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PRACTICE PAPER 03 (2023-24)
FRACTIONS AND DECIMALS (ANSWERS)

SUBJECT: MATHEMATICS **MAX. MARKS : 40**
CLASS : VI **DURATION : 1½ hr**

SECTION – A
Questions 1 to 6 carry 1 mark each.

1. What fraction of a day is 8 hours?
(a) $\frac{1}{3}$ (b) $\frac{3}{4}$ (c) $\frac{1}{2}$ (d) $\frac{4}{5}$
Ans: (a) $\frac{1}{3}$

2. Shubham painted $\frac{2}{3}$ of the wall and his sister painted $\frac{1}{3}$ of the wall space. How much did they paint together?
(a) $\frac{2}{3}$ (b) $\frac{1}{3}$ (c) 1 (d) $\frac{1}{2}$
Ans: (c) 1

3. The value of $1\frac{1}{3}+3\frac{2}{3}$ is
(a) $\frac{10}{3}$ (b) $\frac{6}{3}$ (c) $\frac{15}{3}$ (d) $\frac{15}{6}$
Ans: (c) $\frac{15}{3}$

4. $700 + 20 + 5 + \frac{9}{100}$ can be written in decimal form as
(a) 725.09 (b) 725.9 (c) 72.59 (d) 7.259
Ans: (a) 725.09

5. 725 Paisa in rupees can be written as
(a) 72.5 (b) 0.725 (c) 7.25 (d) 0.0725
Ans: (c) 7.25

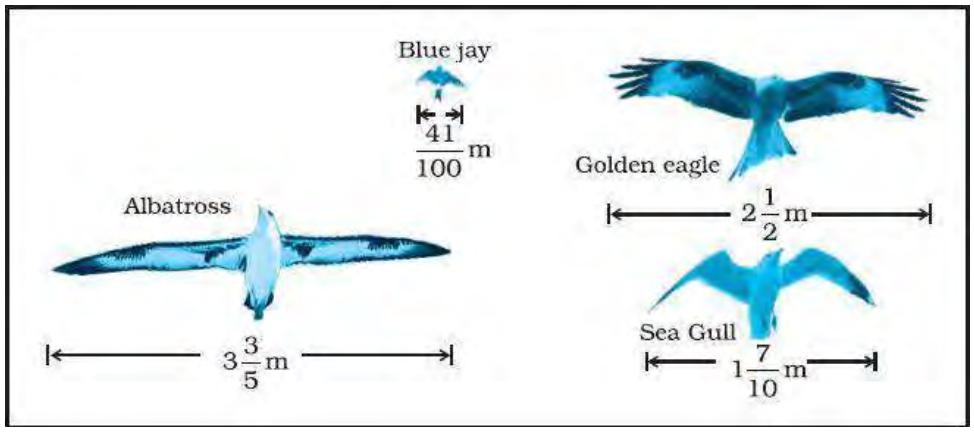
6. Find the value of 35 – 2.54
(a) 32.46 (b) 1.46 (c) 3.246 (d) 37.54
Ans: (a) 32.46

SECTION – B(CCT Questions)
Questions 7 to 10 carry 1 mark each.

CCT Question

The birds Blue Jay, Golden Eagle, Albatross & Sea Gull are some dangerous hunters with powerful wings. The wandering Albatross has the largest & most powerful wingspan among all the living birds. It is the only bird that can fly 10,000 miles without landing. The Golden Eagle is one of the best known birds of prey in the Northern Hemisphere. Seagulls are sea birds of the Laridae

family in the suborder Lari. Blue Jay is a passerine bird in the family of Corvidae, native to North America. The diagram shows the length of wingspans (approx. in metre) of these species of birds.



Answer the following questions based on the above information:

7. What is the difference between the wingspan of a Golden eagle and the wingspan of a Seagull?
(a) 36/10 (b) 209/100 (c) 17/10 (d) 80/100
Ans: (d) 80/100
The wingspan of golden eagle is 2 1/2m = 5/2m = 250/100m The wingspan of seagull is 1 7/10m = 170/100 m
Difference = 250/100 – 170/100 = 80/100

8. What is the difference between the wingspan of an Albatross and the wingspan of a Golden Eagle?
(a) 36/10 (b) 19/10 (c) 11/10 (d) 17/10
Ans: (c) 11/10
The wingspan of Albatross is 3 3/5m = 18/5m = 36/10m
The wingspan of Golden Eagle is 2 1/2 m = 25/10 m
Difference = 36/10 – 25/10 = 11/10

