

Directorate of Curriculum, Assessment & Research Sindh, Jamshoro
Model Paper 2023-24

Time: 3 hours Grade: IV Subject: Mathematics Total Marks: 100

Name of Student: _____ S/D/O _____ Gender: (Boys/Girls) _____
Medium: _____ School Name: _____
Taluka: _____ City/Village: _____ Signature of Invigilator: _____

Part-One (MCQs)-Marks-20

Q.No.01: The smallest seven digits number is:

- A) 1111111 B) 100000 **C) 1000000** D) 9999999

Q.No.02: The prime factors of 24 are:

- A) 2,2,2,3** B) 2,2,2,4 C) 2,2,3,3 D) 2,2,4,4

Q. No.03: which fractions are ascending order:

- A) $1/7, 2/7, 3/7, 6/7$** B) $6/7, 3/7, 2/7, 1/7$ C) $1/7, 2/7, 6/7, 3/7$ D) $2/7, 3/7, 1/7, 6/7$

Q.No.04: Mr. Aslam wants to divide 3.36 kg of sweets equally among 4 relatives. How much will each relative receive?

- A) 0.84 kg** B) 3.32 kg C) 3.40 kg D) 13.44kg

Q. No.05: The place value of 8 in 58.923,107 is:

- A) 8** B) 80,000 C) 800,000 D) 8,000,000

Q. No.06: $3/7 + 5/7$, the sum of two fraction is:

- A) $6/7$ B) $8/5$ C) $5/7$ **D) $8/7$**

Q. No.07: The decimal 0.135 is equal into the fraction:

- A) $135/10$ B) $135/100$ **C) $135/1000$** D) $135/10000$

Q. No.08: $4/9 \div 16/9 =$

- A) $1/4$** B) $1/5$ C) $1/6$ D) $1/7$

Q. No.09: The least common multiple of 4 and 9 is:

- A) 32 **B) 36** C) 40 D) 45

Q. No.10: Yusra cuts a ribbon 13.75 m long into the 5 equal pieces. What will be the length of each piece?

- A) 2.75m** B) 8.75m C) 18.75m D) 68.75m

Q. No.11: A cloth is 6272 meter long. If one suit takes 7 meters of cloth. How many suits can be-made?

- A) 894 **B) 896** C) 897 D) 898

Q. No.12: The centimeters in 5m is:

- A) 50 cm **B) 500 cm** C) 5,000 cm D) 50,000 cm

Q. No.13: The length of an iron rod is 2m 86cm. If we cut 1m 38cm. How much iron rod is left:

- A) 1m 44cm B) 1m 46cm **C) 1m 48cm** D) 1m 50cm

Q. No.14: Months in 8 years are:

- A) 36 months B) 56 months C) 76 months **D) 96 months**

Q. No.15: Minutes in 02 hours is:

- A) 60 minutes **B) 120minutes** C) 180 minutes D) 360 minutes

Q. No.16: A grain merchant had 3000kg of peas. He sold 1856kg 750g of it. What weight of peas had he left?

- A) 1142kg 250g **B) 1143kg 250g** C) 1144kg 250g D) 1145kg 250g

Q. No.17: If radius of the circle is 3 cm, the diameter will be:

- A) 2 cm B) 4 cm **C) 6 cm** D) 8 cm

Q. No.18: A complete circle is divided into angle of rotations:

- A) 90 degree B) 180 degree C) 270 degree **D) 360 degree**

Q. No.19: Diameter of the circle is equal to:

- A) r **B) 2r** C) 3r D) 4r

Q. No.20: The pictures of different objects are used to represent different information, so such pictorial data are called:

- A) Graph **B) Pictograph** C) Data D) Information

Part- Two (CRQs)

Marks: 40

Note: attempt any eight questions; every question carries 05 marks;

Q.No.01: Solve $26,639 \times 486$

Q.No.02. A company manufactures 865271 bicycles and another company manufactures 725059 bicycles in a year. What is the total production of both companies in a year?

Q.No.03. Factorize the following numbers using the factor tree method.

- (i) 36 (ii) 54

Q.No.04 What is the maximum number of students among which Haider can distribute sweets and -jelly to divide them equally?

Q.No.05 Convert into millimeters:

- (i) 15 cm (ii) 19 cm (iii) 30 cm (iv) 50 cm (v) 100 cm

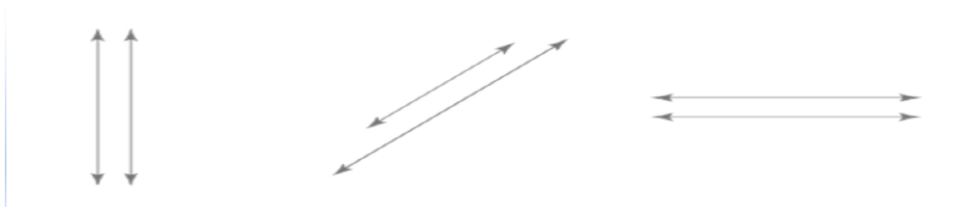
Q. No.06 Convert the following into minutes.

