Padasalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- Padasalai's NEWS - Group
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA

- Padasalai's Channel - Group
https://t.me/padasalaichannel

- Lesson Plan - Group
https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw

- 12th Standard - Group
https://t.me/Padasalai_12th

- 11th Standard - Group
https://t.me/Padasalai_11th

- 10th Standard - Group
https://t.me/Padasalai_10th

- 9th Standard - Group
https://t.me/Padasalai_9th

- 6th to 8th Standard - Group
https://t.me/Padasalai_6to8

- 1st to 5th Standard - Group
https://t.me/Padasalai_1to5

- TET - Group
https://t.me/Padasalai_TET

- PGTRB - Group
https://t.me/Padasalai_PGTRB

- TNPSC - Group
https://t.me/Padasalai_TNPSC

UNIT TEST (MATHEMATICS)

2.NUMBERS AND SEQUENCES

TIME:1.30 Hrs **MARKS:50**

I choose the best answer **10x1=10**

1.using Euclid's division lemma If the cube of any positive integer is divided by 9 then the possible remainders are

1)0,1,8 2)1,4,8 3)0,1,3 4)1,3,5

2.If the HCF of 65 and 117 is expressible in the form of 65m-117.then the value of m Is 1)4 2)2 3)1 4)3

3.The least number that is divisible by all the numbers from 1 to 10 (both inclusive) Is 1)2025 2)5220 3)5025 4)2520

4.$7^{4k} \equiv$_____(mod 100) 1)1 2)2 3)3 4)4

5.If 6 times of 6^{th} term of an A.P is equal to 7 times the 7^{th} term then 13^{th} term of the A.P is 1)0 2)6 3)7 4)13

6.An A.P consists of 31 terms if its 16^{th} term is m then the sum of all terms of this A.P is 1)16m 2)62m 3)31m 4)$\frac{31}{2}m$

7.the next term of sequence $\frac{3}{6}, \frac{1}{8}, \frac{1}{12}, \frac{1}{18}$ is

1)$\frac{1}{24}$ 2)$\frac{1}{27}$ 3)$\frac{2}{3}$ 4)$\frac{1}{81}$

8.the value of $(1^3+2^3+3^3+\ldots\ldots\ldots\ldots+15^3)$—$(1+2+3+\ldots\ldots\ldots\ldots+15)$ is

1)14400 2)14200 3)14280 4)14520

9.the 8^{th} term of the sequence 1,12,3,5,8,…….. is

1)25 2)24 3)23 4)21

10.If a,b,c are in A.P then $\frac{a-b}{b-c}$ is equal to

1)$\frac{a}{b}$ 2)$\frac{b}{c}$ 3)$\frac{a}{c}$ 4)1

II.Answer the following any 10 questions(qus.21 is compulsory) **10x2=20**

11.define : Euelid's division lemma

12.Find the quotient and remainder when a is divided by b in the following cases

i)a= -12 b=5 ii)a=-19 b=-4

13.show that the square of an odd integer is of the form 4q+1 for some integer q

14.Find all positive integers when divided by 3 leaves remainder 2

15. can the number 6^n , n being a natural number end with the digit 5 give reason your answers

16.find the least number that is divisible the first ten natural numbers

17.compute x such that $10^4 \equiv x$ (mod 19)

18.solve 3x—2 ≡ 0 (mod 11)

19.find the remainder when 2^{81} is divided by 17

20.Find the nth term of the following sequences

1)2,5,10,17…….. 2)3,8,13,18……..

21.determine the general term of an A.P, whose 7^{th} term is –1 and 16^{th} term is 17

22.find x,y and z given that the numbers x,10,y,24,z are in A.P

23.Find sum of all odd positive integer less than 450

24. If a,b,c are in A.P then show that $3^a, 3^b, 3^c$ are in G.P

25. find : i)2+4+6+…….+80 ii)1+3+5+……to 40 terms

III.Answer the following any 4 questions(qus.30 is compulsory) 4x5=20

26.Find HCF of 396,504,636

27.In an A.P sum of four consecutive terms is 28 and their sum of their squares is 276 find the four numbers

28.the sum of three consecutive terms that are in A.P is 27 and their product is 288 find the three terms

29.the sum of first n,2n,3n terms of an A.P are s_1,s_2,s_3 respectively prove that $s_3=3(s_2—s_1)$

30.the product of three consecutive terms of G.P is 343 and their sum is $\frac{91}{3}$ find the three terms

31.find the sum of n terms of series 6+66+666+……n terms

32.find the sum of geometric series 3+6+12+……..+1536

33.find the sum of the series $(2^3—1)+(4^3—3^3)+(6^3—5^3)+$…….to

i)n terms ii)8 terms

Padasalai