

**GOVERNMENT DEGREE COLLEGE  
RAZOLE  
EAST GODAVARI DISTRICT**



**DEPARTMENT OF MATHEMATICS  
CERTIFICATE COURSE  
IN  
QUANTITATIVE APTITUDE  
FOR  
2017-18**

**GOVERNMENT DEGREE COLLEGE , RAZOLE**  
**EAST GODAVARI DISTRICT**

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**DEPARTMENT OF MATHEMATICS**


**MINUTES OF THE DEPARTMENT**

A staff meeting has been conducted in the department on 02-08-2017 and following items have been discussed and resolved .

- It is resolved to introduce “certificate course for the academic year 2017-18.
- It is resolved to conduct certificate course for the final year students.
- It is resolved to conduct classes for 25 working hours on the syllabus presented.
- It is resolved to approve the syllabus and model paper.
- It is resolved to conduct external examination for 50 marks as objective questions.



(VSV Krishna Murty)

  
PRINCIPAL  
Government Degree College  
(NAAC Reaccredited at 'B' Grade)  
RAZOLE - 533 242, E.G.D., (A.P.)

**GOVERNMENT DEGREE COLLEGE, RAZOLE  
EAST GODAVARI DISTRICT**

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**DEPARTMENT OF MATHEMATICS**

**NOTICE**

Razole  
16-08-2017

To,  
The Principal  
Government Degree College  
Razole

Sir,

Sub: Government Degree College, Razole - Introduction of Certificate course in  
"QUANTITATIVE APTITUDE" during 2017-18 - Proposal submitted for  
permission - Regarding.

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I humbly submit that the Department of Mathematics proposes to conduct a Certificate course in "QUANTITATIVE APTITUDE" during 2017-18 keeping in view of the need of the students . A resolution has been taken in the Departmental Minutes book .

Hence, I request you to permit us to conduct the said course for the benefit of our students.

Thanking you sir

Yours faithfully,

  
(V S V Krishna Murty)

# GOVERNMENT DEGREE COLLEGE, RAZOLE

## EAST GOAVARI DISRCT

### DEPARTMENT OF MATHEMATICS

#### CERTIFICATE COURSE

IN


#### QUANTITATIVE APTITUDE


2017-18

#### OUTCOMES :

At the end of the course , the student attains the following outcomes

- He understands the importance of critical thinking in analysis.
- He understands the concepts various arithmetic concepts
- He identifies the different aspects of verbal reasoning
- He is able to take quick decisions with the analytical skills he learnt
- He is able to solve various aspects relating Non-verbal reasoning .
- He is capable of solving his real life problems with the reasoning skills he gained..

  
(VSV Krishna Murty)  
(Lecturer in Mathematics)

  
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**GOVERNMENT DEGREE COLLEGE, RAZOLE**  
**DEPARTMENT OF MATHEMATICS**  
**CERTIFICATE COURSE**  
**IN**  
**QUANTITATIVE APTITUDE**  
**2017-18**  
**SYLLABUS**

**Hours : 45**

**Unit I**

Numbers, HCF, LCM, Decimal Fractions, Simplification, Square Root, Cube Root, Percentage, Average, Ratio and Proportion, Partnership, Chain Rule

**Unit II**

Time and Work, Pipes and Cisterns, Time and Distance, Trains, Boats and Streams, Profit and Loss, Allegation or Mixture, Simple Interest, Compound Interest,

**Unit III**

Area of Plane Figures, Measurements of different shapes of Fields, Volume and area of solid figures, Races and Games of Skill, Stock and Shares, True Discount, Bankers Discount, Tabulation, Data Interpretation, Problems on Ages

**Unit IV**

Number Series, Number Analogy, Letter Series, Letter Analogy, Word Analogy, Odd man out, Coding and Decoding, Alphabetic order, Venn Diagrams, Simplification, Clocks, Calendar

**Unit V**

Direction sense, Blood Relations, comparison, Seating arrangement, Missing Numbers, Non Verbal Series, Non verbal Analogy, Non verbal Classification, Paper cutting, paper Folding, Dot Situation Test, Figure Completion, Water Images, Mirror Images, Data Sufficiency, Logical Deductions, Cubes, Dies


**SUGGESTED READINGS:**

1. A Text Book of Arithmetic by R. S. Agarwal, S CHAND & COMPANY
2. A Text Book of Reasoning Verbal Non Verbal by R. S. Agarwal, S CHAND & COMPANY

**Pattern of Examination**

**Theory (50 marks)**

The students have to write the theory examination for 50 marks 2hours duration.

