INDIAN SCHOOL AL WADI AL KABIR

Department of Mathematics, 2020-2021

Class XI **APPLIED MATHEMATICS (241)** 26.11.2020

WORKSHEET- Numerical Applications

Q.1.	$If\ \log(x+1)+\log(x-1)=24, then\ x$							
	A	1	**B**	25	**C**	5	**D**	None of these
Q.2.	$2log3-\frac{1}{2}log25+log10=logx, then\ x$							
	A	300	**B**	18	**C**	750	**D**	150
Q.3.	$If\ 9^{2x}=\frac{1}{81}, then\ x$							
	A	1	**B**	$\frac{1}{2}$	**C**	-1	**D**	None of these
Q.4.	$If\ log_{0.5}(64)=x, then\ x$							
	A	-6	**B**	-4	**C**	6	**D**	4
Q.5.	The value of $\frac{log27-log3}{log243}$							
	A	$\frac{1}{4}$	**B**	$-\frac{2}{5}$	**C**	$\frac{1}{3}$	**D**	$\frac{2}{5}$
Q.6.	The angle between two hands of a clock at 8:30am is							
	A	75^0	**B**	80^0	**C**	85^0	**D**	45^0
Q.7.	The average of 100 numbers is 50. If one of the number which was 50 is replaced by 150, the new average will be							
	A	101	**B**	51	**C**	50.5	**D**	49.5

Q.8.	What was the day on 15th August, 1947?							
	A	Friday	**B**	Saturday	**C**	Sunday	**D**	Monday
Q.9.	The average marks of 15 students is 45. If average marks of first 8 students is 48 and that of the last 8 students Is 42. Then the marks obtained by the 8th student is							
	A	42	**B**	48	**C**	46.5	**D**	45
Q10.	A clock loses 5 minutes every hour and was set right at 9:00am on Sunday. When it will show the correct time again?							
	A	8:00am Friday	**B**	9:00am Saturday	**C**	10:00am Sunday	**D**	11:00am Monday
Q11.	A can do a piece of work in 10 days. B can do the same work alone in 15 days. If they work together. Then the number of days to finish the work is							
	A	4days	**B**	5 days	**C**	6days	**D**	8 days
Q12.	Two trains running opposite directions at the speed of 36km/h and 54km/h crosses each other in 8 seconds. If the length of first train is 80m, then the length of the second train is							
	A	90m	**B**	100m	**C**	110m	**D**	120m
Q13.	Taps A and B can fill a tank in 2 hours and 3 hours respectively and tap C can empty it in 6hours. If all the three taps are opened together when the tank is empty, then time required to fill the tank is							
	A	1 hour	**B**	1 hour 30 minutes	**C**	2 hours	**D**	3 hours
Q14.	If a man covers a distance at 4km/h in 3 hours 30 minutes, then the time required to cover the same distance at 21km/h is							
	A	1 hour	**B**	2 hours	**C**	40 minutes	**D**	1 hour 20 minutes
Q15.	A is twice efficient as B. They together can finish a piece of work in 50 days. In how many days B can finish the same work alone?							
	A	150 days	**B**	75 days	**C**	80 days	**D**	160 days
Read the following information carefully and answer the questions given below. (V. S. A. – 1mark each)								
Eight friends A, B, C, D, E, F, G and H are sitting in a row. E is at one end of the row. B is seated adjacent to F and E. C is to the immediate right of D and at fourth place to the right of A. H is immediate left of G. G is at fifth place to the left of E.								
Q16.	Write the seating arrangement.							

Q17.	If E is at one end of the row, who is at other end of the row?
Q18	What is the position of C w.r.t. E?
Q19.	Write the neighbors of D.
Q20.	If all of them are allowed to sit alphabetically, then the positions of how many friends will remain unchanged?

ANSWERS									
1.	C	**2.**	B	**3.**	C	**4.**	A	**5.**	D
6.	A	**7.**	B	**8.**	A	**9.**	D	**10.**	B
11.	C	**12.**	D	**13.**	B	**14.**	C	**15.**	A
16.	AHGDCFBE		**17**.	A	18.	3rd to the left		**19.**	G and C
20.	3								

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