

RAMAKRISHNA MISSION VIDYAMANDIRA

Belur Math, Howrah

Admission Test, 2013 for B.Sc 1st Yr

Date : 15 .06. 13 Computer Science (Honours) Full Marks 60

Time: 11 AM – 12:30 PM

Answer all questions by selecting the correct choice. Each wrong answer will deduct (-1) from the resulted score. Calculator is not allowed. No additional page will be provided for rough work

1. A sheet of paper has statements numbered from 1 to 40. For all values of n from 1 to 40, statement n says: 'Exactly n of the statements on this sheet are false.' Which statements are true and which are false?

- A) The even numbered statements are true and the odd numbered statements are false.
- B) The odd numbered statements are true and the even numbered statements are false.
- C) All the statements are false.
- D) The 39th statement is true and the rest are false.

2. If $P+Q$ means P is the husband of Q ; $P\div Q$ means P is the sister of Q and $P\times Q$ means P is the son of Q . Which of the following shows A is the daughter of B ?

- A) $A\div D\times B$ B) $C\times B\div A$ C) $B+C\times A$ D) $D\times B+C\div A$

3. The average of 5 numbers is 41 and the sum of the 2nd and 3rd number is $3\frac{1}{2}$ times the first number. The sum of the 4th and 5th number is $5\frac{3}{4}$ times the first number. What is the average of the 2nd to 5th numbers?

- A) 48.25 B) 42.25 C) 46.50 D) 46.25

Study the following information carefully and answer the questions 4 to 6

There are eight friends A, B, C, D, E, F, G and H. All of them are sitting around a circular table facing towards the center but not necessarily in the same order. A is second to the right of D, who is third to the left of B. There is only one person sitting between E and B. G is the second to the left of C. There is only one person sitting between F and H and that person is not E. H and B are not immediate neighbors. F is second to the right of A.

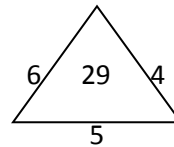
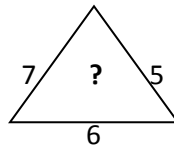
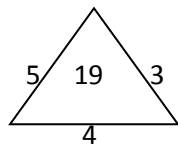
4. Who is sitting between G and B?
A) C B) F C) E D) Data Inadequate.
5. What is the position of C with respect to A?
A) Third to the left B) Third to the right C) Fourth to the left D) Second to the right
6. Who is second to the right of E?
A) A B) D C) B D) None of these
7. Find out the least number by which 825 must be multiplied in order to produce a multiple of 715.
A) 11 B) 5 C) 17 D) 13
8. Somak starts 3 minutes after Suvendu from the same point, for a place at a distance of $4\frac{1}{2}$ miles. Suvendu on reaching his destination immediately returns and after walking a mile meets Somak. If Somak's speed be a mile in 18 minutes, what is Suvendu's speed in miles per minute?
A) $\frac{1}{6}$ B) $\frac{1}{12}$ C) $\frac{2}{15}$ D) $\frac{1}{4}$
9. Some horses and equal number of men were going. Half of the men who were owners of horses were riding on the back of their horses while remaining half were going on foot with their horses. If the total number of feet on the ground is 100, then how many horses are there?
A) 25 B) 20 C) 10 D) 16
10. Find out the next number of the series: 1200, 40, 1000, 50, 750...
A) 75 B) 35 C) 100 D) 55
11. A round table conference is to be held between members of 8 companies. In how many ways can they be seated if members from two companies wish to sit together?
A) 40320 B) 5040 C) 10080 D) None of these
12. The difference between two numbers is 642. When the greater is divided by the smaller, the quotient is 8 and the remainder is 19. The numbers are:
A) 89,731 B) 773, 131 C) 909, 267 D) 228,870

13. What should be there in the box with the ‘?’ mark?

A	7	M	11	H	20
9	H	6	L	4	N
1	G	13	K	8	?

A) S B) D C) X D) T

14. Which one will replace the ‘?’ mark?



A) 41 B) 37 C) 21 D) 47

15. Anish sat with his friends in the Yubabharati Stadium to watch the 100 meter’s race organized by the Asian athletics Association. Five rounds were run. After every round half the teams were eliminated. Finally, one team wins the game. How many teams participated in the race?

A) 28 B) 32 C) 40 D) 42

16. Find the missing number in the series:

0, 6, 24, 60, 120, ?, 336 is

A) 240 B) 220 C) 280 D) 210

17. A group of 7 members having a majority of boys is to be formed out of 6 boys and 4 girls. The number of ways the group can be formed is

A) 80 B) 100 C) 90 D) 110

18. June 10, 1979, was a Sunday. Then May 10, 1972, was a

A) Wednesday B) Thursday C) Tuesday D) Friday

19. In a certain year, the month of January had exactly four Wednesday and four Sundays. Then January 1st of that year was a

A) Monday B) Thursday C) Friday D) Saturday

20. What is the number of leap years in between any 100 consecutive years?

- A) 24 B) 25 C) 26 D) Cann't be determined

Study the following information carefully and answer the questions 21 and 22

A news paper agent deliver the morning papers to 240 families. 90 buy only Times of India. 15 buy Times of India and The Telegraph. 100 buy The Telegraph. 30 buy The Telegraph and The Hindu. 30 buy only The Hindu. No family buys all three papers.

21. How many buy the Times of India?

- A) 120 B) 110 C) 125 D) 150

22. How many people read only one paper?

- A) 165 B) 175 C) 145 D) 195

23. What is the unit digit of $576847 \times 564068 \times 96467 \times 458576$?

- A) 2 B) 4 C) 6 D) 8

24. Four bells toll at intervals of 14, 21 and 42 min respectively. If they toll together at 11:22 a.m., when will they toll together for first time after that?

- A) 11:56 a.m. B) 12:04p.m. C) 12:06p.m. D) 11:48a.m.

25. The number $101^{100} - 1$ is divisible by

1. 10
2. 100
3. 1000
4. 10^n , n is any natural number less than 99

- A) 1, 2, 3 and 4 B) Only 1, 2 and 3 C) Only 1 and 2 D) only 1

26. If nC_4 , nC_5 and nC_6 are in AP, then the value of n can be

- A) 14 B) 11 C) 9 D) 5

27. How many such digits are there in the number 5231698 each of which is as far away from the beginning of the number as when the digits are rearranged in ascending order?

- A) None B) One C) Two D) Three

28. If Ram knows that y is an integer greater than 2 and less than 7 and Hari knows that y is an integer greater than 5 and less than 10, then they may correctly conclude that

- A) y can be exactly determined
- B) y may be either of two values
- C) y may be any of three values
- D) there is no value of y satisfying these conditions

29. Four pipes can fill a reservoir in 15, 20, 30 and 60 hours respectively. The first one was opened at 6 AM, second at 7AM, third at 8 AM and the fourth at 9AM. When will the reservoir be filled ?

A) 11 AM B) 12 Noon C) 1 PM D) 1:30 PM

30. Given that in a code language, '645' means 'day is warm'; '42' means 'warm spring' and '634' means 'spring is sunny'; which digit represents 'sunny' ?

A) 3 B) 2 C) 4 D) 5

(Space for Rough Work)