

**DEPARTMENT OF MANAGEMENT
SCHOOL OF MANAGEMENT & BUSINESS STUDIES
JAMIA HAMDARD**

Even Semester Examination (Online) July 2021

BBA/BBAMBA-Integrated [II-Semester] And Backlog

Subject Name: Business Statistics

MM: 75

Subject Code: BBA-F-05/BBA(I)-F-05/BBA-C-05/BBA(I)-C-05

Time: 03Hours

Email Id of the Examiner: management.jamiahamdard@gmail.com

Email Id of the Assistant Superintendent of Exams: bba2ndsemexjulyaugust2021@gmail.com

Email Id of Dean: deanmanagement@jamiahamdard.ac.in

Note:

- Students have to submit the **Scanned hand written solutions** to the Examiner, Assistant Superintendent of Examination and Dean on the email ids as mentioned above.
- Students shall use **ruled white paper & blue ink** to write the solution. Each page must have a **serial number and the signature** of the student.
- An additional $\frac{1}{2}$ an hour will be given to the examinees to scan the answer sheets, convert it into single PDF and upload it on the id's given on the question papers.
- If any two copies are found to be similar then both the copies shall be cancelled. Such students will be considered/ tried for unfair means.
- The attached PDF shall be named as follows –
Roll No- Full Name-Enrollment Number-Course-Semester-Subject Abbreviation (Example: 9334032-Rabia Shaheen-2019-334-032-BBA-IV-MTS) and students shall also mention the same in subject line of the email & his/her answer copy also.
- Answer All Questions, each carry equal marks.

Q1. According to a Human Resources report, a worker in the industrial countries spends on average 419 minutes a day on the job. Suppose the standard deviation of time spent on the job is 27 minutes.

- a. If the distribution of time spent on the job is approximately bell shaped, between what two times would 99.7% of the figures be?
- b. If the shape of the distribution of times is unknown, approximately what percentage of the times would be between 359 and 479 minutes?

Q2. Determine the value of the coefficient of correlation, r , for the following data.

X	158	296	87	110	436
Y	349	510	301	322	550

Q3. Determine the equation of the regression line from the following data:

x	12	21	28	8	20
y	17	15	22	19	24

Q4. Solve the following linear programming problem using graphical method.

Maximize: $Z = 3x + 5y$

$x \leq 4, 2y \leq 12, 3x + 2y \leq 18, x, y \geq 0$

Q5.5. How a "Null Hypothesis" is differentiated from an "Alternative Hypothesis"? Explain the statistical meaning of alpha ' α ', how could you determine the acceptance and rejection of a "Null Hypothesis" on the basis of P-Value? Explain type I and type II errors.