



**GOVERNMENT DEGREE COLLEGE-NAIDUPET**

**SPSR NELLORE DIST, ANDHRA PRADESH-524126**



**Certificate Course**

**on**

**Objective Mathematics for Competitive Exams**

**2021-22**

**Department of Mathematics**

*h to*

Date: 28/10/2021

From  
The Department of Mathematics  
Government Degree College  
Naidupet

To  
The Principal  
Government Degree College  
Naidupet

Sir

Sub: Department of Mathematics - permission seeking to conduct certificate course on "Objective Mathematics for Competitive Exams"-Regarding.

I would like to submit that the Department of Mathematics has planned to conduct a certificate course for III year students from the academic year 2021-22 onwards.

At this juncture we request your honour to permit the department to organize the above requested certificate course instantly. This is for your favourable consent

Thanking you sir

Yours sincerely



Department of Mathematics  
LECTURER IN MATHEMATICS  
Govt. Degree College  
Naidupet, SPS Nellore (Dist)



## GOVERNMENT DEGREE COLLEGE-NAIDUPET

SPSR NELLORE DIST, ANDHRA PRADESH-524126



### Circular

Date: 29/10/2021

All the final year students are hereby instructed that, the Department of Mathematics is going to start a Certificate Course on "Objective Mathematics for Competitive Exams" from this academic year 2021-22 onwards.

So, interested students are directed to contact Department of Mathematics and register for the course.

  
Principal

PRINCIPAL  
Govt. Degree College  
NAIDUPET, SPSR Nellore Dist

III BSC (MPCS) 

III BSC (MPC) 

III BSC (MBC) 

III BA 

III BCom 

# ADD - ON PROGRAMME

## Syllabus

### unit-I

Averages, numbers, problems on ages, missing numbers

### unit-II

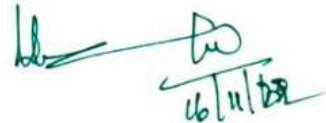
Percentages, profit and loss, time and distance, odd man out.

### unit-III

Ratio and proportion, time and work, simple and compound interest.

### unit-IV

Statistics - mean, median and mode, relation between mean, median and mode



PRINCIPAL  
Govt. Degree College  
NAIDUPET, Tirupati Dt.

Add-on program for the year 2021-2022

program code : ADD-MAT-01

List of the candidates enrolled for the program

<u>Sl. No</u>	<u>Name of the candidate</u>	<u>class &amp; group</u>	<u>Remarks</u>
1.	T. Sireesha	III B.Com	
2.	P. Jyoshna	III B.Com	
3.	T. Dani	III B.Com	
4.	A. Gayathri	III B.Com	
5.	K. Hayavadathi	III B.Com	
6.	A. Muni Rathanamma	III B.Com	
7.	N. shruthi	III B.Com	
8.	P. Munigatnam	III B.Com	
9.	M. kishore	III B.Com	
10.	T. Savitha	III B.Com	
11.	P. Lakshmi	III B.Com	
12.	M. Tharun	III B.Com	
13.	P. Rakesh	III B.Com	
14.	T. Nagaraju	III B.Com	
15.	K. Ramanaiah	III B.Com	
16.	K. Dilip Kumar	III B.S.C [M.B.C]	
17.	Y. Oevendra Kumar	III B.S.C [M.B.C]	
18.	M. Sarayanamma	III B.S.C [M.B.C]	
19.	A. Mounika	III B.S.C [M.B.C]	
20.	O. Soma Sekhar	III B.S.C [M.B.C]	
21.	N. Bhavani	III B.A [H.E.P]	
22.	K. Jyoshna	III B.A [H.E.P]	
23.	S. Chenchiamma	III B.A [H.E.P]	