- (i) 1 hour (ii) 2hour (iii) 2.30 hour (iv) 2.45 hour (v) 2.59 hour

Q.No.07 Verify $\frac{4}{17} + \frac{9}{17} = \frac{9}{17} + \frac{4}{17}$

Q.No.08 Convert 0.32 into fraction:

Q.No.09 Identify parallel and non-parallel lines.



(i)

(ii)

(iii)



(iv)



(v)

Q.No.10 By using compass and ruler draw the following circles if their radii are:

- (i) 4.1 cm (ii) 4.4 cm (iii) 5.5 cm (iv) 6 cm (v) 7 cm

Q.No.11 Draw rectangle with sides of the length of 12.3cm and 5.2cm using protractor or set square.

Part- Three (ERQs)

Marks: 40

Note: Attempt any four questions; every question carries 10 marks;

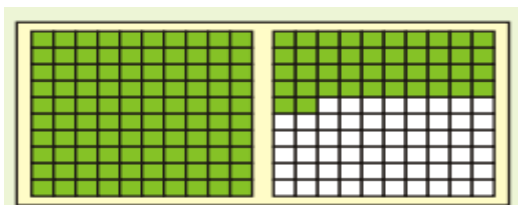
Q. No.12: Write the following numbers in figures:

- Four thousand six hundred and ninety two.
- Sixty nine thousand and four hundred seven.
- Four hundred fifty six thousand and nine hundred twenty six.
- Seventy hundred thousand.
- Ninety hundred two thousand and forty two.

Q.No.13 Write the missing numbers.

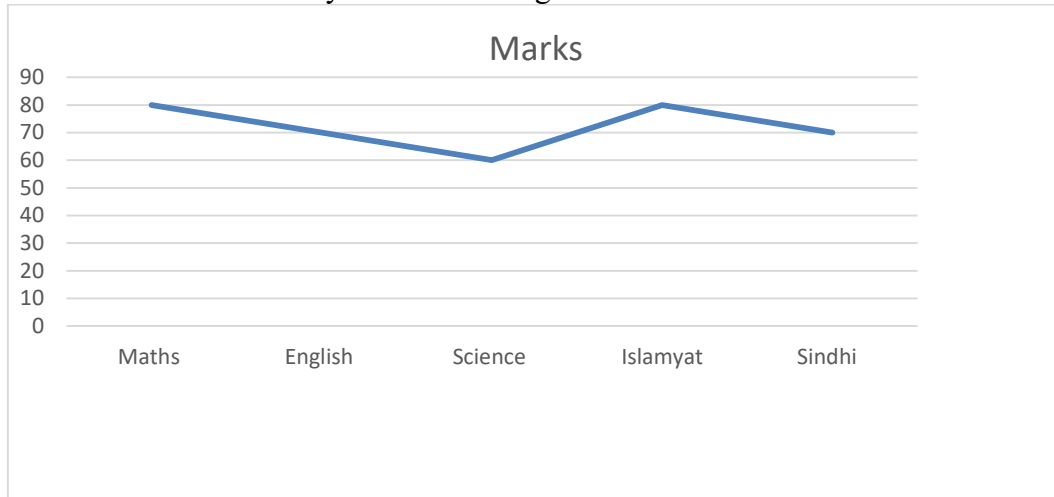
- 2,450,761, 2,451,761, 2,452,761, ____, ____, ____.
- 7,000,300, 7,000,400, 7,000,500, ____, ____, ____.

Q.No.14 If the whole is divided into 100 equal parts, and 31 of them are shaded. Write in decimal fraction.



