

**BACHELOR OF TECHNOLOGY (CBCS) (2020 COURSE)**  
**B.Tech.Sem - VI Information Technology : WINTER : 2023**  
**SUBJECT : QUANTITATIVE TECHNIQUES, COMMUNICATION & VALUES**

Day : Thursday

Time : 10:00 AM-01:00 PM

Date : 23-11-2023

**W-24746-2023**

Max. Marks : 60

**N.B.:**

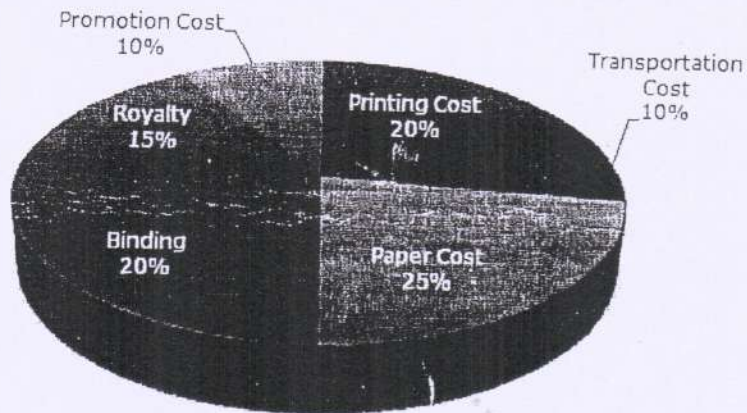
- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Calculator and Any Smart Gadgets are not **ALLOWED**.
- 4) Assume suitable data if necessary.

- Q.1** Solve the following questions: **[10]**
- i) If ₹ 64 amounts to ₹83.20 in 2 years, what will ₹ 86 amount to in 4 years at the same rate percent per annum?  
a) ₹ 114.80      b) ₹124.70      c) ₹127.40      d) ₹ 137.60
  - ii) At what rate of compound interest per annum will sum ₹1200 become ₹1348.32 in 2 years?  
a) 6%      b) 6.5%      c) 7%      d) 7.5%
  - iii) If ₹76 is divided into four parts proportional to 7, 5, 3, 4 then the smallest part is:  
a) 15      b) 12      c) 16      d) 19
  - iv) An amount of ₹735 was divided among A, B and C. If each of them had received ₹ 25 less, their shares would have been in the ratio of 1:3:2. The money received by C was:  
a) ₹ 245      b) ₹ 225      c) ₹ 195      d) ₹ 210
  - v) On selling 17 balls at ₹ 720, there is a loss equal to the cost price of 5 balls. The cost price of a ball is:  
a) ₹ 45      b) ₹ 50      c) ₹ 55      d) ₹ 60
  - vi) Excluding stoppages, the speed of a bus is 54 kmph and including stoppages, it is 45 kmph. For how many minutes does the bus stop per hour?  
a) 9      b) 10      c) 12      d) 20
  - vii) A motorboat, whose speed is 15 km/hr in still water goes 30 km downstream and comes back in a total of 4 hours 30 minutes. The speed of the stream (in km/hr) is:  
a) 4      b) 5      c) 6      d) 10
  - viii) In what ratio must a grocer mix two varieties of pulses costing ₹ 15 and ₹ 20 per kg respectively so as to get a mixture worth ₹ 16.50 kg?  
a) 3:7      b) 5:7      c) 7:3      d) 7:5
  - ix) A bag contains 2 red, 3 green and 2 blue balls. Two balls are drawn at random. What is the probability that none of the balls drawn is blue?  
a) 10/21      b) 11/21      c) 2/7      d) 5/7
  - x) 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:  
a) 8/15      b) 7/15      c) 1/4      d) 1/10

**P.T.O.**

- Q.2 The following pie-chart shows the percentage distribution of the expenditure [10] incurred in publishing a book. Study the pie-chart and the answer the questions based on it.

