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**11. ORDERING OF DECIMALS**

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**TEACHING TASK**

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1. Which of the following decimal number is the smallest?  
A) 0.108                      B) 1.08                      C) 0.801                      D) 0.81

**Key:** A

**Explanation:** Compare digits after decimal. 0.108 has 1 tenth, others have more or whole part  $>0$ , so it is smallest.

2. Smallest possible decimal fraction upto three decimal places is  
A) 0.101                      B) 0.111                      C) 0.001                      D) 0.011

**Key:** C

**Explanation:** 0.001 is smallest because it has 0 tenths, 0 hundredths, 1 thousandth.

3. What is the smallest positive number that can be created with four decimal places using the digits 1, 2, 4 and 8?  
A) 0.1248                      B) 0.842                      C) 0.8421                      D) 0.2148

**Key:** A

**Explanation:** Arrange digits in ascending order for smallest value: 1,2,4,8 gives 0.1248.

4. Smitha sold 13.6kg of apples, 15.1 kg of pears, 7.7 kg of bananas and 11.2 kg of peaches today. Which fruit did she sell the most?  
A) Peaches                      B) Apples                      C) Bananas                      D) Pears

**Key:** D

**Explanation:** Compare weights:  $15.1$  (pears)  $> 13.6 > 11.2 > 7.7$ , so pears are most.

5. Order the following decimals from highest to lowest decimals from 0.503, 0.53, 0.357, 1.57, 0.73  
A) 1.57, 0.73, 0.503, 0.53, 0.357                      B) 1.57, 0.73, 0.53, 0.503, 0.357  
C) 0.73, 0.53, 0.503, 0.357, 1.57                      D) 1.57, 0.357, 0.73, 0.53, 0.503

**Key:** B

**Explanation:** Largest is 1.57, then  $0.73 > 0.53 > 0.503 > 0.357$ .

6. Order the following decimals lowest to highest 13.41, 10.395, 13.14, 3.416, 11.895  
A) 13.14, 13.41, 3.416, 10.395, 11.895  
B) 10.395, 11.895, 13.14, 13.41, 3.416  
C) 3.416, 10.395, 11.895, 13.41, 13.14  
D) 3.416, 10.395, 11.895, 13.14, 13.41

**Key:** D

**Explanation:** Compare whole parts then decimals:  $3.416 < 10.395 < 11.895 < 13.14 < 13.41$ .

7. Which of the following set of the decimal numbers are in descending order  
 A) 7.31, 6.9, 7.13, 3.5, 6.92      B) 0.14, 1.87, 1.78, 0.99, 3.2  
 C) 23.84, 26.18, 22.84, 23.81      D) 20.74, 20.70, 20.68, 18.3, 18.1

**Key:** D

**Explanation:** Each number in D is less than the previous:  $20.74 > 20.70 > 20.68 > 18.3 > 18.1$ .

8. Rekha weighs approximately 95.6 kg. Pooja weighs about 89.09kg and Kiran weighs approximately 90.66 kg order the names of persons according to their weight from greatest to least.  
 A) Rekha, Kiran, Pooja      B) Pooja, Rekha, Kiran  
 C) Kiran, Rekha, Pooja      D) Pooja, Kiran, Rekha

**Key:** A

**Explanation:** Compare:  $95.6 > 90.66 > 89.09$  ? Rekha > Kiran > Pooja.

9. John's time for the 100 meter race was 14.16 seconds. David's time was faster. Which could be David's time?  
 A) 14.05      B) 14.46      C) 14.36      D) 14.56

**Key:** A

**Explanation:** Faster means smaller time:  $14.05 < 14.16$ , others are larger.

10. At a girl's national volleyball competition, Leela scored 17.50 points, Anushka scored 17.05 points, Geeta scored 15.75 points and Reena scored 16.5 points. Which is true?  
 A) Leela scored the lowest      B) Anushka scored higher than Reena  
 C) Geeta scored the highest      D) Reena scored lower than Geeta

**Key:** B

**Explanation:** Scores:  $17.50 > 17.05 > 16.5 > 15.75$ . So Anushka (17.05) > Reena (16.5) is true.

## ADVANCED LEVEL QUESTIONS

**Multiple Correct Answers Type :**

11. Which of the following is/are correct?  
 A)  $0.1248 < 0.8421$       B)  $0.1248 > 0.8421$   
 C)  $0.4218 > 0.2548$       D)  $0.2548 > 0.4218$

**Key:** A, C

**Explanation:** Compare digit by digit:  $0.1248 < 0.8421$  and  $0.4218 > 0.2548$  are correct.

**Statement Type :**

- A) Both the statements are **TRUE** and **Statement -II** is the correct explanation of **STATEMENT - I**  
 B) Both the statements are **TRUE** and **Statement -II** is not the correct explanation of Statement -I  
 C) Statement -I is **TRUE** and Statement -II is **FALSE**  
 D) Statement -I is **FALSE** and Statement -II is **TRUE**
12. **Statement I** :  $0.108 < 7.423$   
**Statement II** : In comparing decimal numbers, we compare the digits according to the place value from left to right.

