INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, SRI CITY
ASSESSMENT TEST – 1 – 06 NOVEMBER, 2019
M – 2019 – APTITUDE & REASONING

NAME: **DURATION – 50 MINUTES**

REG. NUMBER **MAX MARKS - 35**

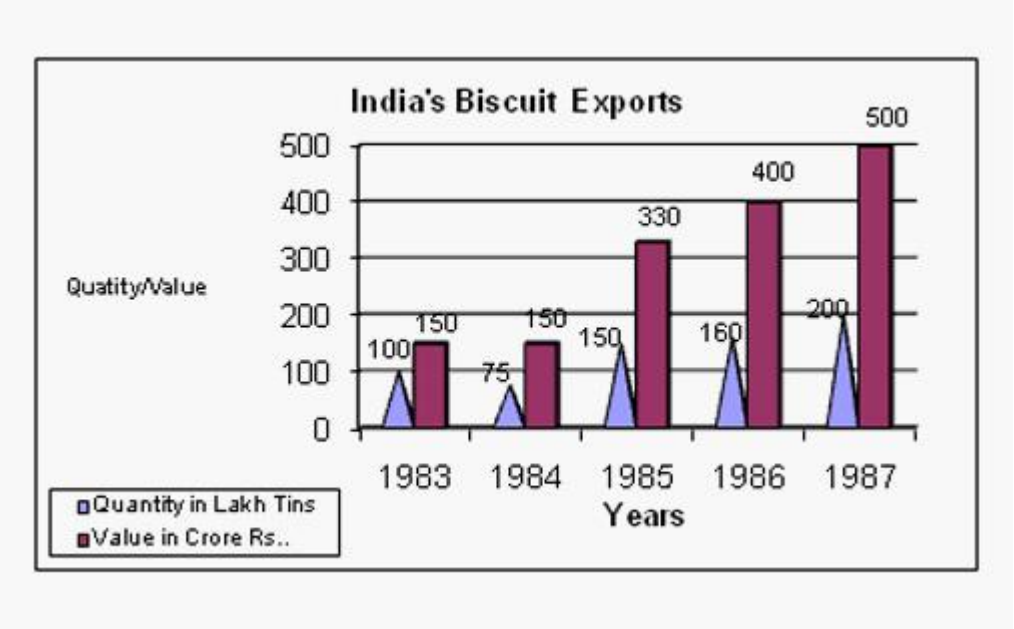
DIRECTIONS -*1 to 3:* The following table gives the data about big 12 software exporters in India from 1997-98 to 1999-2000 (Revenue in Rs. crore).

		1997 – 98	1998 – 99	1999 – 2000
1.	Tata Consultancy Services	955.27	1518.50	1820.35
2.	Wipro	388.94	632.50	1037.30
3.	HCL Technologies	446.53	862.14	908.00
4.	Infosys	250.93	500.25	869.70
5.	Satyam	178.11	376.62	662.93
6.	NIIT	258.38	394.96	551.79
7.	Silverline Technologies	45.32	103.95	434.83
8.	Cognizant	113.16	290.03	414.26
9.	Pentamedia	-	389.02	-
10.	Pentasoft	-	-	353.01
11.	Patni Computers	137.58	219.90	295.51
12.	IBM Global	115.32	227.63	271.14

1. What is the lowest rate of growth of 1998-99 to 1999-2000 for any of the companies given in the chart?
   A. 0% B. 12.7% C. 19.1% D. 10.1% **E. 5.3%**
2. Which of the following statement is true about the share of exports of Tata Consultancy Services in the total exports of the 12 companies?
   A. It has almost doubled in 1999 – 00 over 1997 – 98.
   B. It has been steadily increasing
   C. It is more or less constant.
   D. It has dropped by about 10 %.
   E. None of these.
3. If total software exports in 2000 – 2001 were expected to be Rs 10,000 crore and the growth of Infosys is the same as it was in 1999 – 2000, what would have been Infosys' share of exports of these 12 companies in 2000 – 2001?
   A. 15% B. 19% C. 21% D. 23% E. None of these
4. A train starts from station 'X' at the rate of 80 km/hr and reaches station 'Y' in 48 minutes. If the speed is reduced by 10%, how much more time approximately will the train take to return from station 'Y' to station 'X'?
   a. 3 1/3 minutes b. 4 2/5 minutes **c. 5 1/3 minutes** d. NOTA

5. Harsh and Vijay move towards Hosur starting from IIM, Bangalore, at a speed of 40 km/h and 60 km/h respectively; If Vijay reaches Hosur 200 minutes earlier then Harsh, what is the distance between IIM, Bangalore, and Hosur?
   a. 900 km b. 600 km **c. 400 km** d. 200 km
6. B reaches 10 minutes early travelling at 6 km per hour, whereas A reaches 10 minutes late travelling at 5 km per hour. Find the distance.
   a. 10 km b. 12 km c. 9 km d. 8 km
7. An athlete decides to run the same distance in 1/4th less time that she usually took. By how much percent will she have to increase her average speed?
   a. 33.33% b. 36% c. 50% d. 25%

DIRECTIONS - *4 & 5:* Study the following graph and answer the questions that follow.