Sl. No

Name of the Candidate

class & group

Remarks

24.	M. Jayamunemma	III B.A (H.E.P)	
25.	V. Maheswari	III B.A (H.E.P)	
26.	G. Rajeswari	III B.A (H.E.P)	
27.	M. Guruswami	III BA [H.E.P]	
28.	B. Damsi Krishna	III B.A [H.E.P]	
29.	B. Balaji	III B.A [H.E.P]	
30.	T. Jagadeesh	III B.A [H.E.P]	
31.	K. Dimala	III B.A [H.E.P]	
32.	R. Venkateswarlu	III B.Sc [M.P.C]	
33.	K. Dennela	III B.Sc [M.P.C]	
34.	K. Sumanthi	III B.Sc [M.P.C]	
35.	K. Bharathi	III B.Sc [M.P.C]	
36.	T. Kesava	III B.Sc [M.P.C]	
37.	K. Aruna	III B.Sc [M.P.CS]	
38.	B. Malitha	III B.Sc [M.P.CS]	
39.	B. Sravani	III B.Sc [M.P.CS]	
40.	T. Rivali	III B.Sc [M.P.CS]	
41.	K. Gunasankar	III B.Sc [M.P.CS]	
42.	P. Chandrasekhar	III B.Sc [M.P.CS]	
43.	M. Viswanath	III B.Sc [M.P.CS]	

program title objective mathematics for competitive Exams

Duration : 36 hours

organised by

  
PRINCIPAL  
Govt. Degree College  
NAIDUPET, Tirupati Dt

# MODEL QUESTION PAPER

max Time : 2 hours  
max. marks : 50

## PART-A

Answer all the following multiple choice questions each question carries one mark.  
(20x1=20)

1. Find the average of first 15 natural numbers?  
(a) 10      (b) 8      (c) 15      (d) 20

2.

3.

4.

---

---

---

20.

## PART-B

Answer any six questions from the following ten questions.  
Each question carries five marks      (6x5=30)

1.

2.

3.

4.

---

---

---

10.

## Test-I

### question paper

Answer any five from the following each question carries 5 marks ( $5 \times 5 = 25$ )

1. If 5<sup>th</sup> January 1991 was Saturday. What day of the week was it on 1<sup>st</sup> March 1992.
2. If 6 men or 8 women can reap a field in 86 days how long will 14 men and 10 women take to reap it?
3. Find the compound interest on ₹8000 at 4% per annum for 2yr, compound annually.
4. Find the median of the observations 5, 15, 25, 35, 65, 75?
5. At what time between 10 o'clock and 2 o'clock will the hands of a clock be together.
6. 10g is what percent of 1kg?
7. A and B together can do a piece of work in 12 days and A alone can do it in 18 days. In how many days can B alone do it?
8. What is the class mark of the interval 12.5-17.5?

## Test - II

### Question paper :-

Answer any five from the following each question carries 5 marks. ( $5 \times 5 = 25$ )

1. Mahatma Gandhi was born on 20 October 1869. What was the day of the week?
2. A bike crosses a bridge with a speed of 108 km/h. What will be the length of the bridge, if the bike takes 2 hr to cross the bridge.
3. Find the compound interest on ₹ 2000 at 15% per annum for 2 yr 4 months, compounded annually.
4. Find the mean of 68, 78, 74, 89 and 75.
5. The minute hand of a clock overtakes the hour hand at intervals of 63 mins of the correct time. How much does a clock gain or lose in a day?
6. A vendor sells apples at for ₹ 21, gaining 40%. How many apples did he buy for ₹ 1?
7. A sum at simple interest of 4% per annum amounts to ₹ 3120 in 5 yr. Find the sum.
8. For a given data mean is 40 and mode is 25, then find the median.



PRINCIPAL  
Govt. Degree College  
NAIDUPET, Tirupati Dt.

## Final Test

question paper :-

max time : 2 hours

max. marks : 50

### PART - A

Answer all the following multiple choice questions.  
each question carries one mark. (20x1=20)