  
(VSV KRISHNA MURTHY)  
(Lecturer in Mathematics)

  
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**GOVERNMENT DEGREE COLLEGE, RAZOLE**  
**EAST GODAVARI DISTRICT**  
**DEPARTMENT OF MATHEMATICS**  
**CERTIFICATE COURSE**  
**2017-18**

(18<sup>th</sup> August 2017 to 20<sup>th</sup> September 2017)

**WORK DONE STATEMENT**

Name of the Lecturer : V.S.V. KRISHNA MURTY

Subject : MATHEMATICS

NAME OF THE CERTIFICATE COURSE: **QUANTITATIVE APTITUDE**

S. N O	DATE	BATCH TIME (4.00 to 5.00 PM)	TOPIC	Name of the Lecturer taught
1	18-08-2017	1Hr	Numbers	V.S.V.Krishna Murty
2	19-08-2017	1Hr	HCF,LCM	V.S.V.Krishna Murty
3	21-08-2017	1Hr	Decimal Fractions, Simplification	V.S.V.Krishna Murty
4	22-08-2017	1Hr	Square Root, Cube Root	V.S.V.Krishna Murty
5	23-08-2017	1Hr	Percentage, Average	V.S.V.Krishna Murty
6	24-08-2017	1Hr	Ratio and Proportion	V.S.V.Krishna Murty
7	25-08-2017	1Hr	Time and Work	V.S.V.Krishna Murty
8	26-08-2017	1Hr	Area of Plane Figures,	V.S.V.Krishna Murty
9	28-08-2017	1Hr	Measurements of different shapes	V.S.V.Krishna Murty
10	29-08-2017	1Hr	Volume and area of solid figures	V.S.V.Krishna Murty
11	30-08-2017	1Hr	Tabulation, Data Interpretation,	V.S.V.Krishna Murty
12	31-08-2017	1Hr	Problems on Ages	V.S.V.Krishna Murty
13	01-09-2017	1Hr	Pipes and Cisterns	V.S.V.Krishna Murty
14	02-09-2017	1Hr	Time and Distance	V.S.V.Krishna Murty
15	04-09-2017	1Hr	Trains	V.S.V.Krishna Murty
16	05-09-2017	1Hr	Profit and Loss	V.S.V.Krishna Murty
17	06-09-2017	1Hr	Simple Interest, Compound Interest	V.S.V.Krishna Murty
18	07-09-2017	1Hr	Partnership, Chain Rule	V.S.V.Krishna Murty
19	08-09-2017	1Hr	Number Series, Number Analogy	V.S.V.Krishna Murty
20	11-09-2017	1Hr	Letter Series, Letter Analogy, Word	V.S.V.Krishna Murty
21	12-09-2017	1Hr	Clocks	V.S.V.Krishna Murty
22	13-09-2017	1Hr	Calendar	V.S.V.Krishna Murty
23	18-09-2017	1Hr	Direction Sense	V.S.V.Krishna Murty
24	19-09-2017	1Hr	Blood Relations	V.S.V.Krishna Murty
25	20-09-2017	1Hr	Comparison	V.S.V.Krishna Murty

Signature of the Lecturer(s)



(VSV Krishna Murty)

(Lecturer in Mathematics)

  
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**GOVERNMENT DEGREE COLLEGE, RAZOLE, EGDT.  
ATTENDANCE PARTICULARS OF THE STUDENTS WHO ATTENDED  
CERTIFICATE COURSE IN QUANTITATIVE APTITUDE  
2017-18**

