CLASS 6 SAMPLE PAPERS - 2

ANNUAL EXAMINATION

Time: 3 hrs Max: 80 marks

General Instructions:

- Section A consists of 6 questions carrying 1 mark each.
- Section B consists of 6 questions carrying 2 marks each.
- Section C consists of 10 questions carrying 3 marks each.
- Section D consists of 8 questions carrying 4 marks each.

SECTION A

1. The mixed fractional form of 7/2 is ----------
($3\frac{1}{2}$, $2\frac{1}{4}$, $2\frac{1}{3}$, $3\frac{1}{4}$)

2. 0.02 is equal to ----------
($\frac{1}{20}$, $\frac{1}{25,}$ $\frac{1}{50}$, $\frac{1}{10}$)

3. Perimeter of an equilateral triangle of length 3 cm is ----------
(6, 9, 12, 15)

4. 3 more than twice a number x is ----------
(2 + 3x, 2x + 3, 3 + x, x+2)

5. The ratio equivalent to 1:2 is ----------
(6:8, 4:3, 4:2, 3:6)

6. Express 9 cm 4 mm as decimals
(4.9 cm, 9.4 cm, 9.04 cm, 4.09 cm)

SECTION B

7. Draw a number line and locate $\frac{3}{5}$ on it.
8. Reduce to the lowest terms.
a) $\frac{16}{24}$
b) $\frac{30}{45}$
9. Write each of the following as decimals.
a) 900 + 50 + $\frac{9}{100}$ + $\frac{5}{1000}$
b) $\frac{4}{10}$ + $\frac{5}{100}$ + $\frac{6}{1000}$

10. Find expressions for the following

a) 6 is multiplied by y then the result is added to 12.

b) 4 times a number m is y less than 2 times a number p.

11. Arun runs daily as part of his fitness plan. He runs 4.86 km on Monday, 4.92 km on Tuesday and 3.48 km on Wednesday. Find the total distance covered by him during the 3 days.

12. In a class of 32 students, 12 are boys and the remaining are girls. Find the ratio of the number of girls to the total number of students.

SECTION C

13. Find the value of

a)30 +(-20) +70

0b) (-15) + (-10) +40

c) (-12) + (-10) + (-18)

14. Find the sum of $3\frac{1}{2} + 2\frac{1}{3} + 1\frac{1}{6}$

15. The ratio of the length and breadth of a rectangle is 5:2. Find the length if the breadth is 50m

16. Sonu purchased 4 kg 500 g oranges, 2kg 20g apples and 3 kg 300 g grapes. Find the total weight of her purchases.

17. Arjun walks around a square park whose side is 50m.He takes 4 rounds daily. How much distance does he cover in all?

18. Cost of 5 kg of rice is Rs 160.

a) What will be the cost of 7 kg of rice?

b) What quantity of rice can be purchased with Rs 320?

19. The number of road accidents occurred per day was recorded for 28 days of February 2018 in a city as follows.

1	4	5	2	4	1	1	6	9	2	4	8	4	9
3	5	2	3	1	0	6	3	7	2	3	5	6	1

a) Prepare a frequency table for the data using tally marks

b) What value is depicted from this table?

20. Solve the following.

a) 2x + 5 = 11

b) $\frac{y}{2} + 3 = 7$

c) z – 6 = 4

21. Divide Rs 250 in the ratio 3:2 between Manu and Sonu.

22. Vinu painted $\frac{1}{5}$ of the wall space in his room. His sister painted $\frac{2}{5}$ more. How much did they paint together? How much space is left unpainted?

SECTION D

23. The floor area of room is to be tiled with square tile of side 40 cm. If the length of the room is 22 m and breadth is 20 m, then find the number of tiles needed?

24. Take Sarita's present age to be x years.

a) What will be her age 4 years from now?

b) What was her age 4 years back?

c) Sarita's grandfather is 6 times her age. What is the age of her grandfather?

d) Sarita's father's age is 4 years more than 3 times Sarita's age. What is her father's age?

25. A man purchased 20 litre of vegetable oil. He gave $5\frac{1}{4}$ litre of oil to his friend. Find the amount of oil left with him?

26. Vinu travels 23.5 km by bus, 10 km by scooter and some distance on foot. How much distance does he walk if he travels 50 km in all?

27. Present age of mother is 30 years and that of her son is 10 years. Find the ratio of

a) Present age of mother to present age of son.

b) Age of mother to the age of son, when son was 5 years old.

c) Age of mother after 5 years to the age of son after 5 years.

d) Age of mother to the age of son when mother was 25 years old.

28. The number of girls in a class is three more than thrice the number of boys in the class. Find the number of girls if there are b boys in the class.

29. The number of Mathematics books sold by a shopkeeper on six consecutive days is shown below:

Days	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Number of books sold	65	40	30	50	20	70

Draw a bar graph to represent the above information choosing the scale of your choice.

30. Construct angles of the following measures using ruler and compass.

a) 120°

b) 60°

c) 45°

d) $22\frac{1}{2}°$

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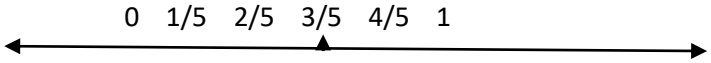
ANSWERS:

SECTION A

1. $3\frac{1}{2}$
2. $\frac{1}{50}$
3. 9 cm
4. 2x +3
5. 3:6
6. 9.4 cm

SECTION B

7.



