

**December 2023**  
**BCA- I SEMESTER**  
**Quantitative Reasoning (BCA-23-109)**

Time: 3 Hours

Max. Marks:75

- Instructions:**
1. It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.
  2. Answer any four questions from Part -B in detail.
  3. Different sub-parts of a question are to be attempted adjacent to each other.
  4. Any other specific instructions

**PART -A**

- Q1 (a) Find the sum of prime numbers lying between 60 and 75 . (1.5)
- (b) How many kg of pure salt must be added to 30kg of 2% solution of salt and water to increase it to a 10% solution ? (1.5)
- (c) By selling 33 metres of cloth, one gains the selling price of 11 metres. Find the gain percent. (1.5)
- (d) What is difference between Skimming & Scanning. (1.5)
- (e) Explain theme Detection. (1.5)
- (f) What is difference between Inference & Assumption. Explain with the help of suitable example. (1.5)
- (g) What are the rules to rearrange the jumbled sentences. (1.5)
- (h) In how many ways, a committee of 5 members can be selected from 6 men and 5 ladies, consisting of 3 men and 2 ladies ? (1.5)
- (i) Two unbiased coins are tossed. What is the probability of getting at most one head? (1.5)
- (j) What replaces question mark (?) in the give series : 88,64,24, ? (1.5)

**PART -B**

- Q2 (a) A and B can do a piece of work in 18 days; B and C can do it in 24 days, A and C can do it in 36 days. In how many days will A, B and C finish it, working together and separately? (8)
- (b) The average speed of a train in the onward January journey is 25% more than that in the return journey. The train halts for 1 hour on reaching the destination. The total time taken for the complete to and fro journey is 17 hours, covering a distance of 800 km. What is the speed of the train in the onward journey? (7)
- Q3 (a) Write the meaning and sentences of following words (8)  
Narcissistic , Subsidiary, Restrain, Courage.
- (b) Find two words closest in meaning or with the strongest connection. (7)  
(i) postscript, postponement, potential, deferral, reschedule, shelve  
(ii) duty, responsibility, rights, scribe, writes, toll  
(iii) descend, bear market, recession, plunge, ascend, elevate
- Q4 The following passage has not been edited. There is one error in each line. (15)  
Write the incorrect word and the correct word in the space provided :

When our earth was cover with water, all creatures had to (a)....., ..... swim on it. When the water subsided and land appeared (b)....., ..... the sea creatures crawled out and learn breathing (c)....., ..... and walk on land. When there are not enough plants left to (d)....., ..... eat, they learnt to hunt and kill for the food. Thing are still (e)....., ..... changing and if one want to survive, you will have to change(f)....., ..... too. Look, even Bombay has changed. Fifty years past there (g)....., ..... were hill, gardens, beautiful villas where you now see shops,(h)....., ..... traffic, crowds and slums.

- Q5 (a) A,B,C,D,E, F, G and H are seated in straight line facing North. C sits fourth to left of G. D sits second to right of G. Only two people sit between D and A. B and F are immediate neighbours of each other. B is not an immediate neighbour of A. H is not an immediate neighbour of D. (5)
- (i) Who amongst the following sits exactly in the middle of the persons who sit fifth from the left and the person who sits sixth from the right?  
(ii)How many persons are seated between A and E?
- (b) At sunrise Amit and Deepak are having a conversation standing in front of each other. The shadow of Deepak is formed towards the right hand of the Amit. What direction is Deepak facing? (5)
- (c) B is the father of Q. B has only two children. Q is the brother of R. R is the daughter of P. A is the granddaughter of P and S is the father of A. How is S related to Q? (5)
- Q6 (a) How many number of letters are there between 22nd letter from left and 8th letter from left in the English alphabet? (5)
- (b) Rajneesh, Kavita, Suresh, Gambhir and Mahesh are friends and good players. (5)  
Rajneesh and Kavita are good in hockey and volleyball. Suresh and Rajneesh are good in hockey and tennis. Gambhir and Kavita are good in cricket and volleyball. Suresh, Gambhir and Mahesh are good in football and tennis.
- (i)Who is good in hockey, volleyball and cricket.  
(ii) Who is good in tennis, cricket, volleyball and football ?
- (c) The average weight of A, B,C is 45 kg. If the average weight of A and B be 40kg and that of B and C be 43kg , find the weight of B. (5)
- Q7 Differentiate between the following set of words: (15)
- (i)Born, borne (ii) Hear, Listen (iii) Lay, Lie(iv) Discover, Invent(v) Hope, think.

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