

The Open University of Sri Lanka
 Foundation Course in Science – Level 02
 Closed Book Test (CBT) 2004/2005
 MAF 2302/MAE 2302 - Applied Mathematics



Duration :- One and Half Hours.

Date :- 06-03-2006

Time:- 1.30 p.m. – 3.00 p.m.

Answer All Questions.

01. Find

(a) $D(e^{2x} + 5\sin 3x)$.

(b) $(D + 3)(\sin 2x)$.

(c) $\frac{1}{D}\{x + \sin x\}$.

02. (a) If A and B are any two event such that $P(A) = \frac{1}{3}$ $P(B) = \frac{2}{9}$ $P(A/B) = \frac{1}{2}$ is the usual notation find

(i) $P(A \cap B)$ (ii) $P(A \cup B)$.

(b) A bag contains five red and six black balls. The balls are removed at random one at a time without replacement. Find the probability that

(i) the first two balls removed one red.

(ii) the second ball removed is red.

03. Random blood glucose levels from a group of first year forty medical students (mmol/litere) are in given table

Interval	Frequency
2.0-2.4	1
2.5-2.9	1
3.0-3.4	6
3.5-3.9	10
4.0-4.4	11
4.5-4.9	8
5.0-5.4	2
5.5-5.9	0
6.0-6.4	1

(a) Sketch the histogram of this frequency distribution.

(b) Find mean of the above data.