8. a) $\frac{16}{24} \div \frac{8}{8} = \frac{2}{3}$

b) b) $\frac{30}{45} \div \frac{15}{15} = \frac{2}{3}$

9. a) 950.095

b) 0.456

10.a) 6y + 12

b) 4m = 2p –y

11. Distance travelled by Arun on Monday =4.86 km

Distance travelled on Tuesday = 4.92 km

Distance travelled on Wednesday = 3.48 km

Total distance travelled by Arun on these 3 days = 4.86 + 4.92 + 3.48 = 13.26 km

12. Total number of students in the class = 32

Number of boys =12

Number of girls = 32 – 12 = 20

So the ratio of number of girls to total number of students = 20: 32 $= \frac{20}{32} \div \frac{4}{4} = \frac{5}{8}$ = 5:8

13. a) 30 + (-20) + 70) = 10 + 70 = 80

b) (-15)) + (-10) + 40 = (-25) + 40 = 15

c) (-12) + (-10) + (-18) = -40

14. $3\frac{1}{2} + 2\frac{1}{3} + 1\frac{1}{6}$

$3\frac{1}{2} = \frac{3\times2+1}{2} = \frac{7}{2}$

$2\frac{1}{3} = \frac{2\times3+1}{3} = \frac{7}{3}$

$1\frac{1}{6} = \frac{1\times6+1}{6} = \frac{7}{6}$

$3\frac{1}{2} + 2\frac{1}{3} + 1\frac{1}{6} = \frac{7}{2} + \frac{7}{3} + \frac{7}{6}$

These fractions are not like fractions.

Convert into like fractions.

Here LCM of 2, 3 and 6 is 6 itself.

$\frac{7}{2} \times \frac{3}{3} = \frac{21}{6}$

$\frac{7}{3} \times \frac{2}{2} = \frac{14}{6}$

Therefore, $\frac{7}{2} + \frac{7}{3} + \frac{7}{6} = \frac{21}{6} + \frac{14}{6} + \frac{7}{6} = \frac{42}{6} = 7$

15. Given the ratio of length and breadth is 5:2

Also b = 50 m

Therefore, l: b = 5:2

l: 50 = 5:2

$\frac{l}{50} = \frac{5}{2}$

2l = 50 ×5

2l = 250

L = 250÷2 = 125

16. Weight of oranges purchased by Sonu = 4 Kg 500g

Weight of apples = 2 Kg 20 g

Weight of grapes = 3 Kg 300g

Total weight of purchases = 4.500 + 2.020 + 3.300 = 9.820 kg

17. Perimeter of the square park of side 50m = 4 ×50 = 200 m

Distance covered in 4 rounds = 200 ×4 = 800m.

18. a) Cost of 5kg of rice = Rs 160

Cost of 1 kg of rice = 160 ÷5 = Rs 32

Cost of 7 kg of rice = 32 ×7 = Rs 224

b) For Rs 320, we can purchase 10 kg of rice.

19. a)

Number of road accidents	Frequency	Tally marks
0	1	I
1	5	~~ℕ~~
2	4	IIII
3	4	IIII
4	4	IIII
5	3	III
6	3	III
7	1	I
8	1	I
9	2	II

b) Take utmost care while driving the vehicles. Then we can reduce the accidents.

20. a) 2x + 5= 11

2x = 11 -5 = 6

X = 6 ÷ 2 = 3

b) $\frac{y}{2}$ + 3 = 7

$\frac{y}{2}$ = 7 -3 = 4

Y = 2 x 4 = 8

c) Z -6 = 4

Z = 4 + 6 = 10

21. Total amount = Rs 250

Number of parts = 3 + 2 =5

Manu's share = $\frac{3}{5}$ ×250 = 3 × 50 = Rs 150

Sonu's share = $\frac{2}{5}$ × 250 = 2 × 50 = Rs 100

22. Number of parts that vinu had painted = $\frac{1}{5}$

Number of parts that his sister painted = $\frac{2}{5}$

Number of parts they painted together = $\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$

Therefore, $\frac{2}{5}$ space is left unpainted.

SECTION D

23. Given length of the room is 22m

Breadth = 20m

Area of the room = length x breadth = 22 x 20 = 440 square meter =4400000 square cm

Length of one side of the tile = 40 cm

Area of the square tile = 40 x 40 = 1600 square cm

Number of tiles required = 4400000 ÷1600 = 2750

24. a) x + 4

b) x -4

c) 6x

d) 3x + 4

25. Amount of vegetable oil purchased = 20 litre

Amount of oil he gave to his friend = 5 $\frac{1}{4}$ litre

Amount of oil left with him = 20 – 5 $\frac{1}{4}$ = 20 - $\frac{21}{4}$ = $\frac{20\times4-21}{4}$ = $\frac{80-21}{4}$ = $\frac{59}{4}$ =14 $\frac{3}{4}$ litre

26. Distance travelled by bus = 23.5 km

Distance travelled by scooter = 10 km

Total distance travelled = 50 km

Distance travelled by foot = 50 – (23.5 + 10) = 50 – 33.5 = 16.5 km

27. Present age of mother = 30 years

Present age of her son = 10 years

a) 30 : 10 = $\frac{30}{10} \div \frac{10}{10} = \frac{3}{1}$ = 3:1

b) When son was 5 years old, mother's age = 25 years

So 25:5 = $\frac{25}{5} \div \frac{5}{5} = \frac{5}{1}$ = 5:1

c) After 5 years, mother's age = 35 years

Son's age = 15 years

So 35:15 = $\frac{35}{15} \div \frac{5}{5} = \frac{7}{3}$ = 7:3

d) When mother's age = 25 years, Son's age = 5 years

So 25:5 = $\frac{25}{5} \div \frac{5}{5} = \frac{5}{1} = 5:1$

28. Given, number of boys = b

Number of girls = 3 + 3b

29. Do yourself.

30. Do the construction.

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