

# DL Assignment-01

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## 1 [Page 94-to-97] 2019A7PS0097P

(d) 3.695

1. For all integral values of  $n$ , the largest number that exactly divides each number of the sequence  $(n-1)n(n+1)$ ,  $n(n+1)(n+2)$ ,  $(n+1)(n+2)(n+3)$ , ... is
  - (a) 2
  - (b) 3
  - (c) 6
  - (d) 12
2. If  $1 \times 2 \times 3 \times \dots \times n$  is denoted by  $\lfloor n$ , then  $(\lfloor 8 - \lfloor -6)$  is equal to
  - (a)  $6 \times 7 \times \lfloor 8$
  - (b)  $6 \times 8 \times 16$
  - (c)  $7 \times 8 \times 6$
  - (d)  $7 \times 8 \times \lfloor 7$
3. The value of  $\frac{3}{1^2 2^2} + \frac{5}{2^2 3^2} + \frac{7}{3^2 4^2} + \frac{9}{4^2 5^2} + \frac{11}{5^2 6^2} + \frac{13}{6^2 7^2} + \frac{15}{7^2 8^2} + \frac{17}{8^2 9^2} + \frac{19}{9^2 10^2}$  is
  - (a) 1
  - (b)  $\frac{1}{100}$
  - (c)  $\frac{99}{100}$
  - (d)  $\frac{101}{100}$
4.  $(1^2 + 2^2 + 3^2 + \dots + 10^2)$  is equal to [SSC CISC 2010]
  - (a) 392
  - (b) 390
  - (c) 385
  - (d) 380
5.  $[1^3 + 2^3 + 3^3 + \dots + 9^3 + 10^3]$  is equal to
  - (a) 2525
  - (b) 3025
  - (c) 3575
  - (d) 5075
6. If  $1^3 + 2^3 + \dots + 9^3 = 2025$ , then the value of  $(0.11)^3 + (0.22)^3 + \dots + (0.99)^3$  is close to
  - (a) 0.2695
  - (b) 0.3695
  - (c) 2.695
7. If  $1^2 + 2^2 + 3^2 + \dots + x^2 = \frac{x(x+1)(2x+1)}{6}$ , then  $1^2 + 3^2 + 5^2 + \dots + 19^2$  is equal to
  - (a) 2500
  - (b) 2485
  - (c) 2100
  - (d) 1330
8. If  $1^3 + 2^3 + \dots + 10^3 = 3025$ , then  $4 + 32 + 108 + \dots + 4000$  is equal to
  - (a) 12400
  - (b) 12200
  - (c) 12100
  - (d) 12000
9. 5 years ago the average age of a family which includes father, mother and a son was 35 years. 3 years ago the average age of father and mother was 46 years. What is the present age (in years) of the son? [SSC CGL 2017]
  - (a) 20
  - (b) 22
  - (c) 24
  - (d) 26
10. The average of the present ages of Sanjay and Vijay is 32 years. If Sanjay is 6 years older than Vijay, what is Vijay's present age? [SSC Steno 2016]
  - (a) 19 years
  - (b) 26 years
  - (c) 29 years
  - (d) 38 years
11. A man was 32 years old when he had his first son. His wife was 35 years old when his son attained the age of 7 years. The difference between the ages of the father and the mother is [SSC CGL 2016]
  - (a) 3 years
  - (b) 4 years
  - (c) 5 years
  - (d) 7 years

12. At present, the ratio between the ages of Ajay and Bimal is 4 : 3. After 6 years, Ajay's age will be 26 years. What is the age of Bimal at present? [SSC CGL 2016]
- 12 years
  - 14 years
  - 15 years
  - 18 years
13. Bhanu is as much younger to Chetan as he is older to Dev. If the total of the ages of Chetan and Dev is 48 years, how old is Bhanu? [SSC CGL 2016]
- 16 years
  - 18 years
  - 22 years
  - 24 years
14. A mother is five times older than her daughter. After 5 years, she would be 3 times older than her daughter. Find the mother's present age. [SSC CGL 2016]
- 20 years
  - 22 years
  - 25 years
  - 29 years
15. The sum of the ages of 4 children born at intervals of 4 years each is 60 years. What is the age of the youngest child? [SSC CGL 2016]
- 8 years
  - 9 years
  - 10 years
  - 12 years
16. Two years ago, Manu was three times as old as his son and two years hence, twice her age will be equal to five times that of her son. Find Manu's present age. [SSC CGL 2016]
- 34 years
  - 36 years
  - 38 years
  - 42 years
17. Abeer is 8 years younger than his brother Aman. How old will Aman be when he is twice as old as Abeer? [SSC CGL 2016]
- 4 years
  - 6 years
  - 8 years
  - 16 years
18. Mohit, who is 20 years old, is 4 times as old as Anu. What will be Anu's age when Mohit is twice as old as her? [SSC 2015]
- 15 years
  - 17 years
  - 30 years
  - 35 years
19. The sum of the present ages of a father and his son is 60 years. Six years ago, the father's age was five times the age of the son. After 6 years, the son's age will be [SSC CGL 2016]
- 18 years
  - 20 years
  - 24 years
  - 26 years
20. Vivek and his father have an age difference of 35 years now. After 5 years, the sum of their ages will be 125. What will be the ages in years of Vivek and his father after 12 years from now?
- 40 and 75
  - 45 and 80
  - 47 and 82
  - 52 and 87
21. Sachin is 60 years old. Amit is 5 years junior to Sachin and 4 years senior to Chetan. Sahil is the youngest brother of Chetan and he is 6 years junior to him. What is the age difference between Sachin and Sahil? [SSC CGL 2013, 14]
- 6 years
  - 9 years
  - 12 years
  - 15 years
22. X is four years older than Y, who is twice as old as Z. If the total ages of X, Y and Z is 34, how old is X? [SSC CGL 2013, 14]
- 6 years
  - 10 years
  - 12 years
  - 16 years
23. Mrs. Prema was 3 times as old as her son 8 years ago. Their total age is 64 years now. How old (in years) is Mrs. Prema now?
- 24
  - 36
  - 44
  - 48
24. A father said to his son, "I was as old as you are, at the time of your birth." If the father's age is 52 years now, then the son's age 8 years back was

