This test in not conducted by TCS directly, but by a consultancy, named Venture Management Associates, based in Trivandrum, Kerala.

## Directions:

The duration of the test is 2 hours. The test is divided into 3 parts.

| Part I | English Synonyms etc | 34 Questions |  |
| :--- | :--- | :---: | :--- |
| Part II | Arithmetic | 32 Questions | Total: 78 Questions |
| Part III | Critical Reasoning | 12 Questions. |  |

Part I and Part III are Multiple Choice Questions and Part II is filling up the Blanks model.
There are 10 synonyms, 10 antonyms, both of MCQ type.
In section I there is a passage with seven blank spaces and nine sentences as answer choices. This passage is about 'mind power'. You have to choose the correct sentence and put the correct choice in the appropriate blank in the main passage. You have to be thorough with the English to answer this Question. The rest of the section is simple Mathematics problems. It would be good if you take a quick glance to the +2 Maths, since they ask questions curves, equations and gradients.

Section II consists of simple arithmetic problems and some reasoning problems. You have write the answer on the answer sheet and no choices are given.

Section III is "Critical Reasoning", and the questions are of MCQ type.
They have SIX Question paper sets, named A, B, C, D, E and F. We have tried to draw a general pattern and have included many sample questions which are in the same pattern with the papers.

## SYNONYMS

CENSURE
a. purify
b. approve
c. edit
d. uncertain

ONUS
a. honest
b. inclination
c. responsibility
d. accuse

DIVERGENT
a.

EFFUSIVE
a. wise
b. reserved
c. peaceful
d. spontaneous

GREGARIOUS
a. logical
b. helpful
c. solitary
d. noisy

EMPIRICAL
a. theoretical

SACROSANCT
a. too important
b. worship
c. sacrifice
d. best

## CLUTCH

a.
b.
c.
d.

## AUGMENT

a. decrease
b.
b. mathematical
b. belittle
c. deviating
c. verbal
c. simplify
d. royal
d. magnify

FIDELITY
a. restlessness
b. disloyalty
c. feeble
d. vagueness

SURVEILLANCE
a. inattention
b. visibility
c. census
d. prevention

## WHIMSICAL

a. victorious
b. swift
c. fanciful
d. momentary

NASCENT
a. threat
b. purpose
c. quality
d. emerging

## BENIGN

a. kindly
b. malignant
c. envy
d. tenfold

ANALOGOUS
a. capable
b. culpable
c. comparable
d. corporeal

ATTENUATE
a. appear
b. weaken
c. testify
d. soothe

CITE
a. galvanize
b. quote
c. locate
d. visualize

TENACIOUS
a. intentional
b. obnoxious
c. holding fast
d. collecting

TRANSIENT
a. ephemeral
b. permanent
c. clear
d. emptiness

VOLUBLE
a. worthwhile
b. loquacious
c. circular
d. serious

CANDID
a. vague
b. outspoken
c. experienced
d. anxious

VERACITY
a.
b.
c. truthfullness
d.

STANDING
a. reputation
b. activity
c. long time
d. duration

## GENERIC

a. external
b. particular
c. personal
d. subdued

## DIVULGE

a. look
b. refuse
c. deride
d. reveal

## EFFIGY

a. dummy
b. organ
c. charge
d. accordion

PRECARIOUS
a. hazardous
b. priceless
c. premature
d. primitive

## SONOROUS

a. reassuring
b. resonant
c. repetitive
d. sisterly

CIRCUITOUS
a. indirect
b. complete
c. obvious
d. aware

## PEDIGREE

a. dogs
b. vast
c. courage
d. line of ancestry

ANTONYMS:

EXPEDIENT
a. illiterate
b. delayed
c. mistake
d. impediment

IRRADIATE
a. agreement
b. distance
c. flight
d. clarity

ANOMALY
a. desperation
b. requisition
c. registry
d. regularity

## BENIGN

a. peaceful
b. blessed
c. wavering
d. malignant

ANALOGUE
a. same
b. digital
c. lengthy
d. dull

ANALOGOUS
a. not comparable
b. not capable
c. not culpable
d. not congenial

CENSURE
a. process
b. enclose
c. praise
d. penetrate

DIVULGE
a. converge
b. intake
c. involve
d. conceal

SURVEILLANCE

DANGLE
a. hanging
b. loose
c. secure
d. mingle

SPENDTHRIFT
a. miser
b. savings
c. cautious
d. extravagant

INDIGENOUS
a.
b.
c.
d.