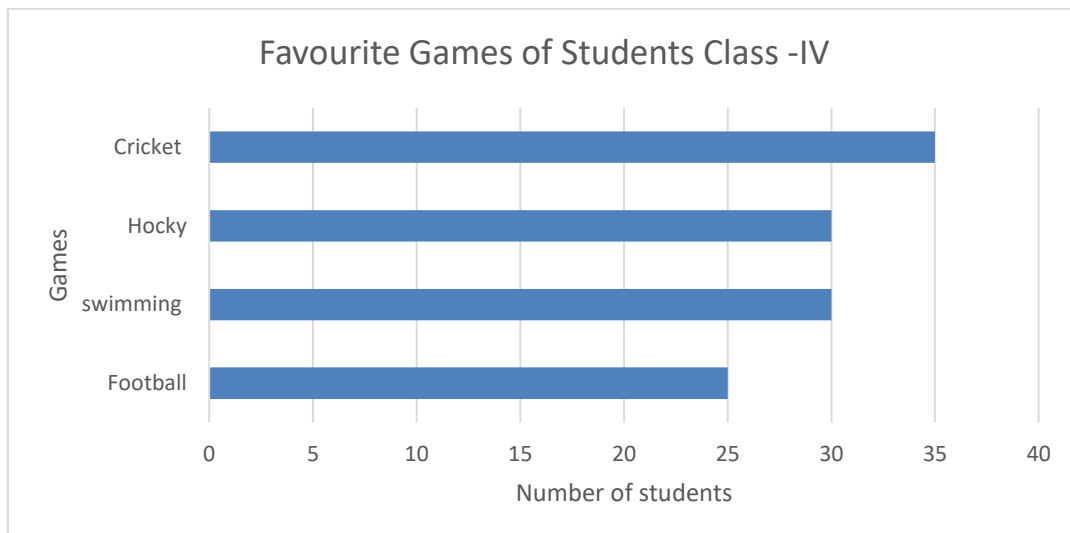
Q.No.15 Look at the given below line graph and answer the following questions:

- i. In which subject Samina secured the highest marks?
- ii. What were her total marks obtained?
- iii. How many marks did she get in English?
- iv. How many marks did she get in Maths? In which subject did she get the lowest marks?
- v. How many marks did she get in Sindhi?



Q.No.16. Look at the given below bar graph and answer the following questions:

- (i) How many students like Hockey?
- (ii) How many students like Football?
- (iii) Which game is liked least?
- (iv) How many students like cricket?
- (v) How many total students involved in games?



The End

Directorate of Curriculum, Assessment & Research Sindh, Jamshoro
Model Paper 2023-24

Time: 3 hours Grade: V Subject: Mathematics Total Marks: 100

Name of Student: _____ S/D/O _____ Gender: (Boys/Girls) _____
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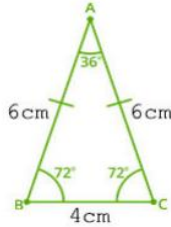
Part-One (MCQs)-Marks-20

- i. The number of digits in 1 million are:
(a) 5 (b) 6 **(c) 7** (d) 8
- ii. Solve: 4353×100
(a) 43530 **(b) 435300** (c) 434300 (d) 4353000
- iii. If due to Covid safety measures, only 25 students can sit in a class room, then classrooms required for 175 students will be:
(a) 3 (b) 5 (c) 6 **(d) 7**
- iv. The HCF of 60 and 42 is:
(a) 4 (b) 5 **(c) 6** (d) 7
- v. LCM of 3, 6, 9 is:
(a) 3 (b) 6 (c) 9 (d) 18
- vi. Solve $\frac{3}{7} \times \frac{7}{3}$
(a) 1 (b) 3 (c) 21 (d) 49
- vii. Solve $1.47 \div 7$
(a) 0.20 **(b) 0.21** (c) 0.22 (d) 0.23
- viii. There are 825 students studying in a school. 40% percent are girls, the total girls are:
(a) 325 **(b) 330** (c) 335 (d) 340
- ix. The leap year is equal to:
(a) 360 days (b) 365 days **(c) 366 days** (d) 380 days
- x. $59^{\circ} F$ to equal the Celsius scale:
(a) $15^{\circ} C$ (b) $32^{\circ} C$ (c) $45^{\circ} C$ (d) $60^{\circ} C$
- xi. 25 meter is equal to:
(a) 250 cm **(b) 2500 cm** (c) 25000 cm (d) 250000 cm
- xii. $46 \text{ min } 15 \text{ sec} + 56 \text{ min } 35 \text{ sec}$ is equal to:
(a) 46 min 50 sec (b) 56 min 50 sec (c) 81 min 21 sec **(d) 102 min 50 sec**
- xiii. 35% in decimal will be:
(a) 0.35 (b) 3.5 (c) 0.53 (d) 5.3
- xiv. The word cent means:
(a) percent **(b) hundred** (c) fraction (d) decimal
- xv. The largest prime number between 1 and 100 is:
(a) 89 (b) 93 **(c) 97** (d) 99
- xvi. The space occupied by the boundary of a shape is called:
(a) Triangle (b) Square **(c) Perimeter** (d) Region
- xvii. The area of a rectangle with length 4cm and breadth 2cm is:
(a) 4 cm^2 (b) 8cm **(c) 8 cm^2** (d) 16cm
- xviii. The order of rotational symmetry of given figure is:



- (a) 3 (b) 5 (c) 6 (d) 8

xix. The following triangle is a/an:



- (a) Equilateral Triangle (b) Isosceles Triangle (c) Scalene Triangle (d) Right angle Triangle

xx. The Perimeter of the given square is:



- (a) 10cm (b) 15cm (c) 20 cm (d) 25cm

Part- Two (CROs)

Marks: 40

Note: attempt any eight questions; every question carries 05 marks;

Q.1. Write the following numbers in words.

