 0 |
| viii. | _ is a subset of every set. | Infinite Set | Finite Set | Singleton Set | $\emptyset$ | O | O | O | 0 |
| ix. |  | 4 | 7 | 1 | 0 | $\bigcirc$ | O | O | 0 |
| x. | If $\frac{3}{2} x-7=20$ then the value of $x$ is? | 54 | 18 | 27 | 7 | O | O | O | 0 |
| xi. | Which one is not a simple linear equation? | $7 \mathrm{x}+\mathrm{y}=9$ | $5 y+3=0$ | $4+3 \mathrm{t}=5$ | $6 \mathrm{z}=11$ | $\bigcirc$ | O | O | 0 |
| xii. | A letter used to denote an unknown number is? | Expression | Exponent | Constant | Variable | O | O | O | O |

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Time Allowed: 2:40 Hrs.
Section B,C Total Marks: 48

## Section-B (30 Marks)

Q. 2 Solve the following Questions:
( $10 \times 3=30$ )


| x. | Follow the pattern to complete and redraw the grid on answer sheet: |  |  | 03 | OR | Simplify:$[2 x+(3 x-5 y+7 z)]-2(5 x-3 z)$ | 03 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 |  |  |  |  |  |  |
|  | 23 | 25 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

## Section-C (18 Marks)

Solve the following Questions:
( $6 \times 3=18$ )

| Q. 3 | a) Find prime factors of 256 . <br> b) Find the net charge of 2 positively charged particles and 8 negatively charged particles. | $\begin{gathered} 03 \\ + \\ 03 \end{gathered}$ | OR | a) Find the highest common factor of 56 and 84. <br> b) Find $34+15+(-13)$ | 03 + 03 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q. 4 | a) Find $x: y: z$ and $x: z$ if $\mathrm{x}: \mathrm{y}=\frac{2}{3}: 1$ and $\mathrm{y}: \mathrm{z}=\frac{3}{4}: \frac{1}{2}$ <br> b) Represent the following sets through Venn diagram $\begin{aligned} & \mathrm{U}=\{0,1,2, \ldots, 10\} \\ & \mathrm{A}=\{0,2,4,6,8\} \\ & \mathrm{B}=\{1,2,3,4,6,7,9\} \end{aligned}$ | $\begin{gathered} 03 \\ + \\ 03 \end{gathered}$ | OR | a) Divide 600 in the ratio 2:3:7, what will be the largest and the smallest share? <br> b) Write three proper subsets of the set $\{\mathrm{m}, \mathrm{n}, \mathrm{o}\}$ | $\begin{gathered} 03 \\ + \\ \mathbf{0 3} \end{gathered}$ |
| Q. 5 | a) Simplify the following algebraic expressions : $(4 p-3 q)-5[(2 p-q)+(p+q)]$ <br> b) Alia has 35 Mbs internet data. She used $40 \%$ data during first 15 days. Find the amount of data in Mbs used by her. | $\begin{gathered} 02 \\ + \\ 04 \end{gathered}$ | OR | a) Sohail's father's age is 7 years more than 4 times the Sohail's age. What is the age of Sohail's father? <br> b) a meter $(\mathrm{a}+\mathrm{b}) \text { meter }$ <br> Find Area and Perimeter of the given rectangle. | 04 + 01 + 01 |