1. By which of the following a leap year must be divisible?  
(a) 9 (b) 6 (c) 5 (d) 4
2. The ratio of Smith's age to her mother's is 3:7 respectively and the difference in their ages is 32 yrs. what will be the ratio of their ages 4 yrs hence?  
(a) 4:19 (b) 5:14 (c) 3:20 (d) 7:15
3. 25% of what amount of money is equal to  $12\frac{1}{2}\%$  of ₹180?  
(a) ₹120 (b) ₹75 (c) ₹80 (d) ₹90
4. A sales man expects a gain of 13% on his cost price. If in a month his sale was ₹791000, then what was his profit?
5. What will be the angle between the hands of a clock when the time is at 4:40 pm?
6. What was the day of the week on 17th August, 2010?  
(a) Sunday (b) Wednesday (c) Tuesday (d) Friday
7. Before 7 yrs, the ratio of ages of A and B was 3:4, after 9 yrs, ratio of their ages will be 7:8. The present age of B will be  
(a) 16 yrs (b) 19 yrs (c) 28 yrs (d) 23 yrs
8. 27 is 5.6% of ?  
(a) 750 (b) 75 (c) 1500 (d) 1875
9. The speed of a bus is 72 km/h. The distance covered by the time in 55 is  
(a) 50m (b) 44.50m (c) 100cm (d) 60cm

10. If speed of  $3\frac{1}{3}$  m/s is converted to km/h. then it would be

- (a) 8 km/h (b) 9 km/h (c) 10 km/h (d) 12 km/h

11. Find the mean proportional between 9 and 64.

- (a) 25 (b) 24 (c) 27 (d) 35

12. 12 men can do a piece of work in 24 days. How many days are needed to complete the work, if 8 men do this work.

13. At what percent annual compound interest rate a certain sum amounts to its 27 times in 3 yrs.

14. For a given data mean is 40 and mode is 25, then find median.

- (a) 35 (b) 30 (c) 25 (d) 20

15. find the mode of the given data 5, 7, 9, 3, 7, 3, 7, 5, 7.

- (a) 1 (b) 3 (c) 7 (d) 9

16. find the sub-duplicate ratio of 81:64

- (a) 8:9 (b) 4:9 (c) 9:8 (d) 7:8

17. 15 men complete a work in 16 days. If 24 men are employed, then the time required to complete that work will be

- (a) 7 days (b) 8 days (c) 10 days (d) 12 days.

18. How long will a sum of money invested at 5% per annum SI take to increase its value by 50%.

19. Find the median of the observation 6, 42, 14, 46, 16, 42, 26, 32, 28.

- (a) 26 (b) 28 (c) 30 (d) 32

20. In the following distribution, mean is

x	3	4	5	6	7	8	9	10
f	2	4	2	3	5	4	3	7

- (a) 10 (b) 7 (c) 7.1 (d) 6.5

## PART - B

Answer any six questions from the following the questions.  
Each question carries five marks.  $(6 \times 5 = 30)$

1. At what time between 7 o'clock and 8 o'clock in the morning will the both hands of a clock be at right angle?
2. Find out the average at 308, 125, 45, 120 and 102.
3. A person buys a toy for ₹ 50 and sells it for ₹ 75 what will be his gain percent?
4. A and B together can do a peice of works in 12 days and A alone can do it in 18 days. In how many days can B alone do it?
5. For a given data mean is 40 and mode is 25, then find the median.
6. what will be angle between the two hands of a clock at 9:50?
7. How many days are there in  $x$  weeks  $x$  days?
8. If 30% of  $a = 60$ , then find the value of  $a$ .
9. Find the greater ratio between 2:3 and 4:5.
10. Find the mean of 68, 78, 74, 79 and 75.



## GOVERNMENT DEGREE COLLEGE-NAIDUPET

SPSR NELLORE DIST, ANDHRA PRADESH-524126



### **Course Outcomes:**

After successful completion of this course, students will have the knowledge and skills to

1. Apply quantitative reasoning and mathematical analysis methodologies to understand and solve problems.
2. Comprehend, work with, and apply general mathematical techniques and models to different real-life situations, not just plug problem-specific data into a given formula.
3. Solve the problems easily by using shortcut methods with time management which will be helpful to them to clear the competitive exams for better job opportunities.
4. Analyse the Problems logically and approach the problems in a different manner