- (i) 66,655,522 (ii) 245,672,316

Q.2. How many boxes will be required to pack 235704 oranges, if one box contains 56 oranges?

Q.3. What is the purpose of the rule of BODMAS in mathematics?

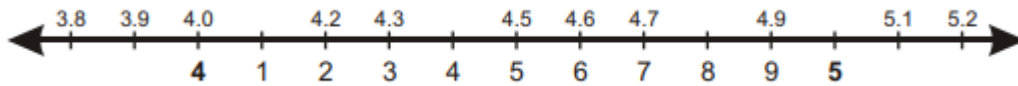
Q.4. Two piece of cloth 15 metres and 20 metres long are to be cut into small pieces of equal lengths. What will be the greatest length of each piece?

Q.5. Verify the distributive law of multiplication over subtraction of $(\frac{4}{5} - \frac{3}{4}) \times \frac{2}{3} = (\frac{4}{5} \times \frac{2}{3}) - (\frac{3}{4} \times \frac{2}{3})$

Q.6. There were 56 students in class five. On a rainy day $\frac{1}{8}$ of them absent. How many were present?

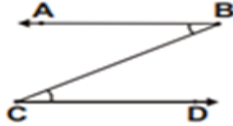
Q.7. Change the fractions into decimals; $\frac{50}{15}$ and $\frac{11}{16}$

Q.8. Round off the decimals to the nearest whole number: 4.2 , 4.5 and 4.7



This is a number line, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1 and 5.2 are represented on it.

Q.9. Is ABC adjacent to BCD? Why or Why not?



Q.10. Using a ruler and a pair of compasses, construct the following equilateral triangles.

- (i) ABC where $m\overline{AB} = m\overline{BC} = m\overline{CA} = 4$ cm.
- (ii) DEF where $m\overline{DE} = m\overline{EF} = m\overline{DF} = 3.5$ cm.

Q.11. The six hours journey of a person on a car is given below;

Hours	1	2	3	4	5	6
Distance in KM	20	18	20	22	16	18

What is average distance covered per hour?

Part- Three (ERQs)

Marks: 40

Note: Attempt any four questions; every question carries 10 marks;

Q.12. Solve up to 3-decimal places:

- (i) $40.25 \div 4$ (ii) $89.64 \div 6$ (iii) $0.555 \div 5.5$

Q.13. Find the value of: (i) 3.5% of 450 (ii) 110% of 220 (iii) 0.45% of 760

Q.14. Construct equilateral triangle when $m\angle PQR = 60^\circ = m\angle QPR$ and $mPQ = 4$ cm.

Q.15. Find the area of both fields; a square of 25 m side and a rectangle 30 m in length and 20 m in breadth.

Q.16. Draw block graph or column graph of the following:

Result of examination of class V.

Grade	A1	A	B	C	D
No. of Children	20	25	15	20	5

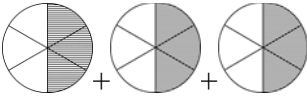
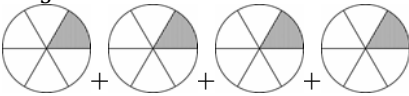

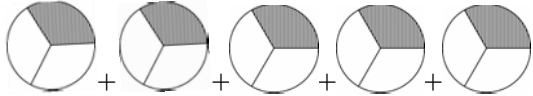
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
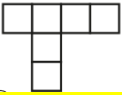
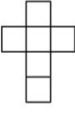
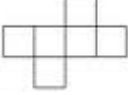
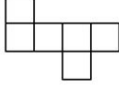
Directorate of Curriculum, Assessment & Research Sindh, Jamshoro
Model Paper 2023-24

Time: 3 hours Grade: VI Subject: Mathematics Total Marks: 100

Name of Student: _____ S/D/O _____ Gender: (Boys/Girls) _____
Medium: _____ School Name: _____
Taluka: _____ City/Village: _____ Signature of Invigilator: _____

