

**BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)**  
**B. Tech. Sem - VI COMPUTER SCIENCE & BUSINESS SYSTEM : WINTER : 2024**  
**SUBJECT: QUANTITATIVE TECHNIQUES COMMUNICATION & VALUES**

Day : Tuesday  
Date : 26/11/2024

**W-24184-2024**

Time : 10:00 AM-01:00 PM  
Max. Marks : 60

**N.B. :**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of non-programmable calculator is **ALLOWED**.
- 4) Assume suitable data, if necessary.

**Q. 1** Solve the following questions:

(10)

- a) The simple interest on a certain sum of money at the rate of 5 % p.a. for 8 years is Rs. 840. At what rate of interest the same amount of interest can be received on same sum after 5 years?
- |         |         |
|---------|---------|
| i) 6 %  | iii) 9% |
| ii) 8 % | iv) 10% |
- b) Find compound interest on 5000 at 16 % per annum for 1 year, compounded half-yearly
- |             |             |
|-------------|-------------|
| i) Rs. 832  | iii) Rs.852 |
| ii) Rs. 840 | iv) Rs.890  |
- c) A car travels first half distance between two places with a speed of 40 km/hr and rest of the half distance with a speed of 60 km/hr. The average speed of the car is : (in km.hr)?
- |        |         |
|--------|---------|
| i) 45  | iii) 48 |
| ii) 50 | iv) 42  |
- d) A man rows 42 km with the stream in 7 hours and 60 km against the stream in 12 hours. What is the speed of the boat in still water?
- |         |          |
|---------|----------|
| i) 6    | iii) 5.5 |
| ii) 5.8 | iv) 5    |
- e) A bag contains 50p, 25p and 10p coins in the ratio 5:9:4, amounting to Rs. 206. Find the number of coins of 25p..
- |         |          |
|---------|----------|
| i) 460  | iii) 160 |
| ii) 200 | iv) 360  |
- f) What will be at the unit place of the answer  $236^{45} \times 459^{4567}$
- |       |        |
|-------|--------|
| i) 4  | iii) 9 |
| ii) 6 | iv) 5  |
- g) A dishonest businessman professes to sell his grain at cost price, but he gives only 900 gm. for a kg. Find the profit %?
- |          |             |
|----------|-------------|
| i) 11 %  | iii) 10 %   |
| ii) 12 % | iv) 11.11 % |

P. T. O.

- h) The average of first five multiples of 7 is:
- |        |         |
|--------|---------|
| i) 42  | iii) 28 |
| ii) 35 | iv) 21  |
- i) If Rs. 76 is divided into four parts proportional to 7, 5, 3, 4 then the smallest part is:
- |        |         |
|--------|---------|
| i) 15  | iii) 16 |
| ii) 12 | iv) 19  |
- j) The marked price on an item was Rs. 2000/- but the shopkeeper offered a double discount of 20 % and 15 %. How much did he finally sell the item for?
- |              |               |
|--------------|---------------|
| i) Rs. 1360  | iii) Rs. 1340 |
| ii) Rs. 1300 | iv) Rs. 1400  |

Q.2 Solve the following questions:

(10)