Various Expenditures (in percentage) Incurred in Publishing a Book



- i) If for a certain quantity of books, the publisher has to pay ₹ 30,600 as printing cost, then what will be amount of royalty to be paid for these books?  
 a) ₹ 19,450    b) ₹ 21,200    c) ₹ 22,950    d) ₹ 26,150
- ii) What is the central angle of the sector corresponding to the expenditure incurred on Royalty?  
 a)  $15^\circ$     b)  $24^\circ$     c)  $48^\circ$     d)  $54^\circ$
- iii) The price of the book is marked 20% above the C.P. If the marked price of the book is ₹ 180, then what is the cost of the paper used in a single copy of the book?  
 a) ₹ 36    b) ₹ 37.50    c) ₹ 42    d) ₹ 44.25
- iv) Pointing to a woman, Abhijit said, "Her granddaughter is the only daughter of my brother". How is the woman related to Abhijit?  
 a) Sister    b) Mother    c) Grandmother    d) Mother-in-law
- v) If  $P + Q$  means  $P$  is the brother of  $Q$ ;  $P \times Q$  means  $P$  is the father of  $Q$  and  $P - Q$  means  $P$  is the sister of  $Q$ , which of the following relations shows that  $I$  is the niece of  $K$ ?  
 a)  $K + Y + Z - I$     b)  $K + Y \times I - Z$     c)  $Z - I \times Y + K$     d)  $K \times Y + I - Z$
- vi) January 1, 2008 is Tuesday. What day of the week lies on Jan 1, 2009?  
 a) Monday    b) Wednesday    c) Thursday    d) Sunday
- vii) OPO, NML, KJI, \_\_\_\_\_, EDC  
 a) HGF    b) CAB    c) JKL    d) GHI
- viii) One morning Udai and Vishal were talking to each other face to face at a crossing. If Vishal's shadow was exactly to the left of Udai, which direction was Udai facing?  
 a) East    b) West    c) North    d) South
- ix) In the following question two statements are given. Which are followed by four conclusions (1), (2), (3) and (4). Choose the conclusions which logically follow from the given statements.  
 Statements: No door is dog. All the dogs are cats.  
 Conclusions : 1) No door is cat    3) Some casts are dogs  
                   2) No cat is door    4) All the cats are dogs  
 a) Only (2) and (4)    d) Only (3)  
 b) Only (1) and (3)    e) All the four  
 c) Only (3) and (4)
- x) 28 25 5 21 18 5 14  
 a) 115    b) 107    c) 118    d) 510    e) 105

...3...

Q.3 A) Each of the question given below consists of four sentences on a topic numbered (i) to (iv). There may be an error in any part of the sentence. Read the sentence and identify the part which has the error and write it as the correct answer. If there is no error, mark the answer as (v). [05]

- 1) i) If he worked hard  
ii) got through the exam  
iii) he would have  
iv) which he wrote recently
- 2) i) She told me  
ii) the next day  
iii) that she will meet me  
iv) if she had time
- 3) i) The students  
ii) meticulously throughout the year  
iii) work  
iv) doesn't they
- 4) i) He hoped  
ii) but could not be able to do so  
iii) to top the exam  
iv) because of ill-health
- 5) i) We have not met them yet  
ii) they lived here  
iii) though  
iv) for a year

B) Do as directed:

[05]

- i) Pick out the word which can replace the word underlined without changing the meaning of the sentence:  
We had to conceal the fact from her due to some reasons.  
a) get      b) keep      c) hide      d) open
  - ii) Choose the word which is most opposite in meaning of the given word comparison.  
a) Separate      b) Different      c) Contrast      d) Opposite
  - iii) Pick out the correct meaning of the following word Credulous:  
a) A person having no sense of sympathy.  
b) One who is inclined to fight.  
c) One who readily believes in others.  
d) One who hates others.
  - iv) Choose the correct word for the following:  
An act of killing one's own family.  
a) Genocide      b) Homicide      c) Patricide      d) Suicide
  - v) Choose the one which can be substituted:  
A short, usually amusing story about some real person or event.  
a) Anecdote      b) Antidote      c) Tale      d) Fiction
- Q.4 a) Define the term SWOT and TOWS. Discuss the advantages and limitation of SWOT analysis. [05]
- b) Explain the terms Soft Skills, Hard Skills and Personal Skills. Write at least five differences between Soft Skills and Hard Skills with a suitable example. [05]

OR

- Q.4 a) Discuss the styles of leadership in details. Give suitable examples. [05]
- b) Explain the Bruce Tuckman's Team Building Model. [05]

P.T.O.

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- Q.5 a) You have to organize an urgent meeting at 9.00 AM tomorrow with the staff from your department. Write an email to the staff by using correct format: [05]
- i) Saying when the meeting will be?
  - ii) Telling them where the meeting will be?
  - iii) Explaining what the meeting will be about?
- b) Presentation skills are the need of today's professional world. How one can make proper structure and flow of a presentation? [05]

OR

- Q.5 a) Write a Job Application Letter for the post of Production Manager with highlighting all the qualities and attributes. [05]
- b) How important is Group Discussion as a part of the selection process? [05]
- Q.6 a) Define the terms Business Ethics and Business Values. Why these are important in Business World? [05]
- b) 'Diversity is useful and necessary in corporate world'. Give five reasons to sustain this statement. [05]

OR

- Q.6 a) Explain the concept of CSR and discuss its importance and need in current scenario. [05]
- b) What is meant by Business etiquettes? Mention at least five business etiquettes. [05]

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