



**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE  
(WOMEN)**

**HRD campus, DEVARAKONDA, NALGONDA-508248 (College code: 4133)**  
**Affiliated to Mahatma Gandhi University, Nalgonda.**  
**e-mail: [twrdcgirls.devarakonda@gmail.com](mailto:twrdcgirls.devarakonda@gmail.com); Mobile No:9908330585**



To  
The Principal,  
TTWR Degree College (W),  
Devarakonda.

Sub: Requesting for approval to start certificate course for all Final year students-Reg.

Respected madam,

With the subject cited above, here I am writing to bring to your kind notice that, Department of mathematics would like to start a certificate course on “Logical Reasoning “ for all final year students. The course consists of verbal and nonverbal topics. The duration of course is 30 hours. The objective of the certificate course is to develop student’s ability to think through problems and apply strategies for solving them. The course helps the students to prepare for various competitive exams.

Hence I request you to permit me to start certificate course on Logical Reasoning.

Thanking you,

Yours faithfully,  
Department of Mathematics,  
T.T.W.R.D.C(W)-Devarakonda.

**T.T.W.R.DEGREE COLLEGE (W)-DEVARAKONDA**  
**DEPARTMENT OF MATHEMATICS**

**NOTICE:**

Department of Mathematics announcing Certificate Course on “ Logical Reasoning” for Final year students. The duration of the course is 30 hours (01/02/2020 to 15/03/2020). Regularity to classes is mandatory. Certificates will be provided based on exam conducted, after completion of course. Interested candidates may give their names.

**Department of Mathematics**

**T.T.W.R.DEGREE COLLEGE (W)-DEVARAKONDA**  
**CERTIFICATE COURSE ON LOGICAL REASONING-SYLLABUS**  
**DEPARTMENT OF MATHEMATICS**

Duration :30 hours

- **Analogy:** Alphabet analogy and Numbers analogy
- **Coding and Decoding:** Letters coding, numbers coding, substitution coding, symbol coding
- **Series completion:** Alphabet series, Number series, Mixed Series, Alphanumeric series
- Miscellaneous Logical Puzzeles
- Logical deduction
- Water images
- Calendar
- Clock
- Syllogism
- Time, speed and Work
- Time and distance
- Direction Test

## T.T.W.R.DEGREE COLLEGE (W)-DEVARAKONDA

### SCHEDULE OF CERTIFICATE COURSE(LOGICAL REASONING)

<b>DAY</b>	<b>TOPIC</b>
Day-1	Analogy
Day-2	Practice session
Day-3	Coding -Decoding
Day-4	Coding -Decoding
Day-5	Practice session
Day-6	Series completion
Day-7	Series completion
Day-8	Practice session
Day-9	Logical deduction
Day-10	Logical deduction
Day-11	Practice session
Day-12	statement -Conclusion
Day-13	Miscellaneous Logical Puzzeles
Day-14	Practice session
Day-15	Water images
Day-16	Water images
Day-17	Practice session
Day-18	Calendar
Day-19	Calendar
Day-20	Practice session
Day-21	Clock
Day-22	Clock
Day-23	Practice session
Day-24	Syllogism
Day-25	Time,speed and Work
Day-26	Time and distance
Day-27	Practice session
Day-28	Direction Test
Day-29	Direction Test
Day-30	Practice session