- a) Pointing to a photograph of a boy Suresh said, "He is the son of the only son of my mother". How is Suresh related to that boy?
- |            |             |
|------------|-------------|
| i) Brother | iii) Cousin |
| ii) Uncle  | iv) Father  |
- b) If  $A + B$  means A is the sister of B;  $A \times B$  means A is the wife of B;  $A \% B$  means A is the father of B and  $A - B$  means A is the brother of B. Which of the following means T is the daughter of P?
- |                               |                                |
|-------------------------------|--------------------------------|
| i) $P \times Q \% R + S - T$  | iii) $P \times Q \% R + T - S$ |
| ii) $P \times Q \% R - T + S$ | iv) $P \times Q \% R + S + T$  |
- c) It was Sunday on Jan 1, 2006. What was the day of the week Jan 1, 2010?
- |              |               |
|--------------|---------------|
| i) Sunday    | iii) Friday   |
| ii) Saturday | iv) Wednesday |
- d) What will be the day of the week 15<sup>th</sup> August, 2010?
- |            |              |
|------------|--------------|
| i) Sunday  | iii) Tuesday |
| ii) Monday | iv) Friday   |
- (e-f) In each of the following questions two statements are given. Which are followed by four conclusions (a) (b) (c) and (d) choose the conclusion which logically follow from the given statements.
- e) **Statements :** All the phones are scales. All the scales are calculators.
- Conclusions :**
- |                                    |                       |
|------------------------------------|-----------------------|
| a) All the calculators are scales. | iii) Only (b) and (d) |
| b) All the phones are calculators. | iv) Only (a) and (b)  |
| c) All the scales are phones.      |                       |
| d) Some calculators are phones.    |                       |
| i) Only (a) and (d)                |                       |
| ii) Only (c) and (d)               |                       |
| v) Only (a) and (c)                |                       |

f) **Statements :** All the goats are tigers. All the tigers are lions.

**Conclusions :**

a) All the goats are lions.

b) All the lions are goats.

c) Some lions are goats.

d) Some tigers are goats.

i) All the four

iii) Only (b) and (d)

ii) Only (a) (b) and (c)

iv) Only (b) (c) and (d)

g) Rasik walked 20 m towards north. Then he turned right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15 m. finally he turns left and walks 15 m. In which direction and how many meters is he from the starting position?

i) 15 m. West

iii) 30 m. West

ii) 30 m. East

iv) 45 m. East

h) Starting from the point X, Jayant walked 15 m towards west. He turned left and walked 20 m. He then turned left and walked 15 m. After this he turned to his right and walked 12 m. How far and in which directions is now Jayant from X?

i) 32 m. South

iii) 42 m. North

ii) 47 m. East

iv) 27 m. South

i) Look at this series : 7, 10, 8, 11, 9, 12, ..... What number should come next?

i) 7

iii) 12

ii) 10

iv) 13

j) Look at this series : 36, 34, 30, 28, 24, ..... What number should come next?

i) 20

iii) 23

ii) 22

iv) 26

**Q.3 a)** Each of the questions given below consist of four sentences on a topic numbered a to d. There may be an error in any one part of the sentence. Read the sentence and identify the part which has the error and write it as the answer. If it has no error mark the answer as e :

i) a) If he worked hard

c) got through the exam

b) he would have

d) which he wrote recently

ii) a) She told me

c) the next day

b) that she will meet me

d) if she had time

iii) a) The students

c) meticulously throughout the year

b) work

d) doesn't they?

- iv) a) He hoped c) but could not able to do so  
b) to top the exam d) because of ill health
- v) a) We have not met them yet c) they lived here  
b) though d) for a year

b) Do as Directed:

(05)

- i) My father was a medical Professional. (Add a question tag)
- ii) They had all become a part and parcel of our existence. (Identify the Tense)
- iii) The magnificent trees constantly attracted squirrels. (Change the voice)
- iv) Shweta is a very cheerful girl. (Make it exclamatory)
- v) Find the opposite word from given of options:  
Radical :
- a) Singular  
b) Unusual  
c) Conservative

Q. 4 Discuss the self-awareness strategies like SWOT and TOWS. How these four strategies do help in personal and professional development? (10)

OR

What is mean by the team building skills? Explain the Bruce Tuchman's Team building model with an example.

Q. 5 What are the different types of non-verbal codes used in communication process? Discuss the importance of these codes for effective presentation skills. (10)

OR

Write a job application letter for the Post Marketing Manager and design a C.V. for the same.

Q. 6 What are the essential features of the corporates etiquettes? Discuss the importance of personal grooming and dressing in the corporate world. (10)

OR

Define the concept CSR. How does the company approach CSR and what types of initiatives are done for sustainability by the company?

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