

SUBJECT: MATHEMATICS

MAX. MARKS : 40

CLASS : VI

DURATION : 1½ hr

SECTION – A

Questions 1 to 6 carry 1 mark each.

1. 0.7499 lies between
(a) 0.7 and 0.74 (b) 0.75 and 0.79 (c) 0.749 and 0.75 (d) 0.74992 and 0.75
Ans: (c) 0.749 and 0.75
0.7499 lies between 0.749 and 0.75
2. $0.07 + 0.008$ is equal to
(a) 0.15 (b) 0.015 (c) 0.078 (d) 0.78
Ans: (a) 0.078
First we have to convert given decimals into like decimals = $0.070 + 0.008$
So, sum of 0.070 and 0.008 = $0.070 + 0.008$
= 0.078
3. $15.8 - 6.73$ is equal to
(a) 8.07 (b) 9.07 (c) 9.13 (d) 9.25
Ans: (b) 9.07
First we have to convert given decimals into like decimals = 15.80
Now, $15.80 - 6.73 = 9.07$
4. $60 + 2 + \frac{8}{100}$ can be written in decimal form as
(a) 62.8 (b) 62.008 (c) 62.08 (d) none of these
Ans: (c) 62.08
5. Which of the following is true
(a) $0.3 > 0.4$ (b) $0.07 < 0.02$ (c) $0.9 > 0.8$ (d) $0.5 = 0.05$
Ans: (c) $0.9 > 0.8$
6. 22g in Kg can be written as
(a) 2.2Kg (b) 0.022Kg (c) 2.002Kg (d) 2.02Kg
Ans: (b) 0.022Kg

SECTION – B(CCT Questions)

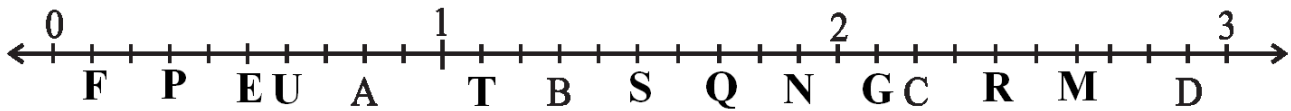
Questions 7 to 10 carry 1 mark each.

CCT Question

Decimals are used in situations where more precision is required in comparison to the whole numbers. For example, when we have to divide 3 apples among 4 kids, we cannot use whole numbers to denote the result of the division, as the fraction of share that is 0.75 lies between 0 and 1. In order to deal with similar other systems, the concept of decimal was introduced.

In order to represent decimals on the number line, we divide the section between two whole numbers as per the places after decimal present in the number to be represented.

Aditya is studying in Class VI and he was drawing the points on the number line. **The points on the number line are shown in below number line.**



Answer the following questions based on the above information:

7. Write the decimal number represented by the points G on the given number line.
 (a) 2.1 (b) 2.2 (c) 2.4 (d) 2.6
 Ans: (a) 2.1
8. Write the decimal number represented by the points R on the given number line.
 (a) 2.9 (b) 2.2 (c) 2.4 (d) 2.6
 Ans: (c) 2.4
9. Write the decimal number represented by the points Q on the given number line.
 (a) 1.9 (b) 1.3 (c) 1.5 (d) 1.7
 Ans: (d) 1.7
10. Write the decimal number represented by the points U on the given number line.
 (a) 0.8 (b) 0.5 (c) 0.6 (d) 0.1
 Ans: (c) 0.6

SECTION – C

Questions 11 to 13 carry 2 marks each.

11. Express the following as cm using decimals.
 (a) 2 mm (b) 30 mm (c) 116 mm (d) 4 cm 2 mm
 Ans: We know that 1 cm = 10 mm \Rightarrow 1 mm = 1 / 10 cm
 (a) 2 mm = 2 / 10 cm = 0.2 cm
 (b) 30 mm = 30 / 10 cm = 3.0 cm
 (c) 116 mm = 116 / 10 cm = 11.6 cm
 (d) 4 cm 2 mm = [(4 + 2 / 10)] cm = 4.2 cm
12. Which is greater? Give reason for your answer?
 (i) 1.008 or 1.800 (ii) 5.64 or 5.603
 Ans: (i) 1.008 or 1.800
 We know that the whole numbers are equal
 So by comparing tenths place we know that $0 < 8$
 Hence, $1.008 < 1.800$.
 (iii) 5.64 or 5.603
 We know that the whole numbers are equal
 So by comparing the hundredths place we know that $4 > 0$
 Hence, $5.64 > 5.603$.
13. Add : 41.8, 39.24, 5.01 and 62.6
 Ans: 41.8, 39.24, 5.01 and 62.6
 It can be written as
 $41.80 + 39.24 + 5.01 + 62.60 = 148.65$

SECTION – D

Questions 14 to 17 carry 3 marks each.

14. Rahul bought 4 kg 90 g apples, 2 kg 60 g of grapes and 5 kg 300 g of mangoes. Find the weight of the fruits he bought in all.