'Logical Reasoning' Certificate Course

2019-20

Attendance

S.NO	Name of the student	Group	February											March											Total									
			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	26	27	28	29	30	31
1	A. Shailaja	BZC	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	26	27	28	29	30	31	32
2	B. Santhosha	BZC	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	26	27	28	29	30	31	32
3	Ch. Ashwini	BZC	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	26	27	28	29	30	31	32
4	D. Sandhya	BZC	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	26	27	28	29	30	31	32
5	D. Savithri	BZC	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	26	27	28	29	30	31	32
6	E. Sandhya	BZC	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	26	27	28	29	30	31	32
7	G. Mamatha	BZC	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	26	27	28	29	30	31	32
8	U. Ganga bhavani	BZC	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	26	27	28	29	30	31	32
9	Gr. Geetha	BZC	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	26	27	28	29	30	31	32
10	J. Saritha	BZC	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	26	27	28	29	30	31	32
11	K. Anusha	BZC	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	26	27	28	29	30	31	32
12	K. Nagalaxmi	BZC	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	26	27	28	29	30	31	32
13	K. Anusha	BZC	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	26	27	28	29	30	31	32
14	K. Manjula	BZC	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	26	27	28	29	30	31	32
15	L. Alivelu mangamma	BZC	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	26	27	28	29	30	31	32
16	M. Rajeshwari	BZC	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	26	27	28	29	30	31	32
17	M. Niharika	BZC	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	26	27	28	29	30	31	32
18	P. Pavithra	BZC	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	26	27	28	29	30	31	32
19	P. Yamuna	BZC	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	26	27	28	29	30	31	32
20	R. Anitha	BZC	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	26	27	28	29	30	31	32
21	V. Jada	BZC	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	26	27	28	29	30	31	32
22	V. Divya	BZC	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	26	27	28	29	30	31	32
23	V. Manisha	BZC	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	26	27	28	29	30	31	32
24	B. Moonika	MPCS	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	26	27	28	29	30	31	32
25	B. Maheshwari	MPCS	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	26	27	28	29	30	31	32
26	Gr. Swathi	MPCS	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	26	27	28	29	30	31	32
27	K. Rajeshwari	MPCS	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	26	27	28	29	30	31	32
28	M. Premalatha	MPCS	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	26	27	28	29	30	31	32
29	N. Sowjanya	MPCS	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	26	27	28	29	30	31	32
30	N. Pooja	MPCS	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	26	27	28	29	30	31	32
31	N. Deepthi	MPCS	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	26	27	28	29	30	31	32
32	O. Jhansi	MPCS	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	26	27	28	29	30	31	32
33	P. Sandhya	MPCS	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	26	27	28	29	30	31	32

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Joshi

# Logical Reasoning

S.No	Name of the student	Group	1	2	3	4	5	6	7	8	9	10
34	P. Thulasi	MPCs	1	2	3	4	5	6	7	8	9	10
35	S. Pushpalatha	MPCs	a	a	a	1	2	3	4	5	6	7
36	A. Mounika	MBZC	1	2	3	4	5	6	7	8	9	10
37	B. Sushma	MBZC	1	2	3	4	5	6	7	8	9	10
38	B. vennela	MBZC	1	2	3	4	5	6	7	8	9	10
39	B. Navaneetha	MBZC	1	2	3	4	5	6	7	8	9	10
40	D. Sanathya	MBZC	1	2	3	4	5	6	7	8	9	10
41	D. Sangeetha	MBZC	1	2	3	4	5	6	7	8	9	10
42	D. Saritha	MBZC	1	2	3	4	5	6	7	8	9	10
43	D. Anusha	MBZC	1	2	3	4	5	6	7	8	9	10
44	G. Priyanka	MBZC	1	2	3	4	5	6	7	8	9	10
45	G. Shirisha	MBZC	1	2	3	4	5	6	7	8	9	10
46	J. Chondhana	MBZC	1	2	3	4	5	6	7	8	9	10
47	J. Kalthuri	MBZC	1	2	3	4	5	6	7	8	9	10
48	K. Soniya	MBZC	1	2	3	4	5	6	7	8	9	10
49	L. Nayanasi	MBZC	1	2	3	4	5	6	7	8	9	10
50	M. Lakshmi parvathi	MBZC	1	2	3	4	5	6	7	8	9	10
51	M. Shailaja	MBZC	1	2	3	4	5	6	7	8	9	10
52	N. Anusha	MBZC	1	2	3	4	5	6	7	8	9	10
53	P. Aruna	MBZC	1	2	3	4	5	6	7	8	9	10
54	P. Laxmi	MBZC	1	2	3	4	5	6	7	8	9	10
55	P. Sai pallavi	MBZC	1	2	3	4	5	6	7	8	9	10
56	P. Beularani	MBZC	1	2	3	4	5	6	7	8	9	10
57	P. Swathi	MBZC	1	2	3	4	5	6	7	8	9	10
58	U. Raj kumari	MBZC	1	2	3	4	5	6	7	8	9	10
59	V. Silatha	MBZC	1	2	3	4	5	6	7	8	9	10
60	Y. Buvaneshari	MBZC	1	2	3	4	5	6	7	8	9	10
61	B. Nagamma	B.com (Computer)	1	2	3	4	5	6	7	8	9	10
62	Ch. Kavitha	B.com (Computer)	1	2	3	4	5	6	7	8	9	10
63	E. Santosha	B.com (Computer)	1	2	3	4	5	6	7	8	9	10
64	K. Chandrakala	B.com (Computer)	1	2	3	4	5	6	7	8	9	10
65	K. Indusha	B.com (Computer)	1	2	3	4	5	6	7	8	9	10
66	K. Shirisha	B.com (Computer)	1	2	3	4	5	6	7	8	9	10

