Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2023

Course: Quantitative Techniques and research Methodology **Semester: IV**
Program: B.A. Public Policy and Administration **Time : 03 hrs.**
Course Code: BAPP 2007 **Max. Marks: 100**

Instructions:

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO
Q 1	**1.** A sociologist chose 300 students at random from each of the two school and asked each student how many sibling he or she has. The results are shown in the table below: **Number of Siblings** / **St. Joshep School** 0 / 120 1 / 80 2 / 60 3 / 30 4 / 10 There are total 2400 students at St. Joshep School and 3300 students at St. Xavier's School. What is the median number of siblings for all the students surveyed? a. 0 b. 1 c. 2 d. 3 e. 4	**2**	**CO1**
Q 2	The arithmetic mean of 6, 19 and x is 19. Find the value of x. a. 19 b. 25 c. 31 d. 32 e. 37	**2**	**CO1**

Q 3	10, 18, 4, 15, 3, 21, x If x is the median of 7 numbers listed above, which of the following could be value of x? a. 4 b. 5 c. 8 d. 9 e. 14	**2**	**CO1**
Q 4	Determine the median and modal values for the set: [73.8, 126.4, 40.7, 141.7, 28.5, 237.4, 157.9]	**2**	**CO1**
Q 5	21 bricks have a mean mass of 24.2 kg, and 29 similar bricks have a mass of 23.6 kg. Determine the mean mass of the 50 bricks.	**2**	**CO1**
Q 6	The frequency distribution given below refers to the heights in centimetres of 100 people. Determine the mean value of the distribution, correct to the nearest millimetre. 150–156 5, 157–163 18, 164–170 20 171–177 27, 178–184 22, 185–191 8	**2**	**CO1**
Q 7	Determine the mean, median and modal values for the following set: [4.72, 4.71, 4.74, 4.73, 4.72, 4.71, 4.73, 4.72]	**2**	**CO1**
Q 8	Which one of the following is the most comprehensive source of population data? a. Census b. National Sample Surveys c. Demographic health Surveys d. National Family Heath Surveys	**2**	**CO1**
Q 9	Field work based research is classified as	**2**	**CO1**

	a. Historical b. Empirical c. Biographical d. Experimental		
Q 10	Identify the personal data---------- A. Marital status B. Geographical characteristics C. Occupation pattern D. