**Probability and Statistics (MA-21001)**

**Selected Questions from Books, 9th Edition**

**(printed version)**

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| **Probability and Statistics for Engineers and Scientists, J.L.Devore, 9th edn.** | | | | | | | | | | |
| **Chapter-1** | | | | | | | | | | |
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| **Chapter-2 (**38 Questions**)** | | | | | | | | | | |
| Problem set-2.1  (6 Questions) | | 1,2,3,5,6,9 | | Problem set-2.4  (15 Questions) | | | | 45, 46, 47, 48, 53, 54, 56, 57, 58, 59, 60. 62, 63, 64,69 | | |
| Problem set-2.2  (8 Questions) | | 11, 12, 13, 14, 15, 24, 25, 26 | | Problem set-2.5  (9 Questions) | | | | 70, 71,72, 73, 78, 80, 81, 84, 87 | | |
| **Chapter-3** (52 Questions)  **(Uniform, binomial, geometric, negative binomial, hyper-geometric, Poisson)** | | | | | | | | | | |
| Problem set-3.1  (6 Questions) | 1, 2, 4, 6, 7,10 | | | | Problem set-3.4  (10 Questions) | | | | 46-a,c,; 47-a,d,e,g; 48, 49, 50, 51, 53, 55, 63, 67 | |
| Problem set-3.2  (9 Questions) | 11, 12, 13, 17, 19, 23, 24, 27, 28 | | | | Problem set-3.5  (8 Questions) | | | | 68, 69, 70, 71, 74, 75, 76, 77 | |
| Problem set-3.3  (11 Questions) | 29, 30, 31, 32, 33, 37, 41, 42, 43, 44, 45 | | | | Problem set-3.6  (8 Questions) | | | | 79, 80, 81, 82, 85, 87, 91, 92 | |
| \* Finding mean, variance and std. deviation of uniform, binomial, geometric and poisson  distribution only  \* Finding the mean and variance using moment generating function (MGF)  \*No derivation of mean and variance of hyper-geometric distribution | | | | | | | | | | |
| **Chapter-4 (Continuous uniform, exponential, normal)**  (37 Questions) | | | | | | | | | | |
| Problem set-4.1  (8 Questions) | 1, 2, 3, 4, 5, 6, 8, 10 | | | | Problem set-4.3  (12 Questions) | | | | 28, 29, 30, 31, 32, 34, 35, 51, 53, 54, 55, 57 | |
| Problem set-4.2  (11 Questions) | 11,12,13,15, 19, 20, 21, 22, 23, 24, 25 | | | | Problem set-4.4  (6 Questions) | | | | 59, 60, 61, 62, 63, 70 | |
| \* Finding the density of if pdf of *X* is and *g* is monotonically increasing  \* Finding mean, variance and standard deviation of continuous uniform, exponential and  Normal distribution only  \* Finding the mean and variance using moment generating function (MGF)  \*No derivation of finding of mean and variation uniform distribution using MGF | | | | | | | | | | |
| **Chapter-5**  (13 Questions) | | | | | | | | | | |
| Problem set-5.1  (7 Questions) | 1, 3, 6, 9, 10, 11,12 | | | | | | Problem set-5.3  (3 Questions) | | | 37, 41, 42 |
| Problem set-5.2  (6 Questions) | 22, 27, 28, 33, 35, 36 | | | | | | Problem set-5.5  (6 Questions) | | | 58, 59,60 |
| **Chapter-9** | | | | | | | | | | |
| **Advanced Engineering Mathematics (E. Kreyszig), 10th edn.**  **Chapter-25** | | | | | | | | | | |
| Problem set-25.1 | | | Finding sample mean, sample variance and sample deviation from any data (give your own example) | | | Problem set-25.3 | | | | 1,4,8,11, 20, 21,22 |
| Problem set-25.2 | | | 1,3,9,11 | | | Problem set-25.4 | | | | 4,8 |
| All Examples (from 25.1 to 25.4) | | | | | | | | | | |