Part-One (MCQs)-Marks-20

- I. The value of 6 in the number 7 856 211 is:
(a) 60, (b) 600, **(c) 6 000**, (d) 60 000
- ii. Nine million, three thousand, five in figures is:
(a) 903 005 **(b) 9 003 005** (c) 90 003 005 (d) 90 003 500
- iii. Write the value of the 3 in the number 6938521 is:
(a) 300, (b) 3000, **(c) 30 000**, (d) 300 000
- iv. The cube of 20 is:
(a) 400 (b) 4 000 **(c) 800** (d) 8 000
- v. The HCF of 20, 48 and 56 is:
(a) 2, **(b) 4**, (c) 5, (d) 6
- vi. The prime factorization of 16 is:
(a) 2×8 , (b) 1×16 , **(c) $2 \times 2 \times 2 \times 2$** , (d) $2 \times 4 \times 2$
- vii. The LCM of two or more prime numbers is always equal to their:
(a) Prime factor (b) quotient (c) LCM **(d) product**
- viii. Which one of the following is the smallest fraction?
(a) $\frac{2}{5}$ **(b) $\frac{1}{3}$** (c) $\frac{2}{3}$ (d) $\frac{3}{5}$
- ix. The correct option where appropriate: $\frac{1}{3} + \frac{2}{5} = ?$
(a) $\frac{3}{5}$ **(b) $\frac{11}{15}$** (c) $\frac{3}{8}$ (d) $\frac{2}{15}$
- x. Which figure of the following shows $5 \times \frac{1}{3}$?
- xi. (a)  + (b) 
- (c)  + (d) 
- xii. 20% of 540 is:
(a) 54 (b) 76 **(c) 108** (d) 162
- xiii. The percentage is a special kind of fraction whose denominator is always:
(a) 1, (b) 10, **(c) 100**, (d) 1000
- xiv. Two kilometers are equal to:


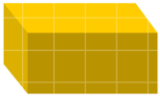
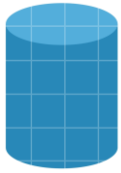


- (a) 500meter, (b) 1000 meter, **(c) 2000 meter,** (d) 4000 meter
- xv. Hours, minutes and seconds are used to measure:
(a) Distance **(b) Time** (c) Area (d) length
- xvi. Sum of measures of three angles in a triangle is:
(a) 90° (b) 150° **(c) 180°** (d) 360°
- xvii. Which of the following shapes is not quadrilateral?
(a)  (b)  (c)  **(d)** 
- xviii. Which of the following is not the net of a cube?
(a)  (b)  (c)  (d) 
- xix. The formula to find the perimeter of the rectangular is:
(a) $2(L+W)$ (b) $2L+W$ (c) $L+2W$ (d) $L+W$
- xx. If a Anwar got 19, 21, 22, 24 and 19 marks in different subjects in the monthly test, his average marks will be:
(a) 19 **(b) 21** (c) 22 (d) 24

Part- Two (CROs)

Marks: 40

Note: attempt any eight questions; every question carries 05 marks;

- Q.1. What are the rules for these patterns? Also find the next three terms of each pattern?
(i) 5, 7, 9, __, __, __,
(ii) 50, 100, 150, 200, __, __, __,
(iii) 180, 165, 150, 135, __, __, __,
(iv) 18, 90, 450, 2250, __, __, __,
(v) 2100000, 210000, 21000, __, __, __,
- Q.2. Find HCF of the following numbers using prime factorization method?
(i) 15, 18 (ii) 25, 40 (III) 21, 48 (iv) 10, 18, 22, (v) 39, 51, 75
- Q.3. Find LCM of 12, 20 and 30 using division method?
- Q.4. Compare the following decimals using correct symbols ($>$, $<$ or $=$)
(i) 0.5 ___ 0.8 , (ii) 1.8 ___ 1.4 (iii) 34.56 ___ 34.45 (iv) 70.78 ___ 70.67
(ii) (v) 20.01 ___ 20.01
- Q.5. Amir wants to buy a chocolate which costs Rs.98.46, he has Rs.52.25. How much more money does he needs to buy the chocolate?
- Q.6. Convert any two of the following;
(i) 198 Meter to Centimeter, (ii) 580 minutes to hours and minutes, (iii) 78 years to months,
- Q.7. If the Price of 16 school bags are Rs. 24000/= find price of 3 such bags?
- Q.8. Give the names of the following 3-D shapes?

Figure(s):					
Name (s):					

- Q.9. Area of a parallelogram is 35cm^2 . Find base of parallelogram if its height is 5cm long?
- Q.10. A labourer earned Rs.1200/= on the first day, Rs.1000/= on the 2nd day, Rs.1500/= on 3rd day, Rs1300/= on the 4th day, and Rs.1200 on the 5th day. How many rupees did he earn on average in these five days?
- Q.11. A coin is tossed 125 times. Head is obtained 75 times and tail is obtained 50 times. What is the probability of (i) getting a head? (ii) getting a tail?

