Graphic Era
HILL UNIVERSITY
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University under section 2(f) of UGC Act. 1956

End Term (Odd) Semester Examination December 2024

Roll no...............................

Name of the Course and semester: Bachelor of Computer Applications, III
Name of the Paper: R Programming
Paper Code: TBC 305(2)

Time: 3 hour   Maximum Marks: 100

Note:
- *(i)* All the questions are compulsory.
- *(ii)* Answer any two sub questions from a, b and c in each main question.
- *(iii)* Total marks for each question is 20 (twenty).
- *(iv)* Each sub-question carries 10 marks.

Q1.   **(2X10=20 Marks)**
a. How can you calculating memory requirements for R object? Define all steps?   [CO2]
b. List and define reading and writing data files is R with suitable examples?   [CO2]
c. Explain package in R? Define any two package? Write a code for install and load packages? [CO1]

Q2.   **(2X10=20 Marks)**
a. What is control structure? Explain all with examples?   [CO3]
b. How many types of functions in R? Explain summary functions with examples?   [CO3]
c. Write a code in R for use of function arguments and return values?   [CO3]

Q3.   **(2X10=20 Marks)**
a. If you want to relabelling the column names, which functions is used? Explain relabelling with column
names and also index with examples?   [CO4]
b. Can you convert variable types? Define all types of conversion?   [CO4]
c. How can you visualize the data? Explain different types of plot in R?   [CO4]

Q4.   **(2X10=20 Marks)**
a. Differentiate with bar and histogram plotting with examples?   [CO4]
b. Explain about creating and adding of elements to the list give an example. How to convert list to matrix
in R programming.   [CO2]
c. Write a R program to create a matrix, taking a given vector of numbers as input and define the column
and row names. Display the matrix?   [CO2]

Q5.   **(2X10=20 Marks)**
a. Define all types of model in R with examples?   [CO5]
b. Write R program to demonstrate working with operators(arithmetic,logical,relational, miscellaneous and
,assignment operators).   [CO2]
c. How you can analysis of variance and comparison of model? Explain examples?   [CO5]