# Certificate Course Attendance

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

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'Logical Reasoning' - Certificate Course Attendance  
2019-20

Sno	Name of the student	Group	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	26	27	28	29	30	Att
67	K. Mamatha	B.com (computer)	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	26	27	28	29	30	30
68	J. Lakshmi	B.com (computer)	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	26	27	28	29	30	30
69	M. Gouthami	B.com (computer)	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	26	27	28	29	30	32
70	M. Ganga	B.com (computer)	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	26	27	28	29	30	32
71	R. Kavi tha	B.com (computer)	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	26	27	28	29	30	30
72	N. Shirisha	B.com (computer)	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	26	27	28	29	30	28
73	P. Anusha	B.com (computer)	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	26	27	28	29	30	34
74	V. Swapna	B.com (computer)	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	26	27	28	29	30	34
		B.com (computer)	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	26	27	28	29	30	34

Jasbir

**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE FOR WOMEN, DEVERAKONDA**

**NAME OF THE STUDENT:** \_\_\_\_\_ **GROUP:** \_\_\_\_\_

**HALL TICKET NUMBER:** \_\_\_\_\_

**TIME:60 Mins**

**Marks: 50 marks**

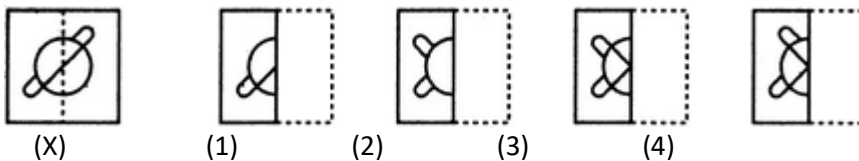
**Each question carries 2 marks**

1. In a certain language , if **WRONG** is coded as **GNORW** then how will **RIGHT** be coded ? [ ]  
a) HIRGT    b) SJHIU    c) GHIRT    d) THGIR
2. Anil introduces Rohit as the son of the only brother of his father's wife . How is Rohit related to Anil ? [ ]  
a) Cousin    b) Son    c) Uncle    d) Son-in-Law
3. Arrange the words given below in a meaningful sequence [ ]  
1) Police    2) Punishment    3) Crime    4) Judge    5) Judgement  
a) 3,1,2,4,5    b) 1,2,4,3,5    c) 5,4,3,2,1    d) 3,1,4,5,2
4. What day falls on 15<sup>th</sup> august 1974? [ ]  
a) Monday    b) Thursday    c) Friday    d) Saturday
5. If  $4a = 5b$  &  $8b = 9c$  & find  $a:b:c$  [ ]  
a) 45:36:32    c) 8:9:12  
b) 45:15:13    d) 24:20:15
6. The angle between hours hand and minutes hand at 10.00 is?  
a) 60    b) 80    c) 90    d) 95
7. Arrange the following in a logical orders :  
1) Gold    2) Iron    3) Sand    4) Platinum    5) Diamond  
a) 2,4,3,5,1    b) 3,2,1,5,4    c) 4,5,1,3,2    d) 5,4,3,2,1
8. 15 men can type 3240 pages in 6 days working 2 hours per day .how many men would be required to type 5400 pages working 4 hours per day for 3 days ? [ ]  
a) 25    b) 20    c) 15    d) 10
9. Two pipe A and B can fill a tank in 6 hours and 4 hours respectively .If they opened on alternate hours and if pipe A is opened first in how many hours tank is full ? [ ]  
a) 4hrs    b) 5 hrs    c) 6hrs    d) 7 hrs
10. Identify leap year [ ]  
a) 1300    b) 1400    c) 1600    d) All the above
11. A train running at the speed of 60km/hr crosses a pole in 9 seconds . What is the length of the train ? [ ]  
a) 120 meters    b) 180meters    c) 324meters    d) 150meters
12. What is the unit digit in the product  $(3^{65} \times 6^{59} \times 7^{71}) = ?$  [ ]  
a) 1    b) 2    c) 4    d) 6
13. By selling an article for Rs.600 more , Karthik would have made 5% profit on his sale instead of a 11% loss. What was his cost price ? [ ]  
a) Rs.3750    b) Rs.4000    c) Rs. 2250    d) Rs.6000
14. In a certain code 'MISSIONS' is writes as 'MSIISNOS' how is 'ONLINE' written in that code? [ ]  
a) OLNIE    b) ONILEN    c) ONNLIE    d) NOILEN
15. A fruit seller had some apples . He sells 40% apples and still has 420 apples .originally he had how many apples [ ]  
a) 588 apples    b) 600apples    c) 672apples    d) 700apples



