

**M.com (Semester II) Examination April 2019**  
**COC214 Research Methodology**

**Duration: 3 Hours**

**Max. Marks 60**

**Instructions:-**

- i) This paper consists **Nine Questions** Carrying **equal marks**.
- ii) Question No.1 consists of **5 compulsory** questions of **2 marks** each.
- iii) Answer **any 5** questions from question 2,3,4,5,6,7,8 and 9.
- iv) Each question carries **10 Marks**. Figures to the **right** indicate marks.

Q.No	Question	Marks																						
1	<p>a) Define Univariate statistical Analysis.</p> <p>b) Define Dependent Variable and Independent Variable</p> <p>c) Distinguish between Deduction and Induction research</p> <p>d) What do you mean by Unrestricted sampling</p> <p>e) What do you understand by research gap in research?</p>	5 x2=10																						
2	Explain in detail the steps in social-science research process. Also explain the importance of research question in the research.	10																						
3.	What is the difference between a sample and a census, and why is sampling so important for researcher?	10																						
4a.	What are the major sources of gathering the secondary data? Explain your answer in the light of classification of secondary data.	05																						
4.b	What do you understand by hypothesis testing ?	05																						
5.a	What is Ethics in Research & Why is it Important?	05																						
5.b	What is survey method of data collection and when it is used in research?	05																						
6	<p>In the frequency distribution of 100 families given below, the number of families corresponding to expenditure groups 20-40 and 60-80 are missing from the table. However, the median is known to be 50. Find the missing frequencies. And also calculate the mean.</p> <table><tr><td>Expenditure :</td><td>0-20</td><td>20-40</td><td>40-60</td><td>60-80</td><td>80-100</td></tr><tr><td>No of families :</td><td>14</td><td>?</td><td>27</td><td>?</td><td>15</td></tr></table>	Expenditure :	0-20	20-40	40-60	60-80	80-100	No of families :	14	?	27	?	15	10										
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No of families :	14	?	27	?	15																			
7.	<p>Compute Karl Pearson's coefficient of correlation between X and Y from the following observations.</p> <table><tr><td>X</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>Y</td><td>1</td><td>4</td><td>9</td><td>16</td><td>25</td><td>36</td></tr></table> <p>Is the correlation coefficient equal to unity? If not, why not?</p>	X	1	2	3	4	5	6	Y	1	4	9	16	25	36	(10)								
X	1	2	3	4	5	6																		
Y	1	4	9	16	25	36																		
8.	<p>From the following data, obtain the two regression equations:</p> <table><tr><td>English</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><tr><td>Hindi</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></table>	English	43	46	49	41	36	32	31	30	33	39	Hindi	25	28	35	32	31	36	29	38	34	32	10
English	43	46	49	41	36	32	31	30	33	39														
Hindi	25	28	35	32	31	36	29	38	34	32														
9	<p>Fit the linear trend to the following data by the least squares method. Verify that <math>\sum(y-y_e)=0</math>, where <math>y_e</math> is the corresponding trend value of y</p> <table><tr><td>Year</td><td>1990</td><td>1992</td><td>1994</td><td>1996</td><td>1998</td></tr><tr><td>Production (in'000'units)</td><td>18</td><td>21</td><td>23</td><td>27</td><td>16</td></tr></table> <p>Also estimate the production for the year 1999.</p>	Year	1990	1992	1994	1996	1998	Production (in'000'units)	18	21	23	27	16	10										
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