(Cosmo School

Work Sheet – 05 (Mathematics) for class – Ten (28.10.2020)

Chapter – Four, Exercise - 4.3 **Exponents and Logarithms**

Creative Multiplication Choice Questions

1.	What	is	the	scientific	number	of
	0.0000	6030		[R.B 20]		

- a) 0.60302×10^{-4}
- b) 6.0302×10^{-5}
- c) 60.302×10^{-6}
- d) 603.02×10^{-7}
- 2. What are the characteristics of the log of the number 6.34? [Ctg.B.- 20]
 - a) 2
- b) 1
- c) 0
- d) -1
- 3. What is the characteristic of the common log of 0.0035? [S.B.-20]
 - a) 3
- b) 1
- c) <u>2</u>
- d) $\bar{3}$
- 4. What is the characteristic of common log of the number 0.000000037? [B.B.- 20]
 - a) $\overline{11}$
- b) $\overline{10}$
- c) $\bar{9}$
- d) 8
- 5. What are the characteristics number 0.00357? [D.B.- 19]
 - a) $\overline{3}$
- c) $\overline{2}$
- 6. Express 0.0426 in scientific form then What is correct answer of the following?

[R.B.- 19]

- b) 4.26×10^2
- 4.26×10^{-1}
- d) 4.26×10^{-3}
- 7. What is the characteristic of log of the number 0.000045? [C.B.- 19]
 - a) $\overline{5}$
- b) $\overline{4}$
- c) 4
- d) 5
- What are the characteristics of log of 8. the number 3784.8? [All B.- 18]
 - a) 4
- b) 3
- c) 2
- d) 1
- 9. Which one of the following is scientific form of 0.0336? [S.B.- 17]

 - a) 3.36×10^4
- b) 33.6×10^{-4}
- c) 3.36×10^{-2}
- d) 0.336×10^{-2}

10. What is the characteristic of the common log of the number 20.20?

[Ctg.B.- 17]

- a) -1
- b) 0
- c) 1
- d) 2
- 11. What is the characteristic of the logarithm of the number 35.37?

[C.B.- 17]

- a) -1
- b) 1
- c) 3
- d) 4
- Which one of the following is the **12.** scientific form of 0.0261? [S.B.- 16]
 - a) 2.61×10^{-6}
- b) 2.61×10^{-2}
- c) 2.61×10^2
- d) 2.61×10^4
- What are the characteristics of log of 13. the number 0.000435? [Dj.B.- 16]
- b) 3

- d) $\overline{3}$
- 14. In respect of logarithm [B.B.- 16]
 - 10 is considered as the base of common logarithm.
 - ii. Characteristics of the log of the number 5.34 is 0.
 - iii. $\log_a M + \log_a N = \log_a (M + N)$.

Which one of the following is correct?

- a) i and ii
- b) i and iii
- c) ii and iii
- d) i, ii and iii
- 15. What is the characteristic of the common log of the number 0.000345?

[D.B.- 15]

- a) $\overline{5}$
- b) $\overline{4}$
- c) 3
- d) 4
- 16. What is the condition to write a number in the form of $p \times 10^{m}$? [D.B.- 15]
 - a) 1
- b) $1 \le p < 10$
- c) $1 \le p \le 10$
- d) 1
- 17. What is the characteristic of the common log of 62.542? [R.B.- 15]
 - a) 0
- b) 1
- c) 2
- d) 3
- 18. $a \times 10^n$ is the scientific form where -

[C.B.-15]

- a) 1 < a < 10
- b) $1 < a \le 10$
- c) $1 \le a \le 10$
- d) $1 \le a < 10$
- What is the characteristic of the **19.** common log of 0.0035?

answer to the following a								
Co	nsidering	the	numb					
c)	$\overline{2}$		d)	3				
a)	3		b)	1				

Considering the number 0.0225 answer to the following questions No. (20-22):

- 20. Which one of the following is in the form a^n ?
 - a) $(2.5)^2$
- b) $(0.015)^2$
- c) $(1.5)^2$
- d) $(0.15)^2$
- 21. Which one the following is the scientific form of the number?
 - a) 225×10^{-4}
- b) 22.5×10^{-3}
- c) 2.25×10^{-2}
- d) 0.225×10^{-1}
- 22. What is the characteristic of the common log of the number?
 - a) $\overline{2}$
- b) 1
- c) 0
- d) 2
- 23. What is the characteristic of the common log of (0.00035)?
 - a) 3
- b) 1
- c) 2
- d) 3
- 24. For convenience, very large or small number is expressed in the scientific form as
 - i. $a \times 10^n$ such that $1 \le a < 10$ and $n \in N$.
 - ii. $a \times 10^n$ such that $1 \le n < 10$ and $a \in Z$.
 - iii. $a \times 10^n$ such that $0 \le a < 10$ and $n \in \mathbb{Z}$.

Identify the correct option on the basis of the above information

- a) I
- b) Ii
- c) iii
- d) i, ii and iii
- 25. What are the characteristics of log 0.0768?
 - a) 0.885
- b) 0.115
- c) $\overline{2}$
- d) 1
- 26. What is the characteristic of common logarithm of 0.0035?
 - a) 3
- b) 1
- c) $\overline{2}$
- d) $\overline{3}$
- 27. Which one is the scientific form of the number 0.0225?
 - a) 225×10^{-4}
- b) 22.5×10^{-3}
- c) 2.25×10^{-2}
- d) 22.5×10^{-1}

- 28. What is the condition to write the number of $p \times 10^{m}$?
 - a) 1
- b) $1 \le p < 10$
- c) $1 \le p \le 10$
- d) 1
- 29. Which one is the following being the scientific form of the number?
 - a) 125×10^{-4}
- b) 12.5×10^{-3}
- c) 1.25×10^{-2}
- d) 125×10^{-1}
- 30. Which one is the scientific form of the number of the following?
 - a) 51.2×10^{-4}
- b) 5.12×10^{-4}
- c) 512×10^{-3}
- d) 0.512×10^{-3}
- 31. Which one is the scientific form of 0.0225?
 - a) 225×10^{-4}
- b) 22.5×10^{-3}
- c) 2.25×10^{-2}
- d) 225×10^{-1}

Answer to the questions no. (32 - 33) with the information given below:

- 0.000567 is a decimal number.
- 32. Which one is the scientific form of the number?
 - a) 567×10^{-4}
- b) 56.7×10^{-5}
- c) 5.67×10^{-4}
- d) 0.56×10^{-5}
- 33. What is the characteristic of the common log of the number?
 - a) 4
- b) 3
- c) $\overline{3}$
- d) $\overline{4}$
- 34. Which of the following number is written standard scientific form?
 - a) 55.70×10^2
- b) 5.570×10^3
- c) 0.5570×10^4
- d) 557×10^{1}
- 35. The standard form of the scientific number is $a \times 10^n$ then Which of the following is correct limit of the value of a?
 - a) -10 < a < 10
- b) $1 \le a < 10$
- c) $1 \le a \le 10$
- d) a > 10
- 36. If the distance between the Sun and Venus is 105600000 then which of the following is standard form of the distance?
 - a) 1.56×10^{-8}
- b) 1.056×10^{-7}
- c) 1.056×10^8
- d) 1.56×10^8