

PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
BCA Summer 2017 – 18 Examination

Semester: 4**Subject Code: 05193251****Subject Name: English & Mathematical Aptitude - II****Date: 28/05/2018****Time: 10:30 am to 1:00 pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Answer the followings.**A. Choose the correct answer.****(05)**

1. Choose the word which is different from the rest.
A. Chicken B. Snake C. Swan D. Crocodile
2. Choose the word which is different from the rest.
A. Cap B. Turban C. Helmet D. Veil
3. Choose the word which is different from the rest.
A. Kiwi B. Eagle C. Emu D. Ostrich
4. Choose the word which is different from the rest.
A. Curd B. Butter C. Oil D. Cheese
5. Choose the word which is different from the rest.
A. Potassium B. Silicon C. Zirconium D. Gallium

B. Multiple choice type questions. (Each of 01 mark)**(10)****1. Choose the odd one out.**

- A. OTP B. ABA C. SZX D. UVB

2. Choose the odd one out.

- A. FAA B. OFF C. ATT D. IFF

3. Choose the odd one out.

- A. DW B. HS C. MN D. KO

4. Choose the odd one out.

- A. BYX B. LPO C. EVU D. FUT

5. Choose the odd one out.

- A. AOT B. CPA C. REB D. TIW

6. Choose the pair in which the words are differently related from the rest.

- A. Shirt : Dress B. Boy : Girl C. Mango: Fruit D. Table: Furniture

7. Choose the pair in which the words are differently related from the rest.

- A. Scalpel : Surgeon B. Chisel : Soldier C. Awl : Cobbler D. Knife : Chef

8. Choose the pair in which the words are differently related from the rest.

- A. Tree : Stem B. Face : Eye C. Chair : Sofa D. Plant: Flower

9. Choose the pair in which the words are differently related from the rest.

- A. Book : Page B. Table : Drawer C. Loom : Cloth D. Car : Wheel

10. Choose the pair in which the words are differently related from the rest.

- A. Beans : Pulses B. Rice : Cereals C. Tea : Beverages D. Legumes : Nodules

Q.2 Multiple choice type questions. (2 or 3 Mark Questions.)

1. Pointing to a man in a photograph, a woman said, "His brother's father is the only son of my grandfather." How is the woman related to the man in the photograph? **(02)**

- A. Sister B. Aunt C. Grandmother D. Daughter

2. A told B, "The girl I met yesterday was the youngest daughter of the brother-in-law of my friend's mother." How is the girl related to A's friend? **(02)**

- A. Niece B. Cousin C. Friend D. Daughter

3. A and B are young ones of C. If C is the father of A but B is not the son of C. How are B and C related (02)

- A. Niece and Uncle B. Daughter and Father
C. Niece and Uncle D. Daughter and Mother

4. Poles : Magnet :: ? : Battery (03)

- A. Energy B. Power C. Terminals D. Cells

5. Architect : Building :: Sculptor : ? (03)

- A. Museum B. Statue C. Chisel D. Stone

6. Horse : Mare :: (03)

- A. Fox : Vixen B. Duck : Geese C. Dog : Puppy D. Donkey : Pony

Q.3 Answer the following. (Any three) (15)

1. In an auditorium there are six chairs in the first row. Starting from the second each row contains 11 more chairs than the previous one. If there are total 20 rows then find the total number of chairs in an auditorium.

- a) 2210 b) 2110 c) 3110 d) 3210

2. In a box there are 8 red 7 blue and 6 green balls. One ball is picked up randomly what is the probability that it is neither red nor green.

- a) $\frac{1}{2}$ b) $\frac{1}{4}$ c) $\frac{1}{3}$ d) None of these

3. In how many different ways can the letters of the word "PRAISE" be arranged?

- a) 610 b) 150 c) 720 d) 360

4. The average age of 30 children in a class is 9 years. If the teacher's age be included the average age becomes 10 years. Find the teacher's age.

Q.4 Answer the following.

A. 1. Thirty people participated in a function. Every person shakes hands with every other person. (05)

How many handshakes are exchanged?

- a) 870 b) 435 c) 380 d) 400

2. A box contains 36 tickets numbered 1 to 36, one ticket drawn at random. Find the probability that the number on the ticket either divisible by 3 or is a perfect square.

- a) $\frac{2}{9}$ b) $\frac{4}{9}$ c) $\frac{5}{9}$ d) $\frac{1}{3}$

3. In how many ways can the letter of the word BALLOON be arranged so that two L's do not come together?

- a) 900 b) 1200 c) 800 d) 600

4. How many different necklaces can be formed with 6 white and 5 red beads?

- a) 18 b) 24 c) 21 d) 27

5. A card is drawn at random from a well-shuffled pack of 52 cards. Find the probability of getting a jack or a queen or a king.

- a) $\frac{1}{13}$ b) $\frac{2}{13}$ c) $\frac{4}{13}$ d) $\frac{3}{13}$

B. 1. If a mixture contains water and alcohol in the ratio 2:3, then what is the percentage quantity of water in the mixture? (10)

- a) 10% b) 20% c) 30% d) 40%

2. Two pipes A and B can fill a cistern in 20 minutes and 30 minutes. If both the pipes are opened simultaneously, how long will it take to fill the cistern?

- a) 10 minutes b) 12 minutes c) 14 minutes d) 16 minutes

3. A boat can rowed down a river 40 km in 5hr and up a river 21km in 7 hr. Find the speed of the boat and the river.

- a) 5.5km/hr, 2.5km/hr b) 5km/hr, 2km/hr c) 6km/hr, 3km/hr d) 7km/hr, 3.5km/hr

4. The ratio of two numbers is 5:9. If each number is decreased by 5, the ratio becomes 5:11. Find the numbers.

- a) 13, 12 b) 12, 17 c) 15, 27 d) None of these

5. If 10 persons can complete $\frac{2}{5}$ of a work in 8 days, then find out the number of persons required

to complete the remaining work in 12 days.

- a) 6 days b) 8 days c) 10 days d) 12 days

OR

- B.** 1. A train running at a speed of 120 km/hr crosses a pole in 15 seconds. Find the length of the train in meters. **(10)**
a) 480km/hr b) 490 km/hr c) 500 km/hr d) 120 km/hr
2. Ten years ago, Mohan was thrice as old as Ram was but 10 years hence, he will be only twice as old as Ram. Find Mohan's present age.
a) 60 years b) 80 years c) 70 years d) 76 years
3. A tap can fill a cistern in 8 hours and another can empty it in 16 hours. If both the taps are opened simultaneously, find the time to fill the cistern.
a) 8 hours b) 12 hours c) 14 hours d) 16 hours
4. Two numbers are in the ratio of 4:5. If the difference between these numbers is 24, then find the numbers.
a) 96, 120 b) 89, 123 c) 88, 234 d) 98, 124
5. The speed of a boat in still water is 20 km/hr. If the speed of the stream be 4 km/hr, find out its downstream and upstream speeds.
a) 12, 24km/hr b) 14, 23 km/hr c) 24, 16 km/hr d) 15, 30 km/hr