



Department Of CED

Summer-2020

Subject: Applied Mathematics-I

Duration: Minutes

Instructor: Anwar Shamim

Total Marks: 30

Semester: Summer Semester

Note: Attempt all questions. Manage your time properly.

Q.No. (01)

(3+3+4)

Find the Integration of the following.

a.  $\int (x^2 e^x) dx$

b.  $\int (5x^2 + x^{-2} + 15) dx$

c.  $\int (x^3 + x^{-2} + 5) dx$

Q.No. (02)

((3+3+4)

Find the solution of the following.

- If 56% of the homes in a colony have a car. What %age of homes does not have a car?
- There are 1029 students in a school. 504 of them are girls. Find the ratio of boys to the girls.
- Amna scored 46 out of 50 in a math test, 64 out of 75 in a chemistry test and 72 out of 80 in a physics test. In which subject did she perform best?

Q.No. (03)

(3+3+4)

Find the derivatives of the following.

a)  $S = -4t^{-5} + 4/t + 5t + 1/4$

b)  $Y = x^5 + 3x^3 - x^2 + 4$

c)  $T = 6x^{-3} + x^3 + 5x - 2$