**Duration: 18th August 2017 to 20th September 2017( 25 hours )**

			18-08-2017	19-08-2017	21-08-2017	22-08-2017	23-08-2017	24-08-2017	25-08-2017	26-08-2017	28-08-2017	29-08-2017	30-08-2017	31-08-2017	1/9/2017	2/9/2017	4/9/2017	5/9/2017	6/9/2017	7/9/2017	8/9/2017	11/9/2017	12/9/2017	13/9/2017	18/9/2017	19/9/2017	20/9/2017
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
S.NO	NAME OF THE STUDENT	REGD .NO.																									
1	A.Rajesh	151077101001	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P	P	P
2	B. Nagamani	151077101002	P	A	P	P	A	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P
3	Ch. Dharani Shankar	151077101003	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
4	G. Raja	151077101004	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P
5	J. L.L. Narayana	151077101006	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P
6	K.Dura Bhavani	151077101007	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P
7	K. Lavanya	151077101008	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
8	M.Srilatha	151077101011	P	A	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P	A	P	P	P	P	A	P	P
9	N. Geetha	151077101012	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	A	P	P	P	P	P
10	P.Mary Rani	151077101013	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P	P	P
11	P . Kranthi	151077101014	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P
12	R.S.R.K. Prasad	151077101016	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A
13	S. Suresh	151077101017	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
14	Sk.Nagoor Meera	151077101019	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P
15	T.Sridevi Naga valli	151077101020	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P

  
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(VSV KRISHNA MURTY)

GOVERNMENT DEGREE COLLEGE RAZOLE  
DEPARTMENT OF MATHEMATICS  
CERTIFICATE COURSE FOR 2017-18  
QUANTITATIVE APTITUDE

Time: 2Hrs

Max Marks: 50M

Answer the following questions.

50x 1M = 50M

- 1) What is the average of first five multiples of 12? ( )  
A) 36 B) 38 C) 40 D) 42
- 2) What is the difference in the place value of 5 in the numeral 754853? ( )  
A) 49500 B) 49950 C) 45000 D) 49940
- 3) What is the compound interest on Rs. 2500 for 2 years at rate of interest 4% per annum? ( )  
A) Rs. 180 B) Rs. 204 C) Rs. 210 D) Rs. 220
- 4) Sohan started a business with a capital of Rs. 80000. After 6 months Mohan joined as a partner by investing Rs. 65000. After one year they earned total profit Rs. 8750. What is share of Sohan in the profit? ( )  
A) Rs. 5222.2 B) Rs. 5777.7 C) Rs. 6222.2 D) Rs. 6777.7
- 5) A mother is twice as old as her son. If 20 years ago, the age of the mother was 10 times the age of the son, what is the present age of the mother? ( )  
A. 38 years B) 40 years C) 43 years D) 45 years
- 6) If January 1, 1996, was Monday, what day of the week was January 1, 1997? ( )  
A) Thursday B) Wednesday C) Friday D) Sunday
- 7) The speed of a boat in still water is 5km/hr. If the speed of the boat against the stream is 3 km/hr, what is the speed of the stream? ( )  
A) 1.5km/hr B) 2km/hr C) 2.5km/hr D) 1km/hr
- 8) How many times the hands of a clock coincide in a day? ( )  
A) 24 B) 22 C) 23 D) 21
- 9) Two ships are sailing in the sea on the two sides of a lighthouse. The angles of elevation of the top of the lighthouse observed from the ships are  $60^\circ$  and  $45^\circ$  respectively. If the lighthouse is 100m high, find the distance between the two ships. ( )  
A) 155.80m B) 157.74m C) 159.80m D) 161.80m
- 10)  $40\%$  of  $280 = ?$  ( )  
A) 112 B) 116 C) 115 D) 120
- 11) A pipe can fill a tank in 6 hours and another pipe can empty the tank in 12 hours. If both the pipes are opened at the same time, the tank can be filled in ( )  
A) 10 hours B) 12 hours C) 14 hours D) 16 hours
- 12) A shopkeeper sold an article for Rs. 2500. If the cost price of the article is 2000, find the profit percent. ( )  
A) 23% B) 25% C) 27% D) 29%
- 13) A running man crosses a bridge of length 500 meters in 4 minutes. At what speed he is running? ( )  
A) 8.5km/hr B) 7.5km/hr C) 9.5km/hr D) 6.5km/hr
- 14) If Suresh borrows Rs. 36000 from Mahesh at rate of interest 6% S.I, at the end of four years how much interest Suresh has to pay along with principal amount? ( )  
A) Rs. 12560 B) Rs. 12960 C) Rs. 13500 D) Rs. 14500
- 15) A train moving at speed of 77 km/hr crosses a pole in 7 seconds. Find the length of the train. ( )  
A) 150m B) 165m C) 175m D) 170m
- 16) Worker A completes a task in 8 days and worker B completes the same task in 10 days. If both A and B work together, in how many days they will complete the task? ( )  
A)  $\frac{40}{10}$  days B)  $\frac{40}{9}$  days C)  $\frac{40}{8}$  days D)  $\frac{40}{7}$  days
- 17) A 60 liter mixture of milk and water contains 10% water. How much water must be added to make water 20% in the mixture? ( )  
A) 8 liters B) 7.5 liters C) 7 liters D) 6.5 liters
- 18) The value of  $5^{1/4} \times (125)^{0.25}$  is ( )  
A)  $\sqrt{5}$  B)  $5\sqrt{5}$  C) 5 D) 25
- 19) What is the HCF of 1095 and 1168? ( )  
A) 37 B) 73 C) 43 D) 83
- 20) What is the area of a triangle with base 5 meters and height 10 meters? ( )  
A) 20 square meters B) 35 square meters C) 25 square meters D) 40 square meters
- 21) A: B: C is in the ratio of 3: 2: 5. How much money will C get out of Rs 1260? ( )  
A) 252 B) 125 C) 503 D) None of these
- 22) In a kilometer race, A beats B by 40 meters or by 5 seconds. What is the time taken by A over the course? ( )  
A) 1 minute 57 seconds. B) 2 minutes 5 seconds. C) 1.5 minutes. D) None of these.