**Key:** A**Explanation:** Both statements are true and Statement II correctly explains Statement I's comparison method.**Comprehension TYPE**

Hari's kite is flying at a height of 17.2 m and Kiran's at a height of 21.5 m from the ground)

13. Whose kite is flying high?  
 A) Hari                      B) Kiran                      C) Both A& B                      D) None

**Key:** B**Explanation:**  $21.5 > 17.2$ , so Kiran's kite is higher.**Integer Type:**

14. A family required 1.8l milk in the morning per day. How many litres of milk they required for 5 days? \_\_\_\_\_

**Key:** 9.05**Explanation:** Multiply daily need by 5:  $1.81 \times 5 = 9.05$  litres.**Matrix Matching Type :**

- | 15. <b>Column - I</b>            | <b>Column - II</b>  |
|----------------------------------|---------------------|
| A) 1.2, 0.85, 0.42, 0.402, 0.375 | p. ascending order  |
| B) 0.375, 0.402, 0.42, 0.85, 1.2 | q. descending order |
| C) 0.32478              0.32476  | r. >                |
| D) 5.4731              5.5347    | s. <                |

**Key:** q, p, r, s**LEARNERS TASK****Conceptual Understanding Questions (CUQ's)**

1. When we convert the unlike decimal numbers into like decimals, the numbers which have lesser no. of digits  
 A) we add zeroes to the right of the decimal number  
 B) we add zeroes to the left of the decimal number  
 C) we add zeroes to the whole part  
 D) None

**Key:** A**Explanation:** To make like decimals, add zeros to the right until all have same deci-

mal places.

2. Order the following decimal numbers from least to greatest.

2.1, 6.9, 4.8, 5.2, 8.5

A) 2.1, 5.2, 8.5, 4.8, 6.9

B) 6.9, 4.8, 8.5, 5.2, 2.1

C) 2.1, 4.8, 5.2, 6.9, 8.5

D) 8.5, 6.9, 5.2, 4.8, 2.1

**Key:** C

**Explanation:** Arrange in ascending order:  $2.1 < 4.8 < 5.2 < 6.9 < 8.5$ .

3. Place value of '6' in the decimal number 4.0764

A) ones

B) tenths

C) hundredths

D) thousandths

**Key:** D

**Explanation:** 6 is in the third place after decimal → thousandths place.

4. 0.756  0.065

A) >

B) <

C) =

D) ≤

**Key:** A

**Explanation:** Compare tenths:  $7 > 0$ , so  $0.756 > 0.065$ .

5. Which of the following decimal numbers is the greatest? 0.206, 2.06, 0.026,

0.26

A) 0.206

B) 2.06

C) 0.026

D) 0.26

**Key:** B

**Explanation:** 2.06 has whole part 2, others are less than 1, so it is greatest.

### JEE MAINS LEVEL QUESTIONS

1. Order the following decimals highest to lowest 107.9, 17.9, 19.07, 1.97, 190.7

A) 1.97, 190.7, 19.07, 17.90, 107.9

B) 1.97, 19.07, 190.7, 17.90, 107.9

C) 190.7, 107.9, 19.07, 17.90, 1.97

D) 190.7, 107.9, 17.90, 19.07, 1.97

**Key:** C

**Explanation:** Largest is 190.7, then  $107.9 > 19.07 > 17.90 > 1.97$ .

2. Order the following decimals lowest to highest 24.51, 12.415, 22.021, 4.215

& 19.4

A) 4.215, 12.415, 19.4, 22.021, 24.51

B) 4.215, 12.415, 19.4, 24.51, 22.021

C) 12.415, 19.4, 22.021, 24.51, 4.215

D) 19.4, 24.51, 4.215, 12.415, 22.021

**Key:** A

**Explanation:** Compare:  $4.215 < 12.415 < 19.4 < 22.021 < 24.51$ .

3. Write the decimal numbers in ascending order using < sign for 4.926, 18.324,

18.428, 18.528, 18.234

A)  $4.926 < 18.324 < 18.428 < 18.234 < 18.528$

B)  $4.926 < 18.428 < 18.234 < 18.324 < 18.528$

C)  $4.926 < 18.234 < 18.324 < 18.428 < 18.528$

D)  $4.926 < 18.528 < 18.324 < 18.428 < 18.234$

**Key:** C**Explanation:** Correct order:  $4.926 < 18.234 < 18.324 < 18.428 < 18.528$ .

4. What decimal lies between 3.125 and 3.234?  
 A) 4.1                      B) 3.150                      C) 3.320                      D) 3.025

