

X- Mathematics Assignment No-09- Arithmetic ProgressionM. C. Q.Q1. The sum to n terms of the series

$$1+2+3+\dots+n \text{ is}$$

- (i) $\frac{n(n+1)}{2}$ (ii) $\frac{n+1}{2}$ (iii) $\frac{n(n-1)}{2}$ (iv) $\frac{n}{2}$

Q2. The general term of

 $a, a+d, a+2d, \dots$ is

- (i) $a+(n+1)d$ (ii) $a+(n-1)d$ (iii) $n+(a-1)d$
 (iv) none of these

Q3. The sum to n terms of Series
 $a, a+d, a+2d, \dots$ is

- (i) $\frac{n}{2}[2a+(n+1)d]$ (ii) $\frac{n}{2}[a-d]$
 (iii) $\frac{n}{2}[a+d]$ (iv) $\frac{n}{2}[a+(n-1)d]$

Q4. 50th term of 1, 3, 5, ...

- (i) 96 (ii) 97 (iii) 98 (iv) 99

Cont Pg-2

Q5. If x, y, z are in A.P
then

- (i) $y = \frac{x+z}{2}$
- (ii) $x = \frac{y+z}{2}$
- (iii) $z = \frac{x+y}{2}$
- (iv) $y = \frac{x-z}{2}$

Q6. Three special numbers of A.P are

- (i) $a, a-d, a+d$
- (ii) $a-d, a, a+d$
- (iii) $a-d, a+d, a$
- (iv) $a, a+d, a-d$

Q7. n^{th} term of the sequence

$$1^2, 3^2, 5^2, 7^2, \dots$$

- (i) n^2
- (ii) $(n+1)^2$
- (iii) $(2n-1)^2$
- (iv) $(2n+1)^2$

Q8. Sum of first 10 natural numbers
Starting from 48

- (i) 500
- (ii) 515
- (iii) 520
- (iv) 525

Q9. If $a_n = 2n+1$, then a_{n-1} is

- (i) $2n-1$
- (ii) $2n+1$
- (iii) $2n-2$
- (iv) $2n+2$

Q10. If $a_n = \frac{(-1)^n + (3)^n}{n-1}$, 3rd term

of this sequence is

- (i) 15 (ii) 13 (iii) 11 (iv) 9

Q11. In an AP, what does $(t_n - t_{n-1})$ represent?

- (i) 3d (ii) 2d (iii) d (iv) (-d)

Q12. If in an AP, $a = 3$, $d = -1$, then 50th term will be

- (i) 46 (ii) 45 (iii) -45 (iv) -46

Q13. Which term of AP 1, 6, 11, 16 ... is 81?

- (i) 17 (ii) 18 (iii) 19 (iv) 20

Q14. If n^{th} term of an AP is $3n+2$, what will be its 4th term

- (i) 15 (ii) 14 (iii) 13 (iv) 12

Q15. $t_{m+n} + t_{m-n} =$ how many times t_m

- (i) 1 (ii) 2 (iii) 3 (iv) 4

ANSWERS:-				
(Q1) (i)	(Q4) (iv)	(Q7) (iii)	(Q10) (ii)	(Q13) (i)
(Q2) (ii)	(Q5) (i)	(Q8) (iv)	(Q11) (iii)	(Q14) (iii)
(Q3) (iii)	(Q6) (ii)	(Q9) (i)	(Q12) (iv)	(Q15) (ii)