28-01-19 (AN)

Hall Ticket No: | | | | | | | | | | |

Question Paper Code: 14ENG103-M1

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

B.Tech III –I - MOOCS (2014-Batch) (R14) Supplementary End Semester Examinations - Jan 2019

DEVELOPING SOFT SKILLS & PERSONALITY

(Common to ALL)

Time: 3Hrs **Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either A or B only

Q.1(A)	State the characteristics of goal setting in detail.	12M
	OR	
Q.1(B)	Write the significance of Conflict Resolution Skills emphasizing on the Win- Win solution.	12M
Q.2(A)	What are the measures taken to break bad habits?	12M
	OR	
Q.2(B)	Explain the importance of Listening as part of Communication Skills	12M
Q.3(A)	Define Netiquette and explain with examples.	12M
	OR	
Q.3(B)	Explain in detail the various barriers to communication.	12M
Q.4(A)	What are the various types and issues involved in Nonverbal Communication?	12M
	OR	
Q.4(B)	Explain the various aspects of Nonverbal Communication.	12M
Q.5(A)	Describe the various components of Effective Presentation.	12M
	OR	
Q.5(B)	Explain the role of Body Language in an Effective Presentation.	12M

*** END***

28/01/19 (FN) II-II

Hall Ticket No: | | | | | | | | | | | Question Paper Code: 14MAT104 – M1

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

B.Tech - MOOCS (2014-Batch) (R14) Supplementary End Semester Examinations - Jan 2019

PROBABILITY & STATISTICS

(Common to ALL)

Time: 3Hrs **Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either A or B only

Q.1	(i)	What is the probability a leap year will have 53 Sundays	1M
	(ii)	Explain mutually Exclusive events	1M
	(iii)	If E[X]=5 then E[6X+4] = ?	1M
	(iv)	Define Poisson Distribution	1M
	(v)	Find the value of Z_1 such that $P[-Z_1 < Z < Z_1]=0.90$	1M
	(vi)	Find S.D of binomial distribution if n=30 and p = 1/2.	1M
	(vii)	What is an unbiased estimator?	1M
	(viii)	Define covariance between two random variables	1M
	(ix)	Give an example of alternative hypothesis.	1M
	(x)	Define 90 % confidence interval for true population Mean $'\mu'$	1M

Q.2(A) (i) State and prove multiplication rule of probability for two events. 10M

(ii) Two marbles are drawn in succession from a box contains 10 red, 30 white, and 20 blue marbles with replacement being made after each drawing. Find the probability that

(a) Both are white (b) First is red and second is blue.

OR

Q.2(B) For the given discrete probability distribution, find (i) k value (ii) mean (iii) variance (iv) distribution function 10M

X	-3	-2	-1	0	1	2	3
P(X)	K	0.1	K	0.2	2K	0.4	2K

Q.3(A) (i) 20% of items produced by a factory are defective. Find the probability that in a sample of 5 chosen at random (i) one is defective (ii) at most two are defectives. 10M

(ii) In a Poisson distribution $3P(x=4) = P(x=0) + \frac{1}{2}P(x=2)$,

find (i) $P(x \le 2)$ (ii) $P(x > 2)$

OR

Q.3(B) Suppose the weights of 800 male students are normally distributed with mean 140 pounds and standard deviation 10 pounds. Find the number of students whose weights are (i) between 138 and 148 pounds (ii) more than 152 pounds 10M

Q.4(A) For the following bivariate probability distribution find (i) marginal distributions of X and Y (ii) $p(X \le 1, Y = 2)$ (iii) $p(X \le 2, Y < 2)$ 10M

X\Y	0	1	2	3
0	0.840	0.030	0.020	0.010
1	0.060	0.010	0.008	0.002
2	0.010	0.005	0.004	0.001

OR

Q.4(B) The joint probability density function of two dimensional random variable (X,Y) is given by $f(x,y) = \frac{1}{8}(6 - x - y); 0 < x < 2, \quad 2 < y < 4$ 10M

(i) Find the marginal density functions of X and Y

(ii) Find P(x <1 and y < 3)

(iii) Check for independence of X and Y

Q.5(A) A manufacturer claimed that at least 95% of the equipment which he supplied to a factory conformed to specifications. An examination of a sample of 200 pieces of equipment revealed that 180 were faulty. Test the claim at 5% l.o.s. 10M

OR

Q.5(B) The following table gives the classification of 100 workers according to sex and nature of work. Test whether the nature of work is independent of sex of the worker 10M

	Stable	Unstable	Total
Male	40	20	60
Female	10	30	40
Total	50	50	100

Q.6(A) Find the correlation between X and Y for the following data. 10M

X	68	64	75	50	64	80	75	40	55	64
Y	62	58	68	45	81	60	68	48	50	70

OR

Q.6(B) Compute the least square regression equation of Y on X and estimate Y value when X=66. 10M

X	57	58	59	59	60	61	62	64
Y	67	68	65	68	72	72	69	71

*** END***