**CMS Business School**

**Continuous Assessment Process – 2**

**Subject: Programming with R (19JBBA207)**

**Topic:** Data Management **Date:** 19-02-2020

**Instructions:**

1. Do not write anything on this paper; submit it back to the invigilator
2. You have to submit the R script (.R) file for the activity
3. Inference/Steps for each task should be written in **blue book**
4. Create a folder on the desktop and name it as *yourrollnumber\_R*

**Answer ALL of the following questions**

1. Matrix data structure **(2)**
2. Create a matrix *matA* of size 2X3 and *matB* of size 3X2 using a sequence of numbers 1:6
3. Take transpose of any of the above matrix and bind it with the other matrix
4. Extract only the 1st and 3rd column of *matA*
5. Label the columns of *matB* as “c1” and “c2”
6. Vectors **(2)**
7. Create a character vector called *employee* containing 4 names
8. Create a numeric vector called *salary* containing their salary
9. Create a date vector as *startdate* showing their date of joining (yyyy-mm-dd)
10. Create a factor vector (ordered) called *highqual* showing their highest qualification (UG / PG / PhD)
11. Data Frame **(2)**
12. Combine all the four vectors in the same order into a data frame called *empdata*
13. Add details in respect of an employee by the name newguy who joined work today to *empdata*
14. Export the *empdata* data frame as an .csv file to your working directory. Prevent the extra column getting created. **(2)**
15. Data manipulation **(2)**
16. Reorder the rows in *empdata* to display according to salary
17. Display only those employees whose qualification is “UG”
18. Select a random sample of 2 employees
19. Create a new variable *salincre* which shows increment proposed for each employee as equal to 10% of their current salary