- 23) What is the probability of getting an even number when a dice is rolled? ( )  
 A)1/5 B)1/2 C)1/3 D)1/4
- 24) The surface area of a cube is 600 cm<sup>2</sup>. The length of its diagonal is ( )  
 A)  $\frac{10}{\sqrt{3}}$  cm B)  $\frac{10}{\sqrt{2}}$  cm C)10  $\sqrt{3}$  cm D) 10  $\sqrt{2}$  cm
- 25)Find the missing term of the given expression:  
 $18.834 + 818.34 - ? = 618.43$  ( )  
 A)217.644 B)218.744 C) 217.744 D)217.844
- 26)The value of  $\frac{(14)^2 - (7)^2 \times 2}{7 \times 4} = ?$  ( )  
 A)98 B) 35 C) 350 D) None of these.
- 27) What is the market price of a 9% share when a person gets 180 by investing Rs. 4000? ( )  
 A) 150 B) 200 C) 250 D) 300
- 28) If 15 men can reap the crops of a field in 28 days, in how many days will 5 men reap it? ( )  
 A) 50 days B) 60 days C)84 days D)9.333 days
- 29) The true discount on a bill of Rs. 2700 is Rs. 200. What is the banker's discount? ( )  
 A)Rs. 210 B) Rs. 212 C) Rs. 216 D) Rs. 218
- 30) Find the logarithm of 1/256 to the base  $2\sqrt{2}$ . ( )  
 A)  $\frac{16}{5}$  B)  $\frac{13}{5}$  C)-16/3 D)12
- 31)  $\frac{1120}{\sqrt{?}} = 80$  ( )  
 A)3.74 B) 149.67 C)196 D) 225
- 32) If 30% of a certain number is 12.6, what is the number? ( )  
 A) 24 B) 42 C) 23 D) 32
- 33) Complete the series 2, 5, 9, 19, 37..... A)76 B)74 C)75 D)None of these.( )
- 34) If  $x^2 + 1/x^2 = 34$ , then  $x + 1/x =$  ( )  
 A)3 B) 4 C) 5 D) None of these
- 35) In what ways the letters of the word "RUMOUR" can be arranged? ( )  
 A) 180 B) 150 C) 200 D) 230
- 36) What was the day on 15th august 1947 ? ( )  
 A)Friday B) Saturday C) Sunday D) Thursday
- 37)A and B invest in a business in the ratio 3 : 2. If 5% of the total profit goes to charity and A's share is Rs. 855, the total profit is A) 500 B) 1000 C) 1500 D) 2000 ( )
38. In an election between two candidates, one got 55% of the total valid votes, 20% of the votes were invalid. If the total number of votes was 7500, the number of valid votes that the other candidate got, was ( )  
 A) 2500 B) 2700 C) 2900 D) 3100
39. Today is Monday. After 61 days, it will be ( ):  
 A) TUESDAY B) MONDAY C) SUNDAY D) SATURDAY
40. A bag contains 50 P, 25 P and 10 P coins in the ratio 5: 9: 4, amounting to Rs. 206. Find the number of coins of each type respectively. ( )  
 A) 360, 160, 200 B) 160, 360, 200 C) 200, 360,160 D) 200,160,300
41. Two numbers are respectively 20% and 50% more than a third number. The ratio of the two numbers is: ( )  
 A) 2:5 B) 3:5 C) 4:5 D) 5:4
42. A problem is given to three students whose chances of solving it are 1/2, 1/3 and 1/4 respectively. What is the probability that the problem will be solved? A)1/4 B) 1/2 C) 3/4 D) 7/12 ( )
43. A student multiplied a number by 3/5 instead of 5/3, What is the percentage error in the calculation ? ( )  
 A) 54% B) 64% C) 74% D) 84%
44. An accurate clock shows 8 o'clock in the morning. Through how many degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon? A) 144° B) 150° C) 168° D) 180° ( )
45. 20% of 1500=? A)200 B) 300 C) 400 D)500 ( )
46. The reflex angle between the hands of a clock at 10.25 is: ( )  
 A) 180° B) 192 1/2 degrees C)195° D)197 1/2 degrees
47. A clock is started at noon. By 10 minutes past 5, the hour hand has turned through: ( )  
 A) 145° B) 150° C) 155° D) 160°
48. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age? ( )  
 A) 2.2 times B) 2 1/2 times C) 2 3/4 times D) 3 times
49. The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child? ( )  
 A) 4 years B) 8 years C) 10 years D) None of these
50. A father said to his son, "I was as old as you are at the present at the time of your birth". If the father's age is 38 years now, the son's age five years back was: ( )  
 A) 14 years B) 19 years C) 33 years D) 38 years