SN	Name of the Student	Nov-2021														Dec-2021								Jan-2022				Student Signature							
		5	6	8	9	10	12	15	16	17	18	22	24	26	27	29	2	3	4	6	7	8	9	15	16	17	28		3	4	5	6			
16	K DILEEP KUMAR	P	A	A	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Dileep kumar
17	Y DEVENDRA KUMAR	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	A	Y. Devendra Kumar
18	M NARAYANAMMA	P	P	A	P	P	A	P	A	A	P	A	P	P	A	P	A	P	A	P	P	P	A	P	A	P	A	P	A	P	A	P	P	P	M. Narayanamma
19	A MOUNIKA	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	A	A. Mounika
20	D SOMASEKHAR	P	A	P	P	P	P	A	P	P	P	A	P	P	P	P	A	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	D. Somasekhara
21	N BHAVANI	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	Bhavani
22	K JYOSHNA	A	A	A	A	A	A	A	A	A	A	A	P	P	A	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	Jyosha
23	S CHENCHAMMA	A	P	P	A	A	P	P	P	P	A	P	A	A	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	A	A	S. Chenchamma
24	M NAYAMUNEMMA	A	A	A	P	A	A	A	A	A	A	A	P	A	A	A	A	A	A	A	A	P	A	A	A	A	A	A	A	A	A	A	A	P	Naya Munemma
25	V MAHESWARI	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	A	V. Maheswari
26	G RAJESWARI	P	A	A	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	G. Rajeswari
27	M GURU SWAMI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	M. Guruswami
28	B VAMSI KRISHNA	A	A	A	A	A	A	A	A	A	A	A	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	A	A	B. Vamsi Krishna
29	B BALAJI	P	A	P	A	P	P	A	P	P	P	A	A	P	P	A	P	P	P	A	A	P	P	A	P	P	P	P	P	P	P	A	A	A	B. Balaji
30	T JAGADESH	P	P	A	P	P	A	P	A	A	P	A	P	P	A	P	A	P	A	P	P	P	P	A	P	A	P	P	P	P	P	A	P	P	T. Jagadesh
31	K VIMALA	P	P	A	P	P	A	P	A	A	P	A	P	P	A	P	A	P	A	P	P	P	P	A	P	A	P	P	P	P	P	A	P	P	K. Vimala

  
 LECTURER IN MATHEMATICS  
 Govt Degree College  
 Narasipeta, SPSR Nellore (Dist)

  
 Principal  
 PRINCIPAL  
 Govt. Degree College  
 NARASIPETA, SPSR Nellore Dist

S N	Name of the Student	Nov- 2021													Dec-2021								Jan-2022				Student Signature										
		5	6	8	9	10	12	15	16	17	18	22	24	26	27	29	2	3	4	6	7	8	9	15	16	17		28	3	4	5	6					
32	R VENKATESWARLU	P	A	A	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	R Venkateswarlu
33	K VENNELA	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	K Vennela	
34	K SUMANTHI	P	P	A	P	P	A	P	A	A	P	A	P	P	A	P	A	P	A	P	P	P	A	P	A	P	A	P	P	P	P	A	A	P	P	K. Sumanthi	
35	K BHARATHI	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	K. Bharathi	
36	T KESAVA	P	A	P	P	P	P	A	P	P	P	P	A	P	P	A	P	P	P	A	P	P	P	A	P	P	P	A	P	P	P	A	P	P	P	T Kesava	
37	K ARUNA	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	Aruna	
38	B MAHITHA	P	A	A	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	A	A	P	P	P	A	P	P	A	A	P	P	A	A	P	Mahitha	
39	B SRAVANI	A	P	P	A	A	P	P	P	P	A	A	A	A	A	A	P	A	P	P	A	A	P	P	P	P	P	P	P	P	A	A	P	A	A	B. Sravani	
40	T RAVALI	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	A	P	A	A	T. Ravali	
41	K GUNA SEKHA	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Guna Sekhar	
42	P CHANDRA SEKHA	P	A	A	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P. Chandra Sekhar	
43	M VISWANATH	A	A	A	P	A	A	A	A	A	A	A	P	A	A	A	A	A	A	A	P	A	A	A	A	A	A	A	A	A	A	P	P	P	P	M. Viswanath	