CRYPTIC
a. futile
b. famous
c. candid
d. indifferent

OPTIMUM
a. pessimistic
b. minimum
c. chosen
d. worst

RETROGRADE
a. progressing
b. inclining
c. evaluating
d. concentrating

TRANSIENT
a. carried
b. close
c. permanent
d. certain

VERITY
a. falsehood
b. sanctity
c. rarity
d. household

CENSURE

## AUGMENT

a. keep away
b. be disturbed
c. to increase
d. dig out

BOLSTER
a. defeat
b. to strengthen
c. be angry
d. depth

## COMPLIANCE

a. light
b. fresh
c. take away
d. energize

DEBILITATE
a. balmy
b. bedevil
c. animate
d. deaden

## DEROGATORY

a. roguish
b. immediate
c. conferred
d. praising

## ERRONEOUS

a. accurate
b. dignified
c. curious
d. abrupt

EXONERATE
a. forge
b. accuse
c. record
d. reimburse

## GREGARIOUS

a. anticipating
b. glorious
c. antisocial
d. similar

OBJECTIVE
a. inattention
a. augment
a. indecisive
b. visibility
b. eradicate
b. apathetic
c. census
c. enthrall
c. emotionally involved
d. prevention
d. commend
d. authoritative

## HAMPER

a.
b.
c.
d.

## EMPIRICAL

a. theoretical
b. mathematical
c. verbal
d. royal

## SECTION I

## 1. If VXUPLVH is written as SURMISE, what is SHDVD ?

Ans. PEASA (hint: in the first word, the alphabets of the jumbled one is three alphabets after the corresponding alphabet in the word SURMISE. $\mathrm{S}=\mathrm{V}-3$, similarly find the one for SHDVD)
2. If DDMUQZM is coded as CENTRAL then RBDJK can be coded as

Ans. QCEIL (hint: Write both the jumbled and the coded word as a table, find the relation between the corresponding words, i.e $\mathrm{C}=\mathrm{D}-1, \mathrm{~N}=\mathrm{M}+1 \&$ so on
3. In the word ECONOMETRICS, if the first and second, third and forth ,forth and fifth, fifth and sixth words are interchanged up to the last letter, what would be the tenth letter from right?

Ans. word is CENOMOTEIRSC tenth word is $R$
4. Find the result of the following expression if, M denotes modulus operation, R denotes round-off, T denotes truncation: $\mathrm{M}(373,5)+\mathrm{R}(3.4)+\mathrm{T}(7.7)+\mathrm{R}(5.8)$

Ans. 19
5. What is the largest prime number that can be stored in an 8 -bit memory?

Ans.
6. Find the physical quantity in units from the equation: (Force*Distance)/(Velocity*Velocity)

Ans. $N s^{2} / m$
7. Find the value of @ @+25-++@16, where @ denotes "square" and + denotes "square root".

Ans: 621
8. If $f(0)=1$ and $f(n)=f(n-1) * n$, find the value of $f(4)$.

Ans: 24
9. Convert the decimal number 310 to the base 6 .

Ans: 1234
10. Find the missing number in the series: $2,5, \ldots, 19,37,75$

Ans: 9
11. In a two-dimensional array, $X(9,7)$, with each element occupying 4 bytes of memory, with the address of the first element $\mathrm{X}(1,1)$ is 3000 , find the address of $\mathrm{X}(8,5)$.

