

NMIMS Global Access
School for Continuing Education (NGA-SCE)

Course: Business Statistics

Internal Assignment Applicable for September 2017 Examination

Assignment Marks: 30

Instructions:

- *All Questions carry equal marks.*
- *All Questions are compulsory.*
- *All answers to be explained in not more than 1000 words for question 1 and 2 and for question 3 in not more than 500 words for each subsection. Use relevant examples, illustrations as far as possible.*
- *All answers to be written individually. Discussion and group work is not advisable.*
- *Students are free to refer to any books/reference material/website/internet for attempting their assignments, but are not allowed to copy the matter as it is from the source of reference.*
- *Students should write the assignment in their own words. Copying of assignments from other students is not allowed.*
- *Students should follow the following parameter for answering the assignment questions.*

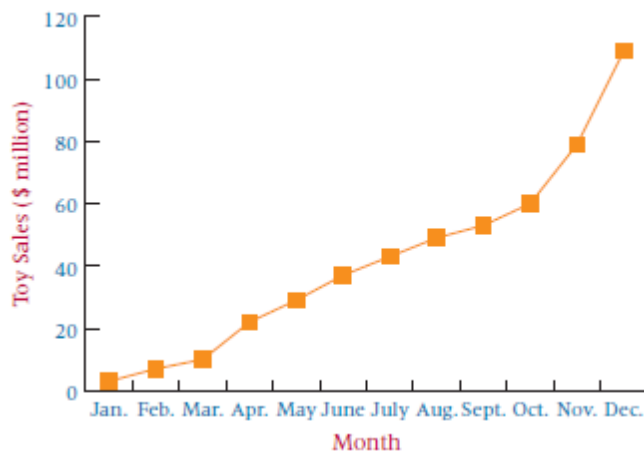
For Theoretical Answer	
Assessment Parameter	Weightage
Introduction	20%
Concepts and Application related to the question	60%
Conclusion	20%

For Numerical Answer	
Assessment Parameter	Weightage
Formula	20%
Procedure / Steps	50%
Correct Answer & Interpretation	30%

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- The above chart shows the sales of toys over a period of one year. Identify the diagrammatic representation used and derive meaningful conclusions about the sales of toys. **(10 Marks)**

- The following table shows the results of a survey conducted across the country, on 200 working professionals. The professionals were asked to identify the location of their company and the type of industry of their company. The professionals were allowed only to select one location and one industry. **(10 Marks)**

Industry	Location				Total
	North	South	East	West	
Banking	24	10	08	14	56
Logistics	30	06	22	12	70
Telecom	28	18	12	16	74
Total	82	34	42	42	200

Suppose a professional is selected at random

- Calculate the probability that the professional is from West
- Calculate the probability that the professional is from Banking
- Calculate the probability that the professional is from Logistics or from North?

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d) Calculate the probability that the professional is from Telecom and South?

3. Titan industries Ltd., India's leading watch manufacturer was established in 1984, as a joint venture between the Tata Group and the Tamil Nadu Industrial Development Corporation. The company brought about a paradigm shift in the Indian watch market, offering quartz technology with international styling. Leveraging its understanding of different segments in the watch market, it launched a second brand, Sonata, as a value brand to those seeking to buy functionally-styled watches at affordable prices. The company diversified into jewellery in 1995 under the brand name Tanishq after taking stock of the huge opportunities and the large size of the jewellery business in India.

Suppose, Titan has launched new jewellery designs under the Tanishq brand for working Indian women. Past record indicates that the mean sale of this brand, from various showrooms located across various towns is Rs. 20 million. If the distribution of the sales is normal with standard deviation of Rs. 50,000

a) What is the probability of obtaining sale greater than Rs. 45 million this year?

(5 Marks)

b) What is the probability of generating sale between Rs. 17 and Rs. 27 million?

(5 Marks)
