Roll No											

PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
MID TERM EXAMINATION - OCT 2023

Semester : Semester VII - 2020
Course Code : CSE2033
Course Name : Sem VII - CSE2033 - Go Programming
Program : CBC/CBD/CDV

Date : 30-OCT-2023
Time : 11:30AM - 1:00PM
Max Marks : 60
Weightage : 30%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS **(5 X 2 = 10M)**

1. Define zero values in GO with example
(CO1) [Knowledge]
2. Write a program to calculate the area of a circle using math package
(CO1) [Knowledge]
3. Write example code for condition only for loop (while style)
(CO1) [Knowledge]
4. Apply Replace function of string package with an example
(CO2) [Knowledge]
5. Write syntax for bufio reader
(CO2) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS **(3 X 10 = 30M)**

6. Illustrate a go program to read a three digit numer and reverse the number without using inbuilt functions.
(Write sample input and Output)
(CO1) [Comprehension]

7. Write a GO program to calculate electricity bill for Metro Electricity Board based on unit consumed (UC) by consumer. The electricity charge is free of cost if UC is less than 200. If UC is between 200 and 300, then each unit costs Rs.10, between 301 to 500, Rs.15 and above 500 units, Rs.25.
Print an electricity Bill with split-up of UC, charges and total amount.
Exmple: If UC is 350, Then total bill be 200*0 +
100*10+
50*15 = Rs.1750 (Write sampe input and output)

(CO1) [Comprehension]

8. Write a go program to read a string, then count vowels in the given string and then store the vowel and its count in a map.
(Write sample input and Output)

(CO2) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION **(1 X 20 = 20M)**

9. a) Write golang program to make a map with covid patient detials from a hospital with patient id and age. Assume data is {1001:21, 1002:35, 1003:12, 1004:64, 1005:17,
1006:59, 1007:43.....}. Then write code to make 2 slices from this map, one contains id of young patients less thant 18 years old and second one consists of id of senior citizens aged above 60. (Write sampe input and output)

b) Write a function with a variadic parameter which accepts an array of numbers and then print all prime numbers from the list. (Write sampe input and output)

(CO2) [Application]