Ans.
12. Find the fourth row, having the bit pattern as an integer in an 8-bit computer, and express the answer in its decimal value.

$$
\begin{array}{rllllllll}
\text { A } & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 \\
\mathrm{~B} & 0 & 0 & 1 & 1 & 0 & 0 & 1 & 1 \\
\mathrm{C} & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 \\
\text { (AU(B-C)) } & ? & & & & & & & \\
\text { Ans. } & 29 & & & & & & &
\end{array}
$$

13. Complete the series $2,7,24,77$,_ (hint: $2 * 12=24,7 * 11=77$, therefore $24 * 10=240$ )

$$
\text { Ans: } 240
$$

14. Consider the following diagram for answering the following questions:

A. Find the difference between people playing cricket and tennis alone.

Ans: 4
B. Find the percentage of people playing hockey to that playing both hockey and cricket. Ans:
C. Find the percentage of people playing all the games to the total number of players.

Ans: 6\%
15. One more question of the same type (Same type of diagram; of course in a different set)

1. How many more or less speak English than French?
2. What \% people speak all the three languages?
3. What \% people speak German but not English?
\{In another set cricket, hockey and tennis are changed with the name of some computer languages, such as Java, Cobol, Fortran (may be some other name) \}
4. Select the odd one out
a. Oracle
b. Linux
c. Ingress
d. DB2
5. Select the odd one out
a. SMTP
b. WAP
c. SAP
d. ARP
6. Select the odd man out.
a. Java
b. Lisp
c. Smalltalk
d. Eiffel
7. Which of the following are orthogonal pairs?
a. $3 \mathrm{i}+2 \mathrm{j}$
b. $i+j$
c. $2 \mathrm{i}-3 \mathrm{j}$
d. $-7 i+j$
8. Number of faces, vertices and edges of a cube
a. $12,8,6$
b. $4,6,8$
c. $6,8,12$
d. $6,12,8$
9. Given a Bar Chart showing the sales of a company. (In Figure) The sales in years as shown in the figure are (in crores) 1998-1999-130, 1997-1998-90, 1996-1997-90, 1995-1996-70
10. The highest growth rate was for the year

Ans. 1998-1999
2. The net increase in sales of the company in the year span of 1995-1999

Ans. 60 crores.
3. The lowest growth rate was for the year

Ans. 1997
22. Find the value of the decimal number to the base 7.

Ans. 1436.
23. Complete the series:5,6,7,8,10,11,14, $\qquad$ .
Ans. 15
24. If the vertex $(5,7)$ is placed in the memory. First vertex $(1,1)$ ' $s$ address is 1245 and then address of $(5,7)$ is

Ans.
25. In which of the system, decimal number 384 is equal to 1234 ?

Ans.
26. A man, a woman, and a child can do a piece of work in 6 days. Man only can do it in 24 days. Woman can do it in 16 days and in how many days child can do the same work?

Ans.
27. In Madras, temperature at noon varies according to $-t^{\wedge} 2 / 2+8 t+3$, where $t$ is elapsed time. Find how much temperature more or less in 4 pm to 9 pm .

Ans.
28. The size of the bucket is Nkb . The bucket fills at the rate of 0.1 kb per millisecond. A programmer sends a program to receiver. There it waits for 10 milliseconds. And response will be back to programmer in 20 milliseconds. How much time the program takes to get a response back to the programmer, after it is sent?

Ans.
29. The size of a program is N . And the memory occupied by the program is given by $\mathrm{M}=$ square root of 100 N . If the size of the program is increased by $1 \%$ then how much memory now occupied?

Ans.
30. A power unit is there by the bank of the river of 750 meters width. A cable is made from power unit to power a plant opposite to that of the river and 1500 mts away from the power unit. The cost of the cable below water is Rs. 15/- per meter and cost of cable on the bank is Rs.12/- per meter. Find the total of laying the cable.