Part- Three (ERQs)

Marks: 40

Note: Attempt any four questions; every question carries 10 marks;

Q.12. Solve the following;

(i) $\frac{7}{20} + 4\frac{3}{10}$, (ii) $3\frac{14}{50} - 2\frac{9}{25}$, (iii) $\frac{6}{30} \times \frac{5}{24}$, (iv) $\frac{3}{25} \div \frac{9}{45}$, (v) $\frac{8}{5} + \frac{19}{15} - \frac{4}{30}$

Q.13. In a fabric shop, there was 43.5 meters of colored cloth. If it is cut into equal pieces of 1.5 meters, find

- i) How many pieces of cloth will be obtained?
- ii) What will be the total length of 12 pieces of cloth of length 1.5 meters?

Q.14. Nadia has a rectangular frame. The frame is 12 cm long and 8 cm wide. Nadia wants to put a ribbon around the frame?

- i) Find the required length of the ribbon.
- ii) What will be total cost of the ribbon if 1 meter of cost Rs.20/=

Q.15. A rectangular hospital has a perimeter equals to 294 meters. If its length is 85 meters, find its area?

Q.16. In the following table, the values of temperature in Hyderabad during a week of August are given. Draw a horizontal bar graph to represent this data?

Days of the week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Temperature °C	32	33	30	32	36	40	38

The End

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Part-One (MCQs)-Marks-20

Q.No.01: $Z = \{-3, -2, -1, 0, 1, 2, 3, \dots\}$ is called:

- A) Set of Natural numbers **B) Set of Whole numbers**
C) Set of integers numbers D) Set of Even numbers

Q.No.02: $A = \{a, b, c, d\}$ How many possible subsets of A:

- A) 4 B) 8 **C) 16** D) 32

Q.No.03: The number π is known as:

- A) Rational **B) Irrational** C) Whole D) Natural

Q.No.04: The area of a square field is $4,225m^2$ what will be the length of its side:

- A) 63m B) 64m **C) 65m** D) 66m

Q. No.05: The conversion of 1101_2 into decimal number is:

- A) 12 **B) 13** C) 14 D) 15

Q.No.06: The multiplication of two octal number "67 x 45" is equal to:

- A) 3760 B) 3761 C) 3762 **D) 3763**

Q. No.07: The cost of 25 articles is Rs. 300 rupees what will be the cost of 225 articles:

- A) Rs.2500 B) Rs.2600 **C) Rs.2700** D) Rs.2800

Q. No.8: Asad bought a car for Rs 500,000 and sold it for 550,000 what will be the profit:

- A) 5% **B) 10%** C) 15% D) 20%

Q.No.9: The degree of the polynomial of the expression $xy + xy^2$ is:

- A) 3** B) 1 C) 2 D) 4

Q.No.10: The factorization of the expression $x^2 + 6xy + 9y^2$ will be:

- A) $(x + 3y)$ **B) $(x + 3y)^2$** C) $(2x + 3y)^2$ D) $(x + 2y)^2$

Q.No.11: The solution of the expression $(5x + 10y + 3xz + 6yz)$ will be:

- A) $(5 + 3z)(x + 2y)$** B) $(5 - 3z)(x + 2y)$

- C) $(5 + 3z)(x - 2y)$ D) $(5 - 3z)(x - 2y)$

Q.No.12: The sum of measures of each angle of a regular pentagon is:

- A) 104^0 **B) 108^0** C) 120^0 D) 540^0

- Q.No.13: The measure of perpendicular of right-angled triangle is 4cm and its base is 3cm what will be the measurement of the hypotenuse:
 A) 3 B) 4 **C) 5** D) 6
- Q.No.14: The Area of Triangle ABC whose lengths of its sides are 10cm,17cm and 21cm what- will be its semi perimeter?
 A) 21cm B) 22cm C) 23cm **D) 24cm**
- Q.No.15: The formula of volume of the sphere is:
 A) $V = 2/3 \times \pi \times r^2$ B) $V = 1/3 \times \pi \times r^2$
 C) $V = 4/3 \times \pi \times r^2$ **D) $V = 4/3 \times \pi \times r^3$**
- Q.No.16: Line segment, Ray, Angle, Triangle, Perpendicular, Bisector etc, are called:
A) Defined term B) Undefined term C) Assumptions D) Preposition
- Q.No.17: Fundamental Agreements which are related to geometrical figures are called:
A) Axioms B) Postulate C) Assumption D) Preposition
- Q.No.18: Two angles whose sum is equal to 180° are called:
 A) Vertically opposite angles B) Complementary angles
 C) Adjacent angles **D) Supplementary angles**
- Q.No.19: What will be value of $\cos 30$ degree?
 A) $1/2$ B) $1/\sqrt{2}$ **C) $\sqrt{3}/2$** D) $1/\sqrt{3}$
- Q.No.20: What will be the mean (Average) of the numbers 6, 8,10,12,14?
 A) 6 B) 8 **C) 10** D) 12