Ans: Weight of apples bought by Rahul = 4 kg 90 g = 4.090 kg

Weight of grapes bought by Rahul = 2 kg 60 g = 2.060 kg

Weight of mangoes bought by Rahul = 5 kg 300 g = 5.300 kg

So the weight of all the fruits = 4.090 + 2.060 + 5.300 = 11.450 kg

Hence, the weight of the fruits bought by Rahul is 11.450 kg.

15. Sunita travels 15 km 268 m by bus, 7 km 7 m by car and 500 m by foot in order to reach her school. How far is her school from her residence?

Ans: Distance travelled by Sunita by bus = 15 km 268 m = 15.268 km

Distance travelled by Sunita by car = 7 km 7 m = 7.007 km

Distance travelled by Sunita by foot = 500 m = 0.500 km

So the distance from residence to school = 15.268 + 7.007 + 0.500 = 22.775 km

Hence, the distance from her residence to school is 22.775 km.

16. Find the value of:

(i) $9.756 - 6.28$

(ii) $21.05 - 15.27$

(iii) $18.5 - 6.79$

Ans: (i) $9.756 - 6.28$

We know that $9.756 - 6.280 = 3.476$

(ii) $21.05 - 15.27$

We know that $21.05 - 15.27 = 5.78$

(iii) $18.5 - 6.79$

We know that $18.50 - 6.79 = 11.71$

17. Waheeda's school is at a distance of 5 km 350 m from her house. She travels 1 km 70 m on foot and the rest she travels by bus. How much distance does she travel by bus?

Ans: Distance of school from house = 5 km 350 m = 5.350 km

Distance travelled on foot = 1 km 70 m = 1.070 km

Consider x km as the distance travelled by bus

It can be written as

$$1.070 + x = 5.350$$

On further calculation

$$x = 5.350 - 1.070$$

So we get $x = 4.280$ km

Hence, the distance travelled by bus is 4.280 km.

SECTION – E

Questions 18 to 20 carry 4 marks each.

18. Gopal travelled 125.5 km by bus, 14.25 km by pony and the rest of distance to Kedarnath on foot. If he covered a total distance of 15 km, how much did he travel on foot?

Ans: Distance travelled by Gopal by bus = 125.5 km

Distance travelled by Gopal by pony = 14.25 km

Consider x km as the distance travelled on foot

We know that

Total distance = Distance travelled by Gopal by bus + Distance travelled by Gopal by pony +

Distance travelled by Gopal on foot

By substituting the values

$$150 = 125.5 + 14.25 + x$$

On further calculation

$$x = 150 - 125.5 - 14.25$$

We get, $x = 10.25$ km

Hence, the distance travelled by Gopal on foot is 10.25 km.

19. Express the following decimals as fractions in the lowest form:

(i) 5.25 (ii) 7.125 (iii) 0.18 (iv) 15.004

Ans: (i) 5.25

It can be written as

$$= 525/100$$

Dividing Numerator and Denominator by 25, we get

$$= 21/4$$

(ii) 7.125

It can be written as

$$= 7125/1000$$

Dividing Numerator and Denominator by 125, we get

$$= 57/8$$

(iii) 0.18

It can be written as

$$= 18/100$$

Dividing Numerator and Denominator by 2, we get

$$= 9/50$$

(iv) 15.004

It can be written as

$$= 15004/1000$$

Dividing Numerator and Denominator by 4, we get

$$= 3751/250$$

20. (a) Express as kilometer (km) using decimals:

(i) 5 m (ii) 55 m (iii) 555 m (iv) 5555 m

(b) Express as kilogram (kg) using decimals:

(i) 8 g (ii) 150 g (iii) 2750 g (iv) 5 kg 750 g

Ans: (a) (i) 5 m

We know that 1000 m = 1 km

So, we get 1 m = 1/1000 km

It can be written as 5 m = 5/1000 km

We get 5 m = 0.005 km

(ii) 55 m

We know that 1000 m = 1 km

So, we get 1 m = 1/1000 km

It can be written as 55 m = 55/1000 km

We get 55 m = 0.055 km

(iii) 555 m

We know that 1000 m = 1 km

So, we get 1 m = 1/1000 km

It can be written as 555 m = 555/1000 km

We get 555 m = 0.555 km

(iv) 5555 m

We know that 1000 m = 1 km

So, we get $1 \text{ m} = 1/1000 \text{ km}$

It can be written as $5555 \text{ m} = 5555/1000 \text{ km}$

We get $5555 \text{ m} = 5.555 \text{ km}$

(b) (i) 8 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So, we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as $8 \text{ g} = 8/1000$

We get $8 \text{ g} = 0.008 \text{ kg}$

(ii) 150 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So, we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as $150 \text{ g} = 150/1000$

We get $150 \text{ g} = 0.150 \text{ kg}$

(iii) 2750 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So, we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as $2750 \text{ g} = 2750/1000$

We get $2750 \text{ g} = 2.750 \text{ kg}$

(iv) 5 kg 750 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So, we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as $5 \text{ kg } 750 \text{ g} = 5 + 750/1000$

We get $5 \text{ kg } 750 \text{ g} = 5.750 \text{ kg}$