9. How much longer is the wingspan of an Albatross than the wingspan of a Sea gull?
(a) 19/10 (b) 209/100 (c) 17/10 (d) 80/100
Ans: (a) 19/10
The wingspan of Albatross is 3 3/5m = 18/5m = 36/10m
The wingspan of Sea gull is 1 7/10m = 17/10m
Difference = 36/10 - 17/10 = 19/10
Therefore, by comparing, 36/10 > 17/10, wingspan of Albatross is greater than wingspan of seagull by 19/10.

10. How much longer is the wingspan of a Golden eagle than the wingspan of a Blue jay?
(a) 19/10 (b) 209/100 (c) 17/10 (d) 80/100
Ans: (b) 209/100
The wingspan of golden eagle is 2 1/2m = 5/2m = 250/100m
The wingspan of blue jay is 41/100m
Difference = 250/100 - 41/100 = 209/100
Therefore, by comparing, 250/100 > 41/100, wingspan of golden eagle is greater than wingspan of blue jay by 209/100.

SECTION – C

Questions 11 to 13 carry 2 marks each.

11. Find fraction equivalent of 45/60, having:

(i) numerator 15

(ii) denominator 4

Ans: (i) $\frac{45}{60} = \frac{15}{Denominator}$

As $45 \div 3 = 15$, *we will divide both the numerator & denominator by* 3

$$\Rightarrow \left(\frac{\frac{45}{3}}{\frac{60}{3}} \right) = \frac{15}{20}$$

(ii) $\frac{45}{60} = \frac{Numerator}{4}$

As $60 \div 15 = 4$, *we will multiply both the numerator & denominator by* 15

$$\Rightarrow \left(\frac{\frac{45}{15}}{\frac{15}{15}} \right) = \frac{3}{4}$$

12. Victor drove 89.050 km on Saturday and 73.9 km on Sunday. How many kilometres more did he drive on Saturday?

Ans: Distance travelled on Saturday = 89.050 km

Distance travelled on Sunday = 73.9 km

Subtracting the distance travelled on Sunday from the distance travelled on Saturday

89.050 km - 73.9 km = 15.15 km

Therefore, Victor drove 15.15 km more on Saturday.

13. Which is greater? Give reason for your answer?

(i) 3.3 or 3.300

(ii) 1.431 or 1.439

Ans: (i) 3.3 = 3.300

The whole parts and the tenth parts are both equal.

(ii) 1.431 < 1.439

The whole parts, the tenth parts and the hundredth parts are all equal. Comparing the thousandth parts, we have 1 < 9.

Therefore, 1+ 4/10 + 3/100 + 1/1000 < 1+4/10 + 3/100 + 9/1000.

SECTION – D

Questions 14 to 17 carry 3 marks each.

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

(i) 0.5 (ii) 2.5 (iii) 0.60

Ans: (i) $0.5 = \frac{5}{10} = \frac{1}{2}$

(ii) $2.5 = \frac{25}{10} = \frac{0}{2}$

(iii) $0.60 = \frac{60}{100} = \frac{5}{5}$

15. Express as Rupee (Rs) using decimals:
(i) 5 paisa
(ii) 350 paisa
(iii) 2 rupees 60 paisa
Ans: (i) 5 paisa
We know that 100 paisa = Rs 1.
Therefore, 1 paisa = Rs 1/100.
5 paisa = 5/100 = Rs 0.05
(ii) 350 paisa
We know that 100 paisa = Rs 1.
Therefore, 1 paisa = Rs 1/100.
350 paisa = 350/100 = Rs 3.50
(iii) 2 rupees 60 paisa
We know that 100 paisa = Rs 1.
Therefore, 1 paisa = Rs 1/100.
2 rupees and 60 paisa = $2 + \frac{60}{100}$
= Rs 2.60

16. Savita bought $\frac{2}{5}$ m of ribbon and Kavita $\frac{3}{4}$ m of the ribbon. What was of the total length of the ribbon they bought?
Ans: Length of the ribbon bought by Savita = $\frac{2}{5}$ m
Length of the ribbon bought by Kavita = $\frac{3}{4}$ m
Total length of the ribbon bought by them = $\frac{2}{5} + \frac{3}{4}$
$= \frac{2 \times 4}{5 \times 4} + \frac{3 \times 5}{4 \times 5}$ (*Because LCM of* $5 \& 4$ *is* 20)
$= \frac{8}{20} + \frac{15}{20} = \frac{8+15}{20} = \frac{23}{20}$m