16. The six digit number 54321A is divisible by 9 where A is single digit whole number .  
Find A ? [ ]  
a) 0 b) 2 c) 4 d) 3
17. Simplify the expression :  $18 - [6 - \{4 - (8 - 6 + 3)\}]$  [ ]  
a) 16 b) 17 c) 18 d) 20
18. The product of 40 add numbers is [ ]  
a) Even b) odd c) 625 d) None
19. Find the missing number in the series ? [ ]  
a) 48 b) 50 c) 58 d) 60
20. The reflex angle between the hands of a clock at 10.25 is : [ ]  
a) 180 b)  $192 \frac{1}{2}$  c) 195 d) 197
21. Look at this series: 80,10,70,15,60,..... What number should come next ? [ ]  
a) 20 b) 25 c) 30 d) 50
22. Melt : Liquid :: Freeze : ? [ ]  
a) Ice b) Solid c) Condense d) Push
23. Odometer is to mileage as compass is to [ ]  
a) Speed b) Hiking c) Needle d) Direction
24. Which word does NOT belong with the others ? [ ]  
a) Leopard b) Cougar c) Elephant d) Lion
25. Optimist is to cheerful as pessimist is to [ ]  
a) Gloomy b) Mean c) Petty d) Helpful

29. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line. [ ]



- a) 1 b) 2 c) 3 d) 4

30. Select a suitable figure from the Answer Figures that would replace the question mark (?). [ ]

Problem Figures:



- (A) (B) (C) (D)

Answer Figures:



- (1) (2) (3) (4) (5)

- a) 1 b) 2 c) 3 d) 4

**T.T.W.R.DEGREE COLLEGE (W)-DEVARAKONDA**  
**DEPARTMENT OF MATHEMATICS**  
**LOGICAL REASONING CERTIFICATE COURSE REPORT**

Logical reasoning consists of aptitude questions that require logical level of analysis to arrive the correct solution.

**COURSE OBJECTIVES:**

To develop logical reasoning skills and to improve problem solving skills.

Logical reasoning Certificate course is conducted for interested final year students to make them ready to face the competitive world. The course consists of total 30 hours i.e., 20 theory sessions 1 hour each and 10 hours of practice sessions from 03/02/2020 to 13/03/2020. Examination conducted for students after completion of the course. The certificates will be given to students based on performance in the test.

**Outcomes:** It provided students the confidence to face various competitive exams after graduation.

Student Feedback On  
Certificate Course (Logical Reasoning)  
2019-20.

I am G. Swathi. I am from MPCC this logical reasoning class is useful to my ICET pre-preparation, some of the topics will be useful for job purpose. My goal is to do MBA so, this class helped me in my education. Thank you madam for sharing your knowledge.

G. Swathi  
MPCC III

I am M. Premalatha I am from MPCs this logical reasoning class is useful to in every field and it is helped me for my group preparation. Mainly I learned in the logical reasoning class Coding and de-coding. Thank you madam for helping me to learn it for my group preparation.

M. Premalatha  
MPCs III

I am P. Saipallavi from MBZC verbal reasoning class is very interesting subject and it is necessary for every government jobs. Verbal reasoning class helped me to crack government job. Thank you madam for your valuable class.

P. Saipallavi  
MBZC - III

I am V. Swapna from B.Com. I learned cubes, squares and Dice from verbal reasoning. This class is useful to my ICET preparation. In this class I learned to solve problems in a logical way. Thanks madam for your wonderful class.

V. Swapna  
B.Com - III

I am A. moonika from MBZC. your class was very interesting - class. and your knowledge also helped to us. we are very instructed to listen your competition class madam. your teaching way is helped me to learn more.

A. Moonika  
MBZC III

I am K. Chandrakala from B.com Final Year. I learned cubes, squares, and Dices and melting numbers. this class is useful to my Govt. Job preparation. in this class I learned to solve problems in a logical way madam. and your class is very interesting madam.