  
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Answers:

1 A 2B 3 B 4C 5D 6B 7D 8B 9B 10 A

11 B 12 B 13 B 14B 15 A 16 B 17 B 18 C 19 B 20C

21 D 22 B 23 B 24D 25 B 26 D 27 .B 28C 29 .C 30C

31C 32B 33 C 34 D 35 A 36 A 37 C 38 B 39D 40C

41 C 42 .C 43. B 44D 45B 46D 47 C 48A 49 A 50A



DEPARTMENT OF MATHEMATICS  
CERTIFICATE COURSE ON QUANTITATIVE APTITUDE  
2017-2018  
MARKS OBTAINED IN THE EXAMINATION

S.NO	NAME OF THE STUDENT	REGD.NO.	MAX MARKS 50
1	A.Rajesh	151077101001	28
2	B. Nagamani	151077101002	24
3	Ch. Dharani Shankar	151077101003	32
4	G. Raja	151077101004	23
5	J. L.L. Narayana	151077101006	26
6	K.Dura Bhavani	151077101007	38
7	K. Lavanya	151077101008	41
8	M.Srilatha	151077101011	40
9	N. Geetha	151077101012	39
10	P.Mary Rani	151077101013	31
11	P . Kranthi	151077101014	29
12	R.S.R.K. Prasad	151077101016	29
13	S. Suresh	151077101017	23
14	Sk.Nagoor Meera	151077101019	27
15	T.Sridevi Naga valli	151077101020	38

  
(VSV KRISHNA MURTY)

  
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# GOVERNMENT DEGREE COLLEGE

RAZOLE, Dr B R AMBEDKAR KONASEEMA (Dist), A.P-533242

NAAC Re-Accredited with 'B' Grade



## DEPARTMENT OF MATHEMATICS

Razole  
21-09-2017

To,  
The Principal  
Government Degree College  
Razole

Sir,

Sub: Government Degree College, Razole – Department of Mathematics -  
Certificate course in QUANTITATIVE APTITUDE -2017-18- Submission of Work  
done statements and related documents -- Regarding.

\*\*\*\*\*

I humbly submit that the Department of Mathematics has organized a  
Certificate course from 18-08-2017 to 20-09-2017 under the title "QUANTITATIVE  
APTITUDE" during 2017-18. The statement showing the work done together with the  
details of number of hours and the name of the faculty taught are submitted  
herewith.

Thanking you sir

Yours faithfully,

(VSV KRISHNA MURTHY)