

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BVoc DEGREE EXAMINATION DECEMBER 2025**  
(First Semester)

Branch – **BANKING, STOCK & INSURANCE**

**BUSINESS STATISTICS**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer **ALL** questions  
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Question No.	Question	K Level	CO
1	In a two-dimensional diagram (i) Only height is considered (ii) Only width is considered (iii) Height, width and thickness are considered (iv) Both Height and Width are considered	K1	CO1
2	The other name of cumulative frequency curve is (i) Histogram (ii) Histogram (iii) Ogive (iv) Pie diagram	K2	CO1
3	The root mean square deviation from mean is (i) SD (ii) MD (iii) QD (iv) Range	K1	CO2
4	Find range from the following data 15,22,7,35,48,12,21,40 (i) 20.5 (ii) 41 (iii) 0.41 (iv) 0	K2	CO2
5	The coefficient of correlation: (i) Has no limits (ii) Can be less than 1 (iii) Can be more than 1 (iv) Varies between $\pm 1$	K1	CO3
6	When $b_{xy} = -0.2$ and $b_{yx} = -0.8$ , $r =$ (i) 0.16 (ii) 0.4 (iii) -0.4 (iv) -0.16	K2	CO3
7	Trend of a time series refers to (i) Long term increase only (ii) Long term decrease only (iii) Long term tendency (iv) Short term tendency	K1	CO4
8	Period of a cycle of a time series cannot be (i) 13 Years (ii) 7 Years (iii) 5 Years (iv) 6 Months	K2	CO4
9	MS Excel is a (i) Database Management Software (ii) Workbook Software (iii) Presentation Software (iv) Spreadsheet Software	K1	CO5
10	Which one is not a function in MS excel? (i) PROPER (ii) AVERAGE (iii) COUNT (iv) CLEAR	K2	CO5

**SECTION - B (35 Marks)**

Answer **ALL** questions  
ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Classify the various types of classification of data.	K3	CO1
(OR)			

Cont...

		The monthly profits in rupees of 100 shops are distributed (As follows)										
CO 11.b.	Level I	Profits (Rs.)	0- 100	100- 200	200- 300	300- 400	400- 500	500- 600	K3	CO1		
100	8%	No. of Shops	13	18	27	20	17	6				
		Construct Histogram and also find modal wage.										
12.a.	Classify the merits and demerits of mean, median and mode.											
(OR)												
12.b.	The following data were obtained while observing the life span of a few lights of a company. Analyze the standard deviation and also determine its coefficient of variation.							K4	CO2			
		Life Span (Years)	4- 6	6- 8	8- 10	10- 12	12- 14					
		No. of Neon Lights	10	17	32	21	20					
13.a.	Explain the types of scatter diagram with suitable example.											
(OR)												
13.b.	From the following data, obtain the coefficient of correlation for the ages of husbands and wives.							K4	CO3			
		Age of husband	23	27	28	29	30	31	33	35	36	39
		Age of Wife	18	22	23	24	25	26	28	29	30	32
14.a.	Construct the cost of living index number from the following data:							K3	CO4			
		Item	Base Year price (Rs.)		Current Year Price (Rs.)		Weight					
		Food	39		47		4					
		Fuel	8		12		1					
		Clothing	14		18		3					
		House Rent	12		15		2					
		Miscellaneous	25		30		1					
(OR)												
14.b.	Classify the various components of time series.											
15.a.	Explain the computation procedure to find Range, Quartile and Standard Deviation by using MS Excel.											
(OR)												
15.b.	Explain the computation procedure to find correlation between two variables using MS Excel.									K2	CO5	

**SECTION -C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Question No.	Question	K Level	CO																													
16	Explain the methods of collecting primary and secondary data.	K4	CO1																													
17	Analyze the following data by applying Mean, Median and Mode. <table><tr><td>Class Interval</td><td>40-50</td><td>50-60</td><td>60-70</td><td>70-80</td><td>80-90</td><td>90-100</td><td>100-110</td></tr><tr><td>Frequency</td><td>32</td><td>65</td><td>128</td><td>167</td><td>136</td><td>79</td><td>43</td></tr></table>	Class Interval	40-50	50-60	60-70	70-80	80-90	90-100	100-110	Frequency	32	65	128	167	136	79	43	K4	CO2													
Class Interval	40-50	50-60	60-70	70-80	80-90	90-100	100-110																									
Frequency	32	65	128	167	136	79	43																									
18	From the following data, Obtain two regression equations. <table><tr><td>Marks in Economics</td><td>25</td><td>28</td><td>35</td><td>32</td><td>31</td><td>36</td><td>29</td><td>38</td><td>34</td><td>32</td></tr><tr><td>Marks in Statistics</td><td>43</td><td>46</td><td>49</td><td>41</td><td>36</td><td>32</td><td>31</td><td>30</td><td>33</td><td>39</td></tr></table>	Marks in Economics	25	28	35	32	31	36	29	38	34	32	Marks in Statistics	43	46	49	41	36	32	31	30	33	39	K4	CO3							
Marks in Economics	25	28	35	32	31	36	29	38	34	32																						
Marks in Statistics	43	46	49	41	36	32	31	30	33	39																						
19	Compute index numbers from the following data using (a) Laspeyres (b) Paasches and (c) Fishers methods. <table><tr><td rowspan="2">Commodity</td><td colspan="2">2014</td><td colspan="2">2015</td></tr><tr><td>Quantity</td><td>Price</td><td>Quantity</td><td>Price</td></tr><tr><td>A</td><td>8</td><td>4</td><td>10</td><td>9</td></tr><tr><td>B</td><td>7</td><td>3</td><td>8</td><td>5</td></tr><tr><td>C</td><td>6</td><td>4</td><td>5</td><td>8</td></tr><tr><td>D</td><td>5</td><td>2</td><td>7</td><td>4</td></tr></table>	Commodity	2014		2015		Quantity	Price	Quantity	Price	A	8	4	10	9	B	7	3	8	5	C	6	4	5	8	D	5	2	7	4	K4	CO4
Commodity	2014		2015																													
	Quantity	Price	Quantity	Price																												
A	8	4	10	9																												
B	7	3	8	5																												
C	6	4	5	8																												
D	5	2	7	4																												
20	Explain the procedure of forming regression equations and moving average method using data analysis toolpak in MS Excel.	K4	CO5																													

Z-Z-Z END