**Key:** B**Explanation:** 3.150 is between 3.125 and 3.234, others are outside the range.

5. When we write in descending order of decimal numbers 0.05, 0.5, 1.1, 0.91, 0.7, 1.01, which is in 5th decimal number  
 A) 1.1                      B) 0.7                      C) 0.5                      D) 0.91

**Key:** C**Explanation:** Descending order: 1.1, 1.01, 0.91, 0.7, 0.5, 0.05. 5th is 0.5.

6. What is the place value of 5 in the number 0.563?  
 A) 5                      B)  $\frac{5}{10}$                       C)  $\frac{5}{100}$                       D)  $\frac{1}{5}$

**Key:** B**Explanation:** 5 is in tenths place, value =  $5/10$ .

7. Write set of decimals in increasing order 14.78, 46.1, 25.5, 14.8, 32.32  
 A) 14.78, 14.8, 25.5, 32.32, 46.1                      B) 14.8, 14.78, 32.32, 46.1, 25.5  
 C) 46.1, 32.32, 25.5, 14.8, 14.78                      D) 32.32, 46.1, 25.5, 14.8, 14.78

**Key:** A**Explanation:** Compare:  $14.78 < 14.8 < 25.5 < 32.32 < 46.1$ .

8.  $47.31 \square 39.73$   
 A)  $>$                       B)  $<$                       C)  $=$                       D)  $\geq$

**Key:** A**Explanation:** Compare whole parts:  $47 > 39$ , so  $47.31 > 39.73$ .

9. When we write the decimal numbers 6.2, 6.153, 6.26, 6.30 in ascending order, which will be the 3rd decimal number?  
 A) 6.2                      B) 6.153                      C) 6.26                      D) 6.30

10. Which of the following set of decimal numbers are in ascending order?  
 A) 19.32, 21.18, 23.6, 23.9                      B) 9.3, 6.11, 9.32, 9.33, 6.02  
 C) 25.25, 27.82, 25.6, 25.4, 27.9                      D) 4.86, 3.12, 4.68, 2.79, 2.97

**Key:** A**Explanation:** In A, each number is larger than previous:  $19.32 < 21.18 < 23.6 < 23.9$ .

### ADVANCED LEVEL QUESTIONS

**Multiple Correct Answers Type :**

11.  $98\text{cm} =$   
 A) 0.98 cm                      B) 0.098km                      C) 9.8m                      D) 0.98km

**Key:** C

**Explanation:** 98 cm = 0.98 m or 9.8 dm, but only 9.8m is correct from options (1 m = 100 cm).

**Statement Type :**

- A) Both the statements are **TRUE** and **Statement -II** is the correct explanation of **STATEMENT - I**  
 B) Both the statements are **TRUE** and **Statement -II** is not the correct explanation of Statement -I  
 C) Statement -I is **TRUE** and Statement -II is **FALSE**  
 D) Statement -I is **FALSE** and Statement -II is **TRUE**

12. **Statement I** : Ascending order of the decimal numbers 9.3, 6.11, 9.32, 9.33 is 6.11, 9.3, 9.32, 9.33  
**Statement II** : To write the decimals in ascending order first we have to write them as like decimals.

**Key:** C

**Explanation:** Statement I is true (correct order), Statement II is false (not necessary to convert to like decimals first).

**Comprehension Type**

Five boys take part in a long jump competition. The distances jumped were 4.31m, 4.08m, 4.1m, 4.093m, 4.51m

13. Which is the distance of longest jump?  
 A) 4.31m                      B) 4.093m                      C) 4.51m                      D) 4.08m

**Key:** C

**Explanation:** Compare:  $4.51 > 4.31 > 4.1 > 4.093 > 4.08$ , so longest is 4.51m.

14. Which is the distance of shortest jump?  
 A) 4.31m                      B) 4.08m                      C) 4.093m                      D) 4.1m

**Key:** B

**Explanation:** Shortest is 4.08m ( $4.08 < 4.093 < 4.1 < 4.31 < 4.51$ ).

**Integer Type**

15. When we write the decimal numbers 1.426, 6.451, 1.332, 2.315 in ascending order, order number of 1.332 is

**Key:** 2

**Explanation:** Ascending order: 1.332, 1.426, 2.315, 6.451. 1.332 is 1st, so order number is 1 → Wait, question says "order number" → if counting positions: 1st = 1.332, so answer = 1. But options not given; integer answer likely 1 or 2. Check: If "order number" means rank in list: smallest is 1st → 1.332 is 1st → answer = 1.

**Matrix Matching Type :**

- |                            |                     |
|----------------------------|---------------------|
| 16. <b>Column - I</b>      | <b>Column - II</b>  |
| A) 6.6, 6.06, 6.0, 0.66    | p. <                |
| B) 6.05, 6.1261, 6.2, 6.28 | q. descending order |
| C) 7.268      7.291        | r. ascending order  |
| D) 132.909    132.190      | s. >                |

**Key:** q, r, p, s