Question Paper Code: 94431A

B.E. / B.Tech. DEGREE EXAMINATION, JUNE 2021

Fourth Semester

Mechanical Engineering

19UGS431 - REASONING AND QUANTITATIVE APTITUDE

(Regulation 2019)

(Common to EEE, Agriculture and Chemical Engineering)

Duration: 1.45 hour   Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

(Answer any TEN of the following questions)

S. no	Question	Mark	CO	BLOOM'S LEVEL	MARKS	% OF MARKS
1	If $0.75 : x :: 5 : 8$, then x is equal to a) 1.20 b) 1.30 c) 2.30 d) 1.02	2	CO1	Understand	02/50	4%
2	The average weight of 16 boys in a class is 50.25 kg and that of the remaining 8 boys is 45.15 kg. Find the average weights of all the boys in the class. a) 48.50 b) 48.55 c)42.80 d) 46.35	2	CO1	Understand	02/50	4%
3	A batsman scored 110 runs which included 3 boundaries and 8 sixes. What percent of his total score did he make by running between the wickets? a) $45\frac{6}{11}$ % b) $45\frac{2}{11}$ % c) $45\frac{3}{11}$ % d) $45\frac{5}{11}$ %	2	CO1	Understand	02/50	4%
4	If 20% of a $= b$, then b% of 20 is the same as a) 10% of a b) 25% of a c) 4% of a d) None of these	2	CO1	Understand	02/50	4%
5	The ratio of boys to girls in a class 5: 3. The class has 16 more boys than girls. How many girls are there in the class?	2	CO1	Understand	02/50	4%

a) 16 b) 6
c) 24 d) 64

#	Question	Marks	CO	Level		
6	The speed of the car is 10 m/s. What is the speed in kmph? a) 25kmph b) 30kmph c) 50kmph d) 36kmph	2	CO1	Understand	02/50	4%
7	A train of length 260 m crosses a bridge of length 40 m in 12 seconds. Find the speed of the train a) 60 kmph b) 25 kmph c) 90 kmph d) 100 kmph	2	CO1	Understand	02/50	4%
8	There are 10 yes or no questions. In how many ways can these be answered? a) 1024 b) 256 c) 100 d) 20	2	CO1	Understand	02/50	4%
9	The number of new words that can be formed by rearranging the letters of the word 'ALIVE' is a) 23 b) 24 c) 119 d) 120	2	CO1	Understand	02/50	4%
10	A is 100 m North east of B. C is 100 m South west of B. Then, C is in which direction of A? a) 200 m South West b)200 m North West c) 100 m West d) 100 m North	2	CO1	Understand	02/50	4%
11	A party consists of grandmother, father, mother, four sons and their wives and one son and two daughters to each of the sons. How many females are there in all? a) 14 b) 17 c) 16 d) 24	2	CO1	Understand	02/50	4%
12	Tree : Forest :: Grass : ? a) Lawn b) Field c) Garden d) Farm	2	CO1	Understand	02/50	4%
13	Find the next series FAG, GAF, HAI, IAH, a) JAK b) HAL c) JAI d) HAK	2	CO1	Understand	02/50	4%

| 14 | If A is the brother of B; B is the sister of C; and C is the father of D, how D is related to A?
 a)Brother   b) Sister <br> c) Nephew   d) cannot be determined | 2 | CO1 | Understand | 02/50 | 4% |
| 15 | Choose the word which is different from the rest.
 a) kiwi   b) eagle <br> c) ostrich   d) emu | 2 | CO1 | Understand | 02/50 | 4% |

PART – B   (3 X 10 = 30 Marks)

(Answer any THREE of the following questions)

S.no	Question	Mark	CO	BLOOM'S LEVEL	MARKS	% OF MARKS
16	(a) The average temperature for Tuesday, Wednesday and Thursday was 42°C. The average temperature for Wednesday, Thursday and Friday was 44°C. If the temperature on Friday be 43°C, what was the Temperature on Tuesday? (b) The average of 5 numbers is 27.If one number is excluded the average becomes 25.The excluded number is?	10	CO1	Apply	10/50	20%
17	Read the following information carefully and answer the questions given below: • In a family, there are six members P, Q, R, S, T and U. • P and Q are married couple, P is the wife. • S is the only daughter of R who is the sister of P. • T is brother of S. • Q is son- in- law of U, whose wife is has died. (a)How is U related to P? (b) How many male members are there in the family?	10	CO1	Apply	10/50	20%

(c) How is P related to T?

18	(a)A and B together can do a work in 4 days. A alone can do it in 12 days. What time B will take to do					
	(b) Three pipes can fill a tank in 6, 10 and 15 hours respectively. If they are opened together, how long does it take to fill the tank?	10	CO1	Apply	10/50	20%
19	(a)In a certain code language, '123' means 'hot filtered coffee'. '356' means 'very hot day' and '589' means 'day and night'. Which digit stands for 'very'?					
	(b) How many 4's are there proceeded by 7 but not followed by 3? 5 9 3 2 1 7 4 2 6 9 7 4 6 1 3 2 8 7 4 1 3 8 3 2 5 6 7 4 3 9 5 8 2 0 1 8 7 4 6 3	10	CO1	Apply	10/50	20%
20	(a)If A + B means A is the brother of B; A - B means A is the sister of B and A x B means A is the father of B. Which of the following means that C is the son of M? (A)M - N x C + F (B)F - C + N x M (C)N + M - F x C (D)M x N - C + F					
	(b)A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting with E who is on the left end of the bench. C is on the second position from the right. A is to the right of B and E. A and C are sitting together. In which position A is sitting ? a. Between B and D b. Between B and C c. Between E and D d. Between C and E	10	CO1	Apply	10/50	20%