Part- Two (CRQs)

Marks: 40

Note: attempt any eight questions; every question carries 05 marks;

- Q.No.01. If $A = \{1,2,3\}$ and $B = \{1,3,5\}$ verify commutative property with respect to union and intersection;
 (i) $A \cup B = B \cup A$ (ii) $A \cap B = B \cap A$
- Q.No.02. Convert base-two numbers into the decimal numbers.
 (i) 1100111_2 (ii) 11000101_2
- Q.No.03. The annual income of Junaid is 480,000, if he pays 2% tax find the value of it?
- Q. No.04. Simplify the given polynomials:
 (i) $6(2x+y-7xy)-3(5x-2y+5xy)$ (ii) $x^2(x^2+xy+y^2)-y^2(x^2-xy-y^2)$
- Q.No.05. Ayesha bought potatoes in 300 rupees, if the price of tomatoes double than that of potatoes, find the price of tomatoes?
- Q.No.06. Factorize the given expressions.
 (i) $x^2+5x+6xy+30y$ (ii) $16a^2+40ab+25b^2$

- Q.No.07: The perimeter of PQRS is 18cm, if the length of one side double than its second side, find the length of each side?
- Q.No.08. Find the area of the triangle whose sides measure 10 cm, 17 cm and 21 cm. Also, determine the length of the altitude on the side which measures 17 cm.
- Q.No.09. Find the volume of spheres having its radius are:
- (i) 35 cm (ii) 0.42 cm
- Q.No.10. The weight of 20 students in Kilograms are:
- | | |
|--------|---|
| Weight | 60,61,67,68,59,58,55,58,59,56,60,61,66,65,64,63,60,59,58,56 |
|--------|---|
- What will be the median weight of students?
- Q.No.11. Find mode of the given data:
- (i) 14, 21, 27, 14, 28, 29 (ii) 24, 31, 37, 24, 38, 39

Part- Three (ERQs)

Marks: 40

Note: Attempt any four questions; every question carries 10 marks;

- Q.No.12. Prove the De Morgans's laws through venn diagram?
- Q.No.13. Find the square root of 2723.56 up to 3 decimal places?
- Q.No.14. The cost price of an article is Rs.6000. The shopkeeper writes the market price of the article 15% above the cost price. The selling price of that article is Rs.4600. Find the percentage of discount given to the customers?
- Q.No.15. Construct and define a kite DEFG where $m\overline{DE}=4\text{cm}$, $m\overline{EF}=8\text{cm}$ and the length of the longer diagonal is $m\overline{DE} = 10\text{cm}$.
- Q.No.16. The probability that the team will win the match is 0.86. What is the probability that the team will not win the match.

The End

Directorate of Curriculum, Assessment & Research Sindh, Jamshoro
Model Paper 2023-24

Time: 3 hours Grade-VII Subject: Mathematics Total Marks: 100

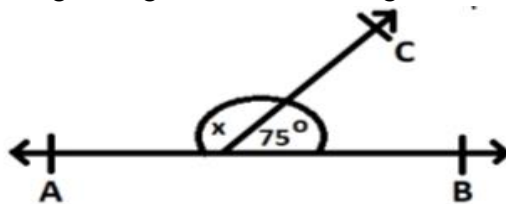
Name of Student: _____ S/D/O _____ Gender: (Boys/Girls) _____