Thanks madam

K. Chandrakala  
B. Com III



**T.T.W.R.D.C(W)-DEVARAKONDA**



***CERTIFICATE***

OF COMPLETION

This is to certify that Ms/Mrs. \_\_\_\_\_ Year \_\_\_\_\_ had undergone  
intensive training in **LOGICAL REASONING**

and has successfully completed the training program at college level  
organized by Department of Mathematics during the academic year 2019-20 .

Sd/-  
HOD

Sd/-  
PRINCIPAL



**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE  
(WOMEN)**

**HRD campus, DEVARAKONDA, NALGONDA-508248 (College code: 4133)**

**Affiliated to Mahatma Gandhi University, Nalgonda.**

**e-mail: [ttwrdegirls.deverakonda@gmail.com](mailto:ttwrdegirls.deverakonda@gmail.com); Mobile No:9908330585**



To

The Principal,

TTWR Degree College (W),

Devarakonda.

Sub: Requesting for approval to start certificate course for all Final year students-Reg.

Respected madam,

With the subject cited above, I would like to propose a certificate course to make the students to face the challenges of current competitive world. Department of Mathematics would like to start a certificate course on "Non-Verbal Reasoning "for interested final year students. The duration of course is 30 hours. The course helps the students to prepare for various competitive exams.

Hence, I request you to permit me to start certificate course on Logical Reasoning.

Thanking you,

Yours faithfully,

Department of Mathematics,

T.T.W.R.D.C(W)-Devarakonda

## T.T.W.R.DEGREE COLLEGE (W)-DEVARAKONDA

### SCHEDULE OF CERTIFICATE COURSE(NON-VERBAL REASONING)2021-22

<b>DAY</b>	<b>TOPIC</b>
Day-1	Completion of series
Day-2	Completion of series
Day-3	Practice session
Day-4	Analogy
Day-5	Analogy
Day-6	Practice session
Day-7	Classification
Day-8	Classification
Day-9	Practice session
Day-10	Counting figures
Day-11	Counting figures
Day-12	Practice session
Day-13	Completion of Figures
Day-14	Completion of Figures
Day-15	Practice session
Day-16	Dice
Day-17	Dice
Day-18	Practice session
Day-19	Cubes
Day-20	Cubes
Day-21	Practice session
Day-22	Water Images
Day-23	Water Images
Day-24	Practice session
Day-25	Mirror images
Day-26	Mirror images
Day-27	Practice session
Day-28	Paper folding
Day-29	Paper folding
Day-30	Practice session



**T.T.W.R.DEGREE COLLEGE (W)-DEVARAKONDA**  
**NON-VERBAL REASONING-SYLLABUS (2021-22)**  
**DEPARTMENT OF MATHEMATICS**

Duration :30 hours

- Completion of series: Choosing the next term in the series- Choosing the missing figure in the series- Detection of incorrect order in the Series- Detecting the wrong figure in the series.
- Analogy: Choosing one element of a similarly related pair- Finding the odd pair of figures- Finding a pair of similar figures in pattern to original pair- Finding the pair of figures having pattern other than the original pair- Selecting the correct figure on the basis of analogous figure- Selecting the correct set of figures to establish analogy
- Classification: Choosing the odd figure- Choosing figure with same characteristics
- Counting figures: Counting of straight lines , Triangles and rectangles
- Completion of Figures: Rotational symmetry through and Angle of 90 degree- Diagonally opposite parts are similar- Based on certain design and pattern
- Dice: Finding Digits/Dots/Letters/Colours on the Opposite Face of any Particular Face- Questions related to unfolded dice
- Cubes: Cutting of a cube or cuboid- Counting of blocks
- Mirror images: Vertical mirror- Horizontal mirror-Mirror image of letters and alphabets
- Water Images: Water Image of figure/symbol/sign- Water Image of Letters and Numbers





The department of Mathematics has conducted Certificate course in 'Non-Verbal Reasoning', to make students to face the challenges to face competitive world. The course is conducted for 30 hours (1 hour per day for 30 days) i.e., from 1<sup>st</sup> April, 2022 to 12<sup>th</sup> May 2022.

