

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2023 ONLY)

23UMS3N1

REG.NO. :

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI**  
**END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2024**  
**UG DEGREE COURSES** **MAXIMUM MARKS: 50**  
**SEMESTER: III** **TIME : 2 HOURS**

**PART - IV**  
**QUANTITATIVE APTITUDE – I**

**SECTION – A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

- Express 13% as a decimal\_\_\_\_\_.  
a) 0.013          b) 13/100          c) 13          d) 100
- Find the value of  ${}^{24}C_{24}$  \_\_\_\_\_.  
a) 4          b) 1          c) 24          d) 120
- The mean proportional between 0.08 and 0.18 is \_\_\_\_\_.  
a) 0.8          b) 27          c) 0.12          d) none
- Loss = \_\_\_\_\_.  
a) S.P          b) S.P - C.P          c) C.P - S.P          d) C.P
- Any subset of a sample space is called an\_\_\_\_\_.  
a) event          b) probability          c) random experiment          d) none

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**(K2)**

- What is the population n ago years if the population of a town be P now and it increases at the rate of R% per annum.
- Find the value of  ${}^7P_2$ .
- Write Sub-Triplicate ratio of (a:b).
- Define gain.
- What is the probability of getting a head in a throw of a coin?

**SECTION – B**

**(5 X 8 = 40 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**

**(K4 & K5)**

- a) i) Sixty-five percent of a number is 21 less than four-fifth of that number. What is the number?  
ii) Difference of two numbers is 1660. If 7.5% of one number is 12.5% of the other number, find the two numbers.

**(OR)**

- b) i) The population of a town is 1,76,400. If it increases at the rate of 5% per annum, what will be its population 2 and 4 years hence? What was it 2 and 4 years ago?  
ii) If a radio is purchased for Rs.490 and sold for Rs.465.50, Find the loss percent.

**(CONTD.....2)**

12.a) Divide Rs.1162 among A, B, C in the ratio 35:28:20.

(OR)

b) A mixture contains alcohol and water in the ratio 4:3. If 5 litres of water is added to the mixture, the ratio becomes 4:5. Find the quantity of alcohol in the given mixture.

13. a) A book was sold for Rs. 27.50 with a profit of 10%. If it were sold for Rs. 25.75, then what would have been the percentage of profit or loss?

(OR)

b) A man buys an article for Rs. 27.50 and sells it for Rs.28.60. Find his Gain%.

14. a) How many words can be formed by using all the letters of the word 'DAUGHTER' so that the vowels always come together?

(OR)

b) How many words can be formed from the letters of the word 'EXTRA', so that the vowels are never together?

15. a) Two Cards are drawn at random from a pack of 52 cards. What is the probability that either both are black or both are queens?

(OR)

b) (i) A bag contains 6 white and 4 black balls. Two balls are drawn at random. Find the probability that they are of same colour.

(ii) Two dice are thrown together. What is the probability that the sum of the numbers on the two faces is divisible by 4 or 6 ?

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