17. Ravish takes $2\frac{1}{5}$ minutes to walk across the school ground. Rahul takes $\frac{7}{4}$ minutes to do the same. Who takes less time and by what fraction?
Ans: Time taken by Ravish = $2\frac{1}{5} = \frac{(5 \times 2)+1}{5} = \frac{11}{5}$ minutes
Time taken by Rahul = $\frac{7}{4}$ minutes
LCM of 4 & 5 is 20, so will we convert each fraction into an equivalent fraction with denominator 20.
$\frac{11 \times 4}{5 \times 4}, \frac{7 \times 5}{4 \times 5} \Rightarrow \frac{44}{20} > \frac{35}{20}$
Rahul takes less time, i.e., $\frac{44}{20} - \frac{35}{20} = \frac{44-35}{20} = \frac{y}{20}$ minutes.

SECTION – E

Questions 18 to 20 carry 4 marks each.

18. Ruby bought a watermelon weighing 5 kg 200 g. Out of this she gave 2 kg 750 g to her neighbour. What is the weight of the watermelon left with Ruby?

Ans: Weight of the watermelon when bought

= 5 kg 200 g = 5.200 kg (we know that 1 kg = 1000 g)

Weight of the watermelon given to the neighbour = 2 kg 750 g= 2.750 kg

Therefore, weight of the watermelon left with Ruby = Weight of the watermelon when bought - weight of the watermelon given to the neighbour

= 5.200 kg - 2.750 kg = 2.450 kg

So, weight of the watermelon left with Ruby = 2.450 kg

19. Arrange the following fractions in the ascending order:

(i) $\frac{37}{47},\frac{37}{50},\frac{37}{100},\frac{37}{1000},\frac{37}{85},\frac{51}{41}$ (ii) $\frac{4}{6},\frac{3}{8},\frac{6}{12},\frac{5}{16}$

Ans: $(i)\frac{37}{47},\frac{37}{50},\frac{37}{100},\frac{37}{1000},\frac{37}{85},\frac{37}{41}$

When numerators are the same & denominators are different, then the fraction with greater denominators has a smaller value.

$\therefore \frac{37}{1000}<\frac{37}{100}<\frac{37}{85}<\frac{37}{50}<\frac{37}{47}<\frac{37}{41}$

(ii) $LCM\ of\ 6,8,12\ and\ 16\ is\ 48$

$\frac{4}{6}=\frac{4}{6}\times\frac{8}{8}=\frac{32}{48},\ \frac{6}{12}=\frac{6}{12}\times\frac{4}{4}=\frac{24}{48},\ \frac{3}{8}=\frac{3}{8}\times\frac{6}{6}=\frac{18}{48},\ \frac{5}{16}=\frac{5}{16}\times\frac{3}{3}=\frac{15}{48}$

When denominators are the same & numerators are different, then the fraction with greater numerator has a greater value.

$\therefore \frac{5}{16}<\frac{3}{8}<\frac{6}{12}<\frac{4}{6}$

20. Simplify: (i) $\frac{2}{3}+\frac{3}{4}+\frac{1}{2}$ (ii) $5\frac{6}{7}-2\frac{2}{3}$

Ans: (i) $\frac{2}{3}+\frac{3}{4}+\frac{1}{2}$

$=\frac{2\times4}{3\times4}+\frac{3\times3}{4\times3}+\frac{1\times6}{2\times6}$ $(Because\ LCM\ of\ 3,4\ \&\ 2\ is\ 12)$

$=\frac{8}{12}+\frac{9}{12}+\frac{6}{12}$

$=\frac{8+9+6}{12}=\frac{23}{12}$

(ii) $5\frac{6}{7}-2\frac{2}{3}=\frac{(7\times5)+6}{7}-\frac{(3\times2)+2}{3}=\frac{41}{7}-\frac{8}{3}$

$\frac{41\times3}{7\times3}-\frac{8\times7}{3\times7}$ $(Because\ LCM\ of\ 7\ \&\ 3\ is\ 21)$

$=\frac{123}{21}-\frac{56}{21}=\frac{123-56}{21}=\frac{67}{21}$