The list of students :

- ① B. Ashwini
- ② D. Mounika
- ③ M. Jyothi
- ④ E. Lavanya
- ⑤ P. Mamatha
- ⑥ P. Shilpa
- ⑦ S. Santhu
- ⑧ T. Pallavi
- ⑨ A. Aruna
- ⑩ B. Vennela
- ⑪ K. Chandana
- ⑫ B. Vidhya
- ⑬ P. Dhanalaxmi
- ⑭ V. Sri Laxmi
- ⑮ V. Sunitha
- ⑯ P. Roopa
- ⑰ G. Mounika
- ⑱ K. Sri Devi
- ⑲ M. Deepika
- ⑳ P. Mounika
- ㉑ U. Ashwini
- ㉒ V. Padma
- ㉓ B. Kalpana

- ㉔ P. Jansirani
- ㉕ A. Anitha
- 26 A. Vani
- 27 D. Jansi
- 28 CH. Naraya
- 29 G. Lavanya
- 30 T. Gayathri
- 31 K. Thiru pathamma
- 32 M. Kalpana
- 33 N. Rajitha
- 34 V. Indira
- 35 A. Pragathi
- 36 D. Jadhavathi
- 37 K. Mounika
- 38 R. Akhila
- 39 R. Shailaja
- 40 R. Sindhya Rani
- 41 S. Bhadri
- 42 R. Neelavathi

# T.T.W.R.D C [W] DEVARAKONDA

## NON VERBAL REASONING QUESTION PAPER

Answer all the following questions. Each question carries 02 marks. There will be no negative marking. 25 X2 =50M

1. in the series 2, 6, 18, 54, what will be the 8th term?

- A) 4374      b) 4370      c) 4001      d) 4371

2. What comes next in the series: 5, 10, 20, 40...?

- a) 90      b) 81      c) 80      d) 10

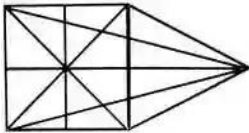
3. India: New Delhi:: France:?

- a) Paris      b) Rome      c) England      d) Iceland

4. Genuine: Authentic:: Mirage : ?

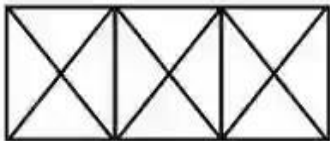
- a) Illusion      b) Image      c) Reflection      d) Hideout

5. What is the number of straight lines in the following figure?



- a)23      b) 11      c) 21      d)12

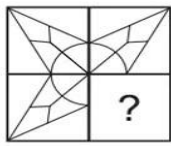
6. How many Triangles are there in a given figure?



- a ) 24      b) 27      c) 28      d)9

7. Select a suitable figure from the four alternatives that would complete the figure...

Question Figure



Answer Figure

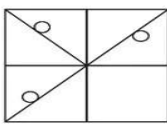


(a) (b) (c) (d)

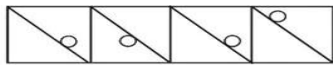
v

8. Following Question has four alternatives, among which completes the figures.

Question Figure

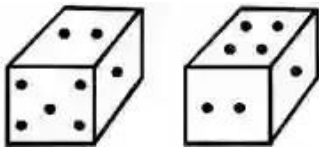


Answer Figure



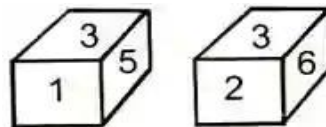
(a) (b) (c) (d)

9. Two positions of dice of the figure are shown below. Find how many points will appear on the face opposite of face 5 points?



a) 6      b) 4      c) 9      d) 5

10. Two different positions of a dice are shown below. Find out which number will appear on



the face opposite to the face of number 5?

a) 6      b) 3      c) 2      d) 1

11. What is the lateral surface area of a cube whose edge is given as 9 cm?

a)  $324 \text{ cm}^2$ .    b)  $327 \text{ cm}^2$ .    c)  $424 \text{ cm}^2$ .    d)  $254 \text{ cm}^2$ .

12. A cube has a TSA of  $486 \text{ cm}^2$ . Find its lateral surface area.

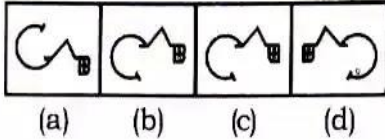
- a)  $354 \text{ cm}^2$    b)  $324 \text{ cm}^2$ .   c)  $524 \text{ cm}^2$ .   d)  $254 \text{ cm}^2$ .