Ans. Rs. 22,500 (hint: the plant is on the other side of the plant i.e. it is not on the same side as the river)
\{There are two questions, both showing a curve. In the first one, you have to identify the curve. In the second one you have to Write the equation of the curve. In \}

## SECTION II

1. If A can copy 50 pages in 10 hours and $A$ and $B$ together can copy 70 pages in 10 hours, how much time does B takes to copy 26 pages?
a.
b.
c.
d.
2. Match the following:

| 1. Male - Boy | $--->$ | a. | A type of |
| :--- | :---: | :---: | :---: |
| 2. Square - Polygon | $--->$ | b. | A part of |
| 3. Roof - Building | $--->$ | c. | Not a type of |
| 4. Mushroom - Vegetables | $--->$ | d. | A superset of |

Ans: 1- d, 2- a, 3- b, 4- c
3. Match the following.

| 1. brother - sister | $--->$ | a. Part of |
| :--- | :--- | :--- |
| 2. Alsatian - dog | $--->$ | b. Sibling |
| 3. sentence - paragraph | $--->$ | c. Type of |
| 4. car - steering | $-->$ | d. Not a type of |

Ans. 1-b, 2-c, 3-a, 4-d

## Questions 20-24 are based on the following passage:

The office staff of the XYZ corporation presently consists of three bookkeepers (A, B and C) and five secretaries (D, E, F, G and H). Management is planning to open a new office in another city using three secretaries and two bookkeepers of the current staff. To do so they plan to separate certain individuals who do not function well together. The following guidelines were established to set up the new office:
I. Bookkeepers A and C are constantly finding fault with one another and should not be sent as a team to the new office.
II. C and E function well alone but not as a team. They should be separated.
III. D and G have not been on speaking terms for many months. They should not go together.
IV. Since D and F have been competing for promotion, they should not be a team.

Ans.
4. If A is to be moved as one of the bookkeepers, which of the following cannot be a possible working team?
(a) ABDEH
(b) $A B D G H$
(c) ABEFH
(d) ABEGH
(e) ABFGH
5. If C and F are moved to the new office, how many combinations are possible?
(a) 1
(b) 2
(c) 3
(d) 4
(e) 5
6. If C is sent to the new office, which member of the staff cannot go with C ?
(a) B
(b) $D$
(c) F
(d) G
(e) H
7. Under the guidelines developed, which of the following must go to the new office?
(a) $B$
(b) D
(c) E
(d) G
(e) H
8. If D goes to the new office which of the following is (are) true?
I. C cannot go.
II. A cannot go.
III. H must also go.
a. I only.
b. II only.
c. I and II only.
d. I and III only.
e. I, II and III.
9. Two stations A \& B are 110 km apart. One train starts from A at 7 am , and travels towards B at 20 kmph . Another train starts from B at 8 am and travels towards A at 25 kmph . At what time will they meet?
a. 9 am
b. 10 am
c. 11 am
d. 10.30 am
10. If a man can swim downstream at 6 kmph and upstream at 2 kmph , his speed in still water is:
a. 4 kmph
b. 2 kmph
c. 3 kmph
d. 2.5 kmph

Answer the following three questions based on the paragraph:
A student applying at a college should take three courses. There are altogether four courses, namely, Science, Maths, Social Sudies and Economics. (The names may vary, but the pattern is the same)
One can take a Science course onty if he has taken a Maths course.
One can take a Maths course only if he has taken a Science course.
One can take a n Economics course only if he has taken a Social Studies course.
11. Which of the following is a possible course?
a. Two Science courses and a Social Studies Course.
b. Two Maths courses and an Economics course.
c. One Mats course, one Science course and a Social Studies course.
d. One Maths course, one Science course and an Economics course.
12. Which of the following courses a student can take?
I. One Science, one Social Studies, one Economics
II. Two Science, one Social Studies
III. Two Science, one Maths.
a. I only
b. III only
c. I and II only
d. II and III only
13. Which of the following is not a possible course?
a. Two Science courses and a Maths course. b. Two Maths course and a

Science course.
c. One Maths course, one Science course and a Social Studies Course.
d. One Maths course, one Science course and an Economics course.

## SECTION III

1. There are 9 people I, J, K, L, M, N, O, P and Q living in a five storied building. The top floor has only one room and all other floors have two rooms. No rooms are vacant. No rooms carry two people.
\{There are some conditions like the following \}
K and N live on the same floor.
L is living in a floor lower than I.
Q is living in an upper floor than N .
O lives in the third floor.
\{ Four questions are asked based on this paragraph regarding the floor a specific person lives on; some conditions given and to state which one is valid; some condition, based on which to state in which floor a specific person lives etc. \}
