

Course: M.Tech (A.P.F.E.)

Subject: Advanced Engg.Mathematics

Subject Code: MTAGF-111

Assignment No: 1

Due date of submission: 10.11.2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

- a) Find the value of $\int_0^1 \frac{dx}{1+x^2}$ by Simpson's 1/3rd rule if $h = 0.25$.
- b) Obtain the Fourier Series for the function $f(x) = x^2$, $-\pi < x < \pi$
Hence show that

$$\frac{1}{1^2} + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \dots = \frac{\pi^2}{6}$$

Q.2

- a) State and Prove Weirestrass theorem in finite products.
- b) Solve the equation $e^x - 4x = 0$ by Newton Raphson method.



MONAD UNIVERSITY HAPUR (UP)

Course: M.Tech(APFE)

Subject Name: *Statistics-1*

Subject code: MT-AGF-112

Assignment No: 1

Due date of submission: 10.11.2016

Instruction

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Program me, and Enrolment No. clearly at the top of the page.

Q.1:-

- (a) A more extensive examination of the readership was undertaken after the initiation of a one-year advertising program, designed to increase the readership age range.

Following are the data collected from this more extensive study. Draw the theoretical distribution of the ages of the readers.

Ages	Frequency
20 - 24	26
25 - 29	45
30 - 34	87
35 - 39	30
40 - 44	8
45 - 49	4.

- (b) A bag contains 5 white balls and 7 black balls. Two balls are chosen at random from the bag (without replacement). What is the probability that one is white and the other is black?

Q.2:-

- (a) Jeremy sells a magazine which is produced in order to raise money for homeless people. The probability of making a sale is, independently, 0.09 for each person he approaches. Given that he approaches 40 people, find the probability that he will make 2 or fewer sales.

- (b) An investigator has determined that the correlation between measures of anxiety and depression is +.45. There are 42 people in the sample. What is the proportion of overlap between the two variables?



MONAD UNIVERSITY HAPUR (UP)

Course: M.Tech(APFE)

Subject Name: *Statistics-I*

Subject code: MT-AGF-112

Assignment No: II

Due date of submission: 10.11.2016

Instruction

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Program me, and Enrolment No. clearly at the top of the page.

Q.1.

- (a) If A and B are independent, with $p(A|B) = 1/4$ and $p(A \cap B) = 1/32$, what are $p(A)$ and $p(B)$?
- (b) Eight friends take a picnic to a cricket match. As her contribution to the picnic, Hilda buys eight sandwiches at a supermarket. She selects the sandwiches at random from those on display. The probability that a sandwich is suitable for vegetarians is independently 0.3 for each sandwich. Find the probability that, of the eight sandwiches, the number suitable for vegetarians is 2 or fewer.

Q.2

- (a) One of the responsibilities of John's job in the antique shop is to keep track of the closing price of a certain portrait. His recorded over the past ten weeks are as follows (in dollars): 89 94 99 95 96 95 88 96 96 96. Compute the coefficient of variation.
- (b) Two regular six-sided dice are rolled. What is the probability that the sum is at most four?



MONAD UNIVERSITY HAPUR (UP)

Course: M.Tech(APFE)
Subject Name: FOOD PROCESSING EQUIPMENT AND PLANT DESIGN
Subject code: MT-AGF-114
Assignment No: 1
Due date of submission: 10.11.2016

Instruction

1. Write t
2. he responses to the assignment in your own handwriting.
3. Submit the responses to your HOD within the due date.
4. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Q.1. (a) Describe the drying methods.

(b) Define milling and explain size reduction machinery use in milling.

Q2.

(a) Explain separation based on stickiness properties

(b) Write the difference between the disc grader and indented cylinder separator.



MONAD UNIVERSITY HAPUR (UP)

Course: M.Tech(APFE)
Subject Name: FOOD PROCESSING EQUIPMENT AND PLANT DESIGN
Subject code: MT-AGF-114
Assignment No: II

Due date of submission: 10.11.2016

Instruction

1. Write t
2. he responses to the assignment in your own handwriting.
3. Submit the responses to your HOD within the due date.
4. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Q.1.

- (a) Define agricultural processing and explain history of Indian agricultural processing.
- (b) Explain E.M.C equation.

Q2.

- (a) Define feasibility and how preparation of feasibility report.
- (b) Write the difference between solar drying and mechanical drying.



MONAD UNIVERSITY HAPUR (UP)

Course: M.Tech(APFE)
Subject Name: Fruits And Vegetables Process Engineering
Subject code: MT-AGF-115
Assignment No: I

Due date of submission: 10.11.2016

Instruction

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Q.1. (a) Write importance of post harvest technology of fruit and vegetable.

(b) Define fruit ripening. And explain spoilage of fruit and vegetables.

Q2.

(a) Define preservation. And explain preservation methods of fruit and vegetables.

(b) Explain C.A storage.



MONAD UNIVERSITY HAPUR (UP)

Course: M.Tech(APFE)
Subject Name: Fruits And Vegetables Process Engineering
Subject code: MT-AGF-115
Assignment No: II

Due date of submission: 10.11.2016

Instruction

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Q.1:-

- (a) Define blanching. And explain its methods.
- (b) Define storage. And explain cold storage of fruit and vegetables.

Q.2:-

- (a) Describe commercial canning processing of fruit and vegetables.
- (b) Explain microwave heating with example.