Medium: _____ School Name: _____

Taluka: _____ City/Village: _____ Signature of Invigilator: _____

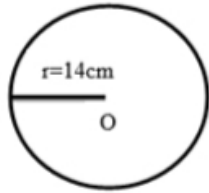
Part-One (MCQs) Marks:20

- i. The Name of Mathematician who introduce the set:
(a) Ibn-al-Haytham **(b) Georg Cantor** (c) Arthur Kelly (d) Al-Biruni
- ii. If $U = \{ 1, 2, 3, 4, 5, 6 \}$, $X = \{ 2,3,4 \}$ and $Y = \{ 4,5,6 \}$ then $(X \cup Y)'$ is:
(a) \emptyset (b) $\{ 2, 3 \}$ **(c) $\{ 1 \}$** (d) $\{ 6 \}$
- iii. A number which divides a given number completely is called a:
(a) **Factor** (b) multiple (c) remainder (d) numerator
- iv. 990 is divisible by:
(a) **2,3,5,11** (b) 2,3,11,13 (c) 3,6,11,17 (d) 5,6,7,9
- v. Depth of 100m below sea level is represented by:
(a) **-100m** (b) +100m (c) 0m (d) +1m
- vi. The absolute value of an integer is its distance from:
(a) Negative Integer (b) positive integer **(c) 0** (d) 1
- vii. $a : b$ is equivalent to;
(a) $a \div b$ (b) $b \div a$ (c) $a - b$ (d) $b - a$
- viii. If $a : b = 2 : 3$, $c : b = 4 : 3$, then $a : b : c =$
(a) 2 : 3 : 4 (b) 4 : 3 : 2 (c) 2 : 4 : 3 (d) 3 : 2 : 4
- ix. The universal set U for a set of even numbers is set of;
(a) odd number (b) composite number (c) prime number (d) **whole number**
- x. The speed of a racing car is 55 meter/second. Its speed in km/hour will be:
(a) 115 (b) 130 (c) 190 **(d) 198**
- xi. Jawad bought a mobile for Rs 60,000 and paid a markup of Rs 24,000 for 4 years. Markup rate is:
(a) 05% **(b) 10%** (c) 20% (d) 40%
- xii. Additive inverse of $-\frac{1}{3}$ is:
(a) $-\frac{1}{3}$ (b) $-\frac{3}{1}$ **(c) $\frac{1}{3}$** (d) $\frac{3}{1}$
- xiii. The square root of 784 is:
(a) 22 **(b) 28** (c) 32 (d) 38
- xiv. A linear equation consists of polynomials of degree:
(a) **One** (b) Two (c) Three (d) Four
- xv. In the given figure, the value of angle is:



- (a) 15° (b) 90° **(c) 105°** (d) 180°

xvi. Area of given circle is:



- (a) 176 cm (b) 176cm^2 (c) 616cm (d) 616cm^2
- xvii. In a quadrilateral the sum of the three angles of a quadrilateral is 270° , and then the measure of its fourth angle is:
(a) 90° (b) 180° (c) 270° (d) 360°
- xviii. In pie graph the measure of central angle is:
(a) 18° (b) 24° (c) 90° (d) 360°
- xix. In a group data, greatest value = 21, lowest value = 3 and number of interval = 3, then the size of class is:
(a) 3, (b) 6, (c) 18, (d) 21
- xx. In class interval (10-50), the upper class limit is:
(a) 10 (b) 11 (c) 50 (d) 51

Part- Two (CRQs)

Marks: 40

Note: Attempt any eight questions; every question carries 05 marks;

- Q. 1. Describe the names of three forms of expressing a set.
- Q.2. Simplify: (i) $\frac{5}{6} + \frac{3}{8}$ (ii) $\frac{4}{3} - \frac{2}{5}$
- Q.3. Find the least length of a rope which can be cut into pieces of lengths 30m, 36m and 54m?
- Q.4. Find the greatest number which exactly divided 595,357 and 102.
- Q.5. 5 students were absent from a class of 45 students.
(i) What fraction of the students was absent?
(ii) What percentage of the students was present?
- Q.6. Simplify: $3x - \{(2x + y)(2x - y) - (4x^2 + 2y^2)\}$
- Q.7. Verify: $\left(\frac{1}{5}\right)^4 \times \left(\frac{1}{5}\right)^5 = \left(\frac{3}{5}\right)^9 \times \left(\frac{1}{3}\right)^9$
- Q.8. Find the square root of the following decimals by factorization method:
(i) 1.44 (ii) 0.81
- Q.9. After a whole year a business man has saved Rs 80,000 in cash. He has a cash in Bank of Rs 600,000. Find the Zakat due on him.
- Q.10. Solve the $2x+3 = 6 - (2x-3)$.
- Q.11. In class VII there are 30 students. The favorite color of 16 is red, 9 is blue, 7 students like pink color and 4 like white, make a pie chart of it?

Part- Three (ERQs)

Marks: 40

Note: Attempt any four questions; every question carries 10 marks;

- Q.12. If $A = \{8, 10, 12, 14, 16\}$, $U = \{8, 10, 11, 12, 13, 14, 15, 16\}$ and $B = \{8, 15\}$ then find the following and represent through Venn diagram.
(i) A' (ii) B' (iii) $(A-B)'$ (iv) $A \cup A'$ (v) $B' \cap B$
- Q.13. Verify the distributive property of rational numbers w.r.t. multiplication over addition for $\frac{1}{7}$, $\frac{2}{7}$ and $\frac{3}{4}$.
- Q.14. Divide Rs.176 among Amna, Fatima and Umer in such a way that Amna gets 2 times than Fatima and Umer gets $2\frac{1}{2}$ times than Amna.
- Q.15. A farmer produces 5,000 kg of wheat and vegetables of worth Rs 48,000. Find the amount of Ushr due upon him at the rate of 5% . The rate of wheat is Rs 35 per kg.
- Q.16. Draw a circle with radius 4 cm. Cut the circle along a chord other than diameter. Demonstrate the property that 'The two angles in the major segment of the circle are equal'.