

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

| Time Allowed: 20 Minutes | |
|--------------------------|--------------------------|
| Name: | Section: |
| Date: | Invigilator's Signature: |

Section-A (12 Marks)

| Q. No | Q. No 1: Fill the relevant bubble against each question according to curriculum. | | | | | | | (| | |
|-------|---|----------------|-------------------------|------------------------------|------------------------------|---|---|--------------|---|--|
| No | Statement | A | В | C | D | A | В | \mathbf{C} | D | |
| i. | The symbol ≈means: | Equal to | Approx imately equal to | Not Equal to | Greater and equal to | 0 | 0 | 0 | 0 | |
| ii. | The temperature in the fridge is 5 °C. The temperature in a freezer is -20 °C. How many degrees colder is the freezer | 10 °C | 15 °C | 20 °C | 25 °C | 0 | 0 | 0 | 0 | |
| iii. | Twin primes differ by: | 1 | 2 | 3 | 4 | 0 | 0 | 0 | 0 | |
| iv. | A composite number has: | 1 factor | 2 factors | More than 2 factors | None of these | 0 | 0 | 0 | 0 | |
| v. | Annika can run 2 km in 15 minutes. At this rate, about how long will it take her to run 4 km? | 26 minutes | 30 minutes | 32 minutes | 42 minutes | 0 | 0 | 0 | 0 | |
| vi. | 8 workers can paint a building in 24 days. How many days will 18 workers take? | 54 | $10\frac{2}{3}$ | $10\frac{1}{3}$ | 6 | 0 | 0 | 0 | 0 | |
| vii. | General sales tax is paid by: | Salesman | Buyer | Importer | Exporter | 0 | 0 | 0 | 0 | |
| viii. | According to some scholars the Nisab of Ushr for grain is: | 650 kg | 450 kg | 500 kg | 600 kg | 0 | 0 | 0 | 0 | |
| ix. | It is given that $A = \{h, i, p\}$ and $B = \{h, o, p\}$ then $A \cap B$ is equal to: | {h, o} | {h, i} | {I, o} | {h, p} | 0 | 0 | 0 | 0 | |
| х. | Set B is a subset of A can be denoted as: | B⊆A | B ⊇A | $\mathbf{B} \cup \mathbf{A}$ | $\mathbf{B} \cap \mathbf{A}$ | 0 | 0 | 0 | 0 | |
| xi. | The product of $2x + 3$ and x is: | $2x^2 + 3$ | $2x^2 - 3$ | $2x^2 + 3x$ | $2x^2 + 3x + 6$ | 0 | 0 | 0 | 0 | |
| xii. | 3, 1, $\frac{1}{3}$, $\frac{1}{9}$, the next term of the sequence is: | $\frac{1}{21}$ | $\frac{1}{27}$ | 1 81 | $\frac{1}{243}$ | 0 | 0 | 0 | 0 | |



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Time Allowed: 2:10Hrs. Total Marks: 48

Section-B (30 Marks)

Q. 2 Solve the following Questions:

 $(10 \times 3 = 30)$

| (i) | Find the value of the following: $7\frac{1}{2} + (-3\frac{3}{5})$ | 03 | OR | Find the multiplicative inverse of given number. $-4\frac{1}{3}$ | 03 |
|--------|---|-------|--|--|----|
| (ii) | A prime number when added to 101 gives an odd prime number. Find it. | 03 OR | | Find the square of the given number $\frac{7}{23}$ | 03 |
| (iii) | Express the following in m/s 18 km/h, 90 km/h, 367 km/h | 03 OR | | The ratio of teachers to students in a school is 1:15. If there are 675 students, how many teachers are there? | 03 |
| (iv) | Find the cost of 10 kg tea leaves when 3 kg tea leaves cost Rs. 18. | 03 OR | | Amjad earns Rs. 2500 in 5 days. What is his pay for 3 days? | 03 |
| (v) | Find the profit or loss percentage in the following case C.P = Rs. 50, S.P = Rs. 70 | 03 | OR | Find Zakat on 8 tola gold at the rate of Rs. 80000 per tola. | 03 |
| (vi) | A publisher gives a commission of 20% on books. Find commission if book seller buys books having um of written price as Rs. 2350. | 03 OR | | Hassan sold a fan for Rs. 2500 and had a loss of Rs. 500. Find C.P and loss percent. | 03 |
| (vii) | List all proper subsets of $Y = \{5, 7, 9\}$ | 03 | OR | Find $X - Y$ and $Y - X$ if $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e, f\}$ | 03 |
| (viii) | Find the union and intersection of the given pair of sets. $A = \{4, 8, 12, 16\}$ $B = \{8, 10, 12\}$ | 03 | OR | If $\mathcal{E} = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$ A = $\{1, 2\}$ and B = $\{1, 2, 3, 4\}$ Draw a Venn diagram to represent the above sets and to illustrate their relationship. | 03 |
| (ix) | Abid deposited Rs. 1000 in the bank in January. Next month, he deposited Rs. 1250 and continued to deposit in the same ratio each month. Find the amount deposited in the month of August. Also find total amount deposited in his account till August. | 03 | OR $A designer is preparing to paint a wall found that its area is: 3m(m+7) + k(m+7) Find the length and width of the wall.$ | | 03 |
| (x) | Evaluate by using formula: $(2.01)^2$ | 03 | OR | Simplify the following $(5x-4y)^2 - (4x-2y)^2$ | 03 |

Section-C (18 Marks)

Note: Solve the following Questions:

 $(3 \times 6 = 18)$

| Q.3 | a) Ali has 8 cups of popcorns to divide into $\frac{2}{3}$ cup portions. How many portions will be there? b) Verify that: $\sqrt{25 \times 16} = \sqrt{25} \times \sqrt{16}$ | 03+03 | OR | a) Wasiq has 8 ½ cups of fruit juice. If he divides the juice into ¾ cups serving, how many servings are possible? b) Area of a square region is 121 m². Find the length of its side. | 03+03 |
|-----|--|-------|----|---|-------|
| Q.4 | a) Cost of 10 books is Rs. 1640. What is the cost of 4 books? b) A manufacturer sold an article to a wholesaler for Rs. 500 who again sold it for Rs. 750. If the rate of sales tax on goods is 10% then find WAT paid by the wholesaler. | 03+03 | OR | a) An athlete runs a 1000 m race in 3 minutes 20 seconds. Find his speed in meters per second. b) A land is irrigated by a river. Find the value of cotton produced if Usher given is Rs. 9786.5. | 03+03 |
| Q.5 | a) It is given that E = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10} A = {2, 4, 6, 8, 10} B = {1, 2, 3, 4, 5, 6}. Find (A ∪ B)' and A' ∩ B'. b) Find the first five terms of sequence when its general term is 2n + 1 | 04+02 | OR | a) Evaluate the following polynomial $(4x^3 + 6x^2 - 3x + 7)(x+2)$ b) $\mathcal{E} = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ $A = \{2, 4, 6, 8, 10\}$ $B = \{1, 2, 3, 4, 5, 6\}$. Find $(A' \cup B')'$ and $A' \cap B'$ | 02+04 |