8. In which year was the value per tin the minimum?
   A. 1987 B. 1984 C. 1985 D. 1986 **E. 1983**
9. If in 1986 tins were exported at the same rate per tin as in 1985, then what would be the value of exports in 1986? (Crores of Rupees)
   A. 400 B. 420 C. 375 D. 330 **E. 352**
10. A passenger train departs from Ahmedabad at 6pm for Bombay. At 9pm an express train whose average speed exceeds that of the passenger train by 15km/hr leaves Bombay for Ahmedabad. Two trains meet each other mid-route. At what time do they meet given that the distance between the cities is 1080km
    a. 4pm b. 2pm c. 12 midnight **d. 6am**
11. A fort had provision of food for 150 men for 45 days. After 10 days, 25 men left the fort. The number of days for which the remaining food will last, is: **42 days**
12. 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: **8/15**
13. A can lay railway track between two given stations in 16 days and B can do the same job in 12 days, with help of C, they did the job in 4 days only. Then, C alone can do the job in:
    48/5
14. 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?

15 days

15. 4 men and 6 women can complete a work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 10 women complete it? **40 days**
16. Travelling at 80% of his original speed, Akshat reaches school 30 minutes late. How much time does he usually take to travel to school?
    a. 80 minutes b. 100 minutes c. 110 minutes **d. 120 minutes**
17. A train crosses a 50 m long platform in 15 seconds and a porter standing on the platform in 10 seconds. What is the speed of the train?
    a. 13 m/s b. 21 m/s **c. 10 m/s** d. 18 m/s

    A train of length 250 meters travels with a speed of 54 km/ hr. How long does it take to
18. Cross a man jogging in the same direction at a speed of 6 km/hr **18.15 secs**
19. Cross a post box on the platform of length 120 m **16.66 secs**
20. Cross a person sitting in another train of length 220 m travelling in the opposite direction at a speed of 36 km/hr **10 secs**
21. Two persons ride towards each other from two places 55 km apart, one riding at 12 km/hr and the other 10 km per hour. When will they be first 11 km apart? If they continue riding, after how much time will they be again 11 km apart? **1 hour**
22. Sixteen men can complete a work in twelve days. Twenty four children can complete the same work in 18 days. 12 men and 8 children started working and after eight days three more children joined them. How many days will they now take to complete the remaining work?
    a. 6 days **b. 4 days** c. 18 days d. 24 days
23. A can do a certain work in 12 days. B is 60% more efficient than A. How many days does B alone take to do the same job?
    a. 15/4 days **b. 15/2 days** c. 15/7 days d. None of these
24. P, Q and R are three typists who working simultaneously can type 216 pages in 4 hours. In one hour, R can type as many pages more than Q as Q can type more than P. During a period of five hours, R can type as many pages as P can during seven hours. How many pages does each of them type per hour?
    a. 15, 18 & 25 **b. 15, 18 & 21** c. 15, 18 & 30 d. 15, 18 & 15
25. A cistern has two taps which fill it in 12 min and 15 min respectively. There is also a waste pipe in the cistern. When all the three are opened, the empty cistern is full in 20 min. How long will the waste pipe take to empty the full cistern?
    a. 3 b. 4 c. 5 **d. 10**
26. A tap can fill a tank in 6 hours. After half the tank is filled, three more similar taps are opened. What is the total time taken to fill the tank completely?
    a. 4 hrs 30min b. 5 hrs 30min **c. 3 hrs 20min** d. 3 hrs 45 min
27. A water tank is two-fifth full. Pipe A can fill a tank in 10 min. And B can empty it in 6 min. If both pipes are open, how long will it take to empty or fill the tank completely?
    a. 6 min b. 5 min c. 3 min d. 8 min
28. A man rows 10km upstream and back again to the starting point in 55mins. If the speed of the stream is 2km/hr, find the speed of rowing in still water?
    a. 20 **b. 22** c. 25 d. 30
29. A motor boat can travel at 10km/hr in still water. It travelled 91km downstream in a river and then returned, taking altogether 20 hours. Find the rate of flow of river?
    a. 3 km/hr b. 5 km/hr c. 7 km/hr d. CBD
30. A boat takes 4hours for travelling downstream from point A to point B and coming back to point A upstream. If the velocity of the stream is 2kmph and the speed of the boat in still water is 4kmph, what is the distance between A and B?

a. 6 km b. 8 km c. 10 km **d. NOTA**

Directions – 31 – 33 (ANSWERS SAME AS SECTION B)

In each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and

Give answer

- (A) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question
- (B) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question
- (C) If the data in both statements I and II together are necessary to answer the question
- (D) If the data either in statement I alone or in statement II alone are sufficient to answer the question
- (E) If the data given in both statements I and II together are not sufficient to answer the question and

31. The variable C is an integer ls C even?

    Statements:

    (a) C + 6 is even

    (b) C - 5 is odd

32. Is the perimeter of the triangle PQR greater than 10 cm?

    Statements:

    (a) PQ-QR=5cm

    (b) The area of the triangle is 10cm

33. What is the speed of the train whose length is 210 metres?

    Statements:

    (a) The train crosses another train (Howrah Express/12869) of 300 metres length running in opposite direction in 10 seconds.

    (b) The train crosses another train (Howrah Express/12869) running in the same direction at the speed of 60 km/hr in 30 seconds.

34. What is the sum of X & y^2

    Statements:

    (a) x is 70% of K and y is 60% of K

    (b) K = 2

35. How is R related to P

    Statements:

    (a) P is the son of T, who is Q's grandfather

    (b) Q is the daughter of R and sister of S