

**PARUL UNIVERSITY**  
**PARUL INSTITUTE OF COMPUTER APPLICATION**  
**BCA DEPARTMENT**  
Mid Term Examination – October, 2016

Subject Code: 05193201/05393201  
Subject Title: English and Mathematical Aptitude I  
Course: BCA / IMCA Semester III

Date: 24/10/2016  
Time: 10:30 to 12:30  
Total Marks: 50

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- All questions are compulsory to attend.

**SECTION 1 (English)**

**Q-1 Do as Directed**

**(10)**

- Choose the correct option.

1. The committee **is/are** seriously considering the matter.
2. During recession, not even the Mumbai public **has/have** enough money to meet its needs.
3. The public **is/are** dispersing away from the mo not o nous show.
4. The majority **wins/win** what the minority **loses /lose**.
5. The government **has/have** fallen after the trust vote.

- Choose the correct option.

6. He was \_\_\_ leader of the group.  
A. Choose      B. chose      C. chosen
7. I have \_\_\_ my work.  
A. Do            B. did            C. done
8. The letter was \_\_\_ by the clerk.  
A. Write        B. wrote        C. written
9. You have \_\_\_ the window pane.  
A. Break        B. broke        C. broken
10. Who has \_\_\_ my pen?  
A. Take         B. took         C. taken

**Q-2 Read the paragraph and write the answers of the given questions.**

**(07)**

In the 16th century, an age of great marine and terrestrial exploration, Ferdinand Magellan led the first expedition to sail around the world. As a young Portuguese noble, he served the king of Portugal, but he became involved in the quagmire of political intrigue at court and lost the king's favor. After he was dismissed from service by the king of Portugal, he offered to serve the future Emperor Charles V of Spain. A papal decree of 1493 had assigned all land in the New World west of 50 degrees W longitude to Spain and all the land east of that line to Portugal. Magellan offered to prove that the East Indies fell under Spanish authority. On September 20, 1519, Magellan set sail from Spain with five ships. More than a year later, one of these ships was exploring the topography of South America in search of a water route across the continent. This ship sank, but the remaining four ships searched along the southern peninsula of South America. Finally they found the passage they sought near 50 degrees S latitude. Magellan named this passage the Strait of All Saints, but today it is known as the Strait of Magellan.

One ship deserted while in this passage and returned to Spain, so fewer sailors were privileged to gaze at that first panorama of the Pacific Ocean. Those who remained crossed the meridian now known as the International Date Line in the early spring of 1521 after 98 days on the Pacific Ocean. During those long days at sea, many of Magellan's men died of starvation and disease.

Later, Magellan became involved in an insular conflict in the Philippines and was killed in a tribal battle. Only one ship and 17 sailors under the command of the Basque navigator Elcano survived to complete the westward journey to Spain and thus prove once and for all that the world is round, with no precipice at the edge.

1. The 16th century was an age of great \_\_\_\_ exploration.

- A. cosmic    B. land    C. mental    D. common man    E. None of the above

2. Magellan lost the favor of the king of Portugal when he became involved in a political \_\_\_\_.

- A. entanglement    B. discussion    C. negotiation    D. problem    E. None of the above

3. The Pope divided New World lands between Spain and Portugal according to their location on one side or the other of an imaginary geographical line 50 degrees west of Greenwich that extends in a \_\_\_\_ direction.

- A. north and south    B. crosswise    C. easterly    D. south east    E. north and west

4. One of Magellan's ships explored the \_\_\_\_ of South America for a passage across the continent.

- A. coastline    B. mountain range    C. physical features    D. islands    E. None of the above

5. Four of the ships sought a passage along a southern \_\_\_\_.

- A. coast    B. inland    C. body of land with water on three sides    D. border  
E. Answer not available

6. The passage was found near 50 degrees S of \_\_\_\_.

- A. Greenwich    B. The equator    C. Spain    D. Portugal    E. Madrid

7. In the spring of 1521, the ships crossed the \_\_\_\_ now called the International Date Line.

- A. imaginary circle passing through the poles    B. imaginary line parallel to the equator  
C. area    D. land mass    E. Answer not available

Q.3 (A) Find out mistakes and rewrite the given sentences. (04)

1. Isn't that your brother's friend car over there in front of John's house?
2. I think this chocolate mousse would be more nice if you put a bit more sugar in it.
3. My family is composed of four people, my mother, my father, my brother and myself.
4. My mother has to go to the hospital to have an operation on her leg.