LECTURER IN MATHEMATICS  
 Govt Degree College  
 Naidupet, SPS Nellore (Dist)  
 Organizing secretary

Principal  
 Govt. Degree College  
 NAIDUPET, SPSR Nellore DL



## **GOVERNMENT DEGREE COLLEGE-NAIDUPET**

SPSR NELLORE DIST, ANDHRA PRADESH-524126



### **Evaluation**

The Course syllabus and evaluation pattern are decided by the department and approved by the principal. The evaluation is done by the department itself. Tests were conducted and the final grades are awarded. Each qualified student is awarded with a certificate. The awarding of grades is in the following pattern,

Grade A-more than 75%

Grade B- from 60% to 75%

Grade C- from 50% to 60%

Grade D-not qualified

**Evaluation**

SNo	Name Of the student	Grade	Result(P/F)
1	T SIREESHA	B	P
2	P JYOSHNA	B	P
3	T VANI	A	P
4	A GAYATHRI	B	P
5	K HYMAVATHI	A	P
6	A MUNIRATNAM	A	P
7	N SHRUTHI	C	P
8	P MUNIRATNAM	B	P
9	M KISHORE	D	F
10	T SAVITHA	B	P
11	P LAKSHMI	B	P
12	M THARUN	C	P
13	P RAKESH	D	F
14	T NAGARAJU	B	P
15	K RAMANAIAH	B	P

  
**Organizing secretary**  
**LECTURER IN MATHEMATICS**  
**Govt Degree College**  
**Naidupet, SPS Nellore(Dist)**

  
**Principal**  
**PRINCIPAL**  
**Govt. Degree College**  
**NAIDUPET, SPSR Nellore Dt.**

Evaluation

SNo	Name Of the student	Grade	Result(P/F)
16	K DILEEP KUMAR	B	P
17	Y DEVENDRA KUMAR	B	P
18	M NARAYANAMMA	A	P
19	A MOUNIKA	B	P
20	D SOMASEKHAR	A	P
21	N BHAVANI	A	P
22	K JYOSHNA	C	P
23	S CHENCHAMMA	B	P
24	M NAYAMUNEMMA	D	F
25	V MAHESWARI	B	P
26	G RAJESWARI	B	P
27	M GURU SWAMI	C	P
28	B VAMSI KRISHNA	D	F
29	B BALAJI	B	P
30	T JAGADESH	B	P

LECTURER IN MATHEMATICS  
Govt Degree College  
Naidupet, SPSR (Dist)  
Organizing Secretary

  
Principal  
PRINCIPAL  
Govt. Degree College  
NAIDUPET, SPSR, Nellore Dt.

## Evaluation

SNo	Name Of the student	Grade	Result(P/F)
31	K VIMALA	B	P
32	R VENKATESWARLU	B	P
33	K VENNELA	A	P
34	K SUMANTHI	B	P
35	K BHARATHI	A	P
36	T KESAVA	A	P
37	K ARUNA	C	P
38	B MAHITHA	B	P
39	B SRAVANI	D	F
40	T RAVALI	B	P
41	K GUNA SEK HAR	B	P
42	P CHANDRA SEK HAR	C	P
43	M VISWANATH	D	F

  
Principal  
Govt. Degree College  
Naidupet, SPS Nellore(Dist)

  
Principal  
Govt. Degree College  
NAIDUPET, SPSR Nellore Dt.



**Principal Dr M. Madhusudana Varma and Dr B. Sueelavathy handing over the certificate to the Successful candidate**



**Principal Dr M. Madhusudana Varma and Dr B. Sueelavathy handing over the certificate to the Successful candidate**



**Principal Dr M. Madhusudana Varma and Dr B. Sueelavathy handing over the certificate to the Successful candidate**

# GOVT. DEGREE COLLEGE, NAIDUPET

(Re accredited with 'B' Grade by NAAC)

SPSR Nellore Dist., A.P.



## CERTIFICATE

*This is to Certify that Mr/Kum.....*  
*of.....has attended the Add on programme on*  
*.....Conducted by the Dept. of.....*  
*during the academic year 20 - 20 and Qualified with Grade.....*

**Convener**

**Principal**