

Student ID: _____

NAVRACHANA UNIVERSITY
SLSE, BSc PROGRAME
END SEMESTER EXAMINATION
1ST Year, Semester -2
Academic Year 2016 – 2017

Subject: FOUNDATION COURSE IN MATHEMATICS-II

Course Code: MA117

Date: 11/05/2017

Marks: 40

Time: 10:30AM – 12:30PM

Instructions:

→ Write answers in answer book only.

Q-1: Answer the following questions:

The following table gives the frequency distribution of times(to the nearest hour) that 90 fans spent waiting in line to buy tickets to a rock concert.

Waiting Time (hours)	Frequency
0 to 6	5
7 to 13	27
14 to 20	30
21 to 27	20
28 to 34	8

Answer the following questions from the table: (Each of 1 Mark)

10X1=10

(1) The classes in the table are

(a)6 (b) 5 (c)90

(3)The mid point of third class is

(a) 16.5 (b)17 (c)17.5

(5)Upper limit of the second class is

(a) 12.5 (b)13 (c)13.5

(7)Relative frequency of the second class is

(a) 0.22 (b)0.41 (c)0.30

(9)Highest frequency of given data is

(a) 0.33 (b)5.56 (c)0.30

(2) The class width is

(a)6 (b)7 (c)34

(4) Lower boundary of the second class is

(a)6.5 (b)7 (c)7.5

(6) The sample size is

(a)5 (b)90 (c)11

(8) Relative frequency of the fifth class is

(a)8.89 % (b)22.22% (c)33.33%

(10) Angle of Relative frequency of the 4th class is

(a)79.99° (b)90° (c)108°

Q-2: Answer the following Questions. Any Two (each of 6 marks)

6X2=12

1. The following data give the number of car thefts that occurred in a city during the past 12 days.

6 3 7 11 4 3 8 7 2 6 9 15

Then fill in the blank

(i) Mean is _____

(ii) Median is _____

(iii) Mode is _____

2. The following data set belongs to a population:

5 -7 2 0 -9 1 61 07

Then fill in the blank

(i) Range is _____

(ii) Variance is _____

(iii) Standard deviation is _____

3. Using the frequency distribution table given below prepare a cumulative frequency distribution table in percentage for the number of iPods sold by a company. Also make rough pie chart in answer book.

<i>iPods Sold</i>	<i>f</i>
5-9	3
10-14	6
15-19	8
20-24	8
24-29	5

Q-2 : Answer the following questions: (Any Two)

9X2=18

1. Solve: $\int \frac{2x}{(x+1)(x+3)} dx$

2. Find the area of region bounded by $y = 2x - 1; x = 0; x = 4$.

3. Solve: $\int \frac{1}{(x+1)(x-2)^2} dx$