PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2017
(Sixth Semester)
Branch - COSTUME DESIGN & FASHION
APPAREL STATISTICS

Time : Three Hours   Maximum ; 75 Marks

SECTION-A120 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (10 x 2 = 20)

1   What are the uses of statistics?

2   Define primary data.

3   What is meant by classification?

4   List out the names of diagrams.

5   What are the merits of arithmetic mean?

6   Define range.

7   Write any two uses of SQC.

8   Give any two situations in which C charts can be used.

9   Define Time series.

10   What are the components of time series?

SECTION - B (25 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Maries (5 x 5 = 25)

11 a   What are the limitations of statistics?
                          OR
   b Explain different methods of collecting primary data.

12 a   Explain different types of classification with examples.
                          OR
   b Draw a bar diagram for the following data:

Year:	2005	2006	2007	2008	2009	2010
Profit (in lakhs) :	43	58	72	65	48	25

13 a What are the properties of good measure of central tendency?
                          OR
   b Calculate range and coefficient of range for the following data:
        75,120,25,80,93,150,110,64.

14 a Explain chance and assignable causes of variations.
                          OR
   b A machine is set to deliver the packets of a given weight. Ten samples of
     size 5 each were examined and the following results were obtained:

Sample No.	1	'2	3 4	5	6	7	8	9	10
Mean .	43	49	57 44	45	37	51	46	43	47
Range	5	.6	5 7	7	4	8	. 6	4	6

     Calculate the valueSj for the central line and control limits for the mean
     chart. Comment of the state of control. (Given for n = 5, d_2 = 2.326)

15 a What are the uses of time series?

OR

b Fit a trend line to the following data by the method of semi-averages:

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Amt	53	79	76	66	69	94	105	87	79	104	94	92	101

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks ($3 \times 10 = 30$)

16   Define secondary data. Explain different sources of secondary data.

17   Draw Histogram and frequency curve for the following data:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of students	5	18	35	50	32	20	5

18   Calculate the mean and standard deviation for the following table giving the age distribution of 542 members.

Age (in years)	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of Members	3	61	132	153	140	51	2

19   The following are the figures of defectives in 22 lot each containing 2,000 rubber belts:

425	430	216	341	225	322	280	306	337	305	356
402	216	264	126	409	193	326	280	389	451	420

Draw control chart for fraction defective and comment on the state of control of the process.

20   Fit a straight line trend by the method of least squares to the following data relating to the sales of a leading departmental store. Assuming that the same rate of change continues, what would be predicted earnings for the year 2006?

Year	1997	1998	1999	2000	2001	2002	2003	2004
Sales (Crores Rs.)	76	80	130	144	138	120	174	190

Z-Z-Z   END