

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) Historogram (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 ± 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. (OR)	K3	CO1

Cont...

	The monthly profits in rupees of 100 shops are distributed as follows		
11.b	Profits (Rs.)	0-100 100-200 200-300 300-400 400-500 500-600	K3 CO1
100	No. of Shops	13 18 27 20 17 6	K3 CO1
	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)		
100	From the following data, obtain the coefficient of correlation for the ages of husbands and wives.	K4 CO3	
13.b.	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	
	Construct the cost of living index number from the following data:		
14.a.	Item	Base Year price (Rs.)	Current Year Price (Rs.)
	Food	39	47
	Fuel	8	12
	Clothing	14	18
	House Rent	12	15
	Miscellaneous	25	30
	(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

 $(3 \times 10 = 30)$

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 border="1" data-bbox="337 677 1180 816"> <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													
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18	From the following data, Obtain two regression equations. <table border="1" data-bbox="311 853 1212 940"> <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							
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19	Compute index numbers from the following data using (a) Laspeyres (b) Paasches and (c) Fishers methods. <table border="1" data-bbox="418 1037 1115 1289"> <thead> <tr> <th rowspan="2">Commodity</th> <th colspan="2">2014</th> <th colspan="2">2015</th> </tr> <tr> <th>Quantity</th> <th>Price</th> <th>Quantity</th> <th>Price</th> </tr> </thead> <tbody> <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> </tbody> </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
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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