Q.3 (B) Give the answers of the questions in brief. (04)

1. Write a brief note on the importance of Reports.
2. Write a brief note on the objectives of Reports.

SECTION 2 (Mathematics)

Q.1 Each Question is of mark 1 mark.

(25)

1. Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.  
A. 4  
C. 9  
B. 7  
D. 13
2. The H.C.F. of two numbers is 23 and the other two factors of their L.C.M. are 13 and 14. The larger of the two numbers is:  
A. 276  
C. 322  
B. 299  
D. 345
3. Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together?  
A. 4  
C. 15  
B. 10  
D. 16
4. The greatest number of four digits which is divisible by 15, 25, 40 and 75 is:  
A. 9000  
C. 9600  
B. 9400  
D. 9800
5. The product of two numbers is 4107. If the H.C.F. of these numbers is 37, then the greater number is:  
A. 101  
C. 111  
B. 107  
D. 185
6. Three numbers are in the ratio of 3 : 4 : 5 and their L.C.M. is 2400. Their H.C.F. is:  
A. 40  
C. 120  
B. 80  
D. 200
7. Find the unit digit of  $(13687)^{3265}$   
a) 7                      b) 3                      c) 6                      d) 8
8. Find the last digit of  $2^{412} \times 4^{428}$   
a) 6                      b) 3                      c) 4                      d) 5
9. Find the unit digit of  $3^{200} \times 4^{500}$   
a) 6                      b) 3                      c) 4                      d) 2
10.  $(?) - 19657 - 33994 = 9999$   
a) 63650                      b) 36350                      c) 65630                      d) 65530
11. If  $a$  and  $b$  are odd numbers, then which of the following is even?  
a)  $a+b$                       b)  $b+a$                       c)  $ab$                       d)  $ba$
12. What is the unit digit in  $(7^{95} - 3^{58})$ ?  
a) 4                      b) 2                      c) 6                      d) 8

13. A batsman scored 110 runs which included 3 boundaries and 8 sixes. What percent of his total score did he make by running between the wickets?

A. 45%

B.  $45\frac{5}{11}\%$

C.  $54\frac{6}{11}\%$

D. 55%

14. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:

A. 39, 30

B. 41, 32

C. 42, 33

D. 43, 34

15. A fruit seller had some apples. He sells 40% apples and still has 420 apples. Originally, he had:

A. 588 apples

B. 600 apples

C. 672 apples

D. 700 apples

16. What percentage of numbers from 1 to 70 have 1 or 9 in the unit's digit?

A. 1

B. 14

C. 20

D. 21

17. Rakesh credits 15% of his salary in his fixed deposit account and spends 30% of the remaining amount on groceries. If the cash in hand is Rs.2380, what is his salary?

A. Rs.3500

B. Rs.4000

C. Rs.4500

D. Rs.5000

18. 56. Three candidates contested an election and received 1136, 7636 and 11628 votes respectively. What percentage of the total votes did the winning candidate get?

A. 57%

B. 60%

C. 65%

D. 90%

19. The population of a town increased from 1,75,000 to 2,62,500 in a decade. The average percent increase of population per year is:

A. 4.37%

B. 5%

C. 6%

D. 8.75%

20. The square of 0.0021 is

a) 0.00441

b) 0.0000441

c) 0.000441

d) 0.00000441

21. The square of 44 is

a) 1936

b) 1196

c) 2236

d) 2336

22. The square of 106 is

a) 12323

b) 1236

c) 11136

d) 11236

23. The square of 9.9 is

a) 98.01

b) 980.1

c) 99.01

d) 99

24. The square of 0.105 is

a) 0.00105

b) 0.0011025

c) 0.011025

d) 0.010025

25. The square of 71 is

a) 0.5041

b) 5041

c) 5071

d) 50.71