13. Find the Mirror Image of Reasoning Question.

**Question Figure:-**

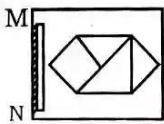


**Answer Figures:-**

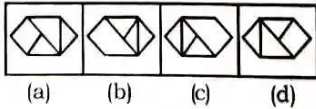


14. Find the Mirror Image of Given Figure below

**Question Figure:-**



**Answer Figures**



15. Choose the alternative which closely resembles the mirror image of the given combination.

ANS43Q12

- (1) ANZ43Q12   (2) 210342NA  
 (3) 2NAE4Q21   (4) 120342NA

16. Choose the alternative which closely resembles the mirror image of the given combination.

TARAIN1014A

- (1) APT01MIARAL   (2) A101MIARAT  
 (3) NIARAT101A   (4) APT01MIARAT

17. If EARTH is written as FCUXM in a certain code. How is MOON written in that code?

- a) OPRS   b) NQRS   c) NQQR   d) NQRR

18. If DELHI is written as EDMGJ in a certain code. How is NEPAL written in that code?

- a) ODQZM    b) OCPAN    c) POQZM    d) OCQZN

19. Statements: All dogs are mammals. All mammals have lungs.

Conclusions:

- I. All dogs have lungs.  
II. All dogs are animals.

Options:

- a) Only conclusion I follows  
b) only conclusion II follows  
c) Both I and II follow  
d) neither I nor II follow

20. Statements: All doctors are humans. Some humans are musicians.

Conclusions:

- I. All musicians are doctors.  
II. Some doctors are musicians.

Options:

- a) Only conclusion I follows  
b) only conclusion II follows  
c) Both I and II follow  
d) neither I nor II follows



21. A can do a work in 15 days and B in 20 days. If they work on it together for 4 days, then the fraction of the work that is left is: a)  $\frac{7}{15}$  b)  $\frac{8}{15}$  c)  $\frac{4}{15}$  d)  $\frac{6}{14}$

22. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?

- a) 15      b) 12      c) 13      d) 16

23. When the clock shows 2 o'clock in the afternoon? 23. An accurate clock shows 8 o'clock in the morning. Through how many degrees will the hour hand rotate?

- a) 240      b) 120      c) 160      d) 180

24. The reflex angle between the hands of a clock at 10.25 is:

- a)  $167\frac{1}{2}$ degrees    b)  $197\frac{1}{2}$ degrees    c)  $157\frac{1}{7}$ degrees    d)  $197\frac{1}{5}$ degrees

25. It was Sunday on Jan 1, 2006. What was the day of the week Jan 1, 2010?

- a) Monday      b) Saturday      c) Friday      d) Sunday
-

Students Feedback

I am A. Vani. I am from MPES this logical reasoning classes are very useful to My ICET Preparation. Some of the topics will very useful for all competitive exams. My goal is to do MBA, so this classes helped me in my education. Thanks madam for sharing your knowledge.

A. Vani

MPES III

I am P. Roopa I am from BA final Year I learned Cubes, Squares, and Dies and missing numbers. This class is useful to My Govt. Jobs preparation. In this class I learned to solve problems in a logical way madam and your class is very in Spiring madam.

Thank you madam

P. Roopa

B.A III

I am M. Kalpana. I am from MPES this logical reasoning class is useful to in every field and it is helped me for my group preparation. Mainly I learned in the logical reasoning class coding and de-coding. Thank you madam for helping me to learn it for my group preparation.

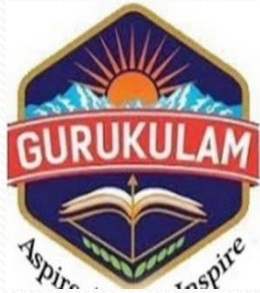
M. Kalpana

MPES III

I am U. Ashwini. I am from MBZC verbal reasoning class is very intrusting subject and it is necessary for every government jobs. verbal reasoning class helped me to crack government job. Thank you madam for your valuable class.

U. Ashwini

MBZC III



**T.T.W.R.D.C(W)-DEVARAKONDA**



## CERTIFICATE

OF COMPLETION

This is to certify that Ms/Mrs. \_\_\_\_\_ Year \_\_\_\_\_ had undergone intensive training in **NON-VERBAL REASONING** and has successfully completed the training program at college level organized by Department of Mathematics during the academic year 2021-22.

Sd/-  
HOD

Sd/-  
IQAC

Sd/-  
PRINCIPAL