- (a) 10 years  
(b) 12 years  
(c) 18 years  
(d) 20 years
25. The average age of a father and his son is 22 years. The ratio of their ages is 10 : 1 respectively. What is the age of the son? [SSC CGL 2013]  
(a) 4 years  
(b) 24 years  
(c) 32 years  
(d) 40 years
26. A person's present age is two-fifth of the age of his mother. After 8 years, he will be one-half of the age of his mother. How old is the mother at present?  
(a) 32 years  
(b) 36 years  
(c) 40 years  
(d) 48 years
27. A father's age is three times that of his elder daughter. Five years back, his age was eight times that of his younger daughter. If the difference between the ages of the two daughters is 5 years, what is the age of the father now? [SSC 2012]  
(a) 45 years  
(b) 50 years  
(c) 55 years  
(d) 60 years
28. Nikhil was born 5 years before Aman, Aman is 3 years younger to Vijay. If Nikhil is now 17 years old, how old is Vijay? [SSC FCI 2012]  
(a) 8 years  
(b) 12 years  
(c) 15 years  
(d) 19 years
29. In a family, the mother's age is twice that of daughter's age. The father is 10 years older than the mother. The son is 20 years younger than his mother and 5 years older than his sister. What is the age of the father?  
(a) 55 years  
(b) 58 years  
(c) 60 years  
(d) 62 years
30. A father tells his son, "I was three times your present age when you were born." If the father's present age is 48 years, how old was the boy 4 years ago?  
(a) 8 years  
(b) 12 years  
(c) 16 years  
(d) 20 years
31. Sam is twice as old as Bram who is three years older than Jack. If Sam's age is five times Jack's age, how old is Bram? [SSC CISF 2010]  
(a) 2 years  
(b) 4 years  
(c) 5 years  
(d) 8 years
32. A father's age is one more than 5 times his son's age. After 3 years, the father's age would be 2 less than four times the son's age. Find the present age of the father. [SSC CPO 2010]  
(a) 29 years  
(b) 30 years  
(c) 31 years  
(d) 40 years
33. A was born 5 years before B, B is 4 years older than C and 3 years younger to D. If A is now 17 years old, how old is D?  
(a) 9 years  
(b) 12 years  
(c) 15 years  
(d) 19 years
34. Your age is 10 years less than half your mother's age who is 5 years younger than your father. If your father is 45 years old, what is your age?  
(a) 5 years  
(b) 10 years  
(c) 15 years  
(d) 20 years
35. Shobhit's age was the square of a number last year and it will be cube of a number next year. How long must he wait before his age is again the cube of a number?  
(a) 10 years  
(b) 38 years  
(c) 39 years  
(d) 47 years
36. A is older by 4 years to B at one stage. After 16 years of this stage, A will be thrice his present age and B will be five times his present age. How old would A and B be two years before the initially indicated stage?  
(a) 6 years and 2 years

- (b) 8 years and 4 years  
(c) 10 years and 6 years  
(d) 12 years and 8 years
37. Nine years later, age of  $B$  will be equal to the present age of  $A$ . Sum of  $A$ 's age 3 years later and  $B$ 's age 4 years ago is 76. If  $C$  is half of the present age of  $B$ , then what will be  $C$ 's age (in years) after 10 years?  
[SSC CGL 2017]
- (a) 27  
(b) 31  
(c) 32  
(d) 36
38. 5 years hence, ratio of ages of  $A$  and  $B$  will be 7 : 5 and difference between their ages will be 4 years. What are the present ages (in years) of  $A$  and  $B$  respectively?  
[SSC CGL 2017]
- (a) 5,9  
(b) 6,5  
(c) 9,5  
(d) 9,6
39. The ratio of the present ages of Sunder and Jagat is 4 : 5. Three years later their ages will be in the ratio 7 : 8. What is the present age (in years) of Sunder? [SSC CGL 2017]
- (a) 4  
(b) 6  
(c) 8  
(d) 10
40. Present age of  $A$  is 2 times the present age of  $B$ . After 8 years,  $B$ 's age will be 4 times  $C$ 's present age. If  $C$  celebrated his fifth birthday 9 years ago, then what is the present age (in years) of  $A$ ? [SSC CGL 2017]
- (a) 84  
(b) 88  
(c) 92  
(d) 96
41. The ratio of the present ages of  $P$  and  $Q$  is 5 : 8. Three years later, their ages will be in the ratio 8 : 11. What is the present age (in years) of  $Q$ ? [SSC CGL 2017]
- (a) 5  
(b) 8  
(c) 11  
(d) 14
42. The ratio of the present ages of Shyam and Rakesh is 2 : 1 and the sum of their present ages is 72 years. What will be the Shyam's age (in years) after 6 years?  
[SSC CGL 2017]
- (a) 62  
(b) 66  
(c) 72  
(d) 76
43. Seven years ago, the age of Vikrant was equal to the present age of Ram. Sum of Vikrant's age 5 years ago and Ram's age 6 years later is 58 years. If Alex is 4 years elder to Vikrant, then what will be Alex's age (in years) after 10 years?  
[SSC CGL. 2017]
- (a) 36  
(b) 38  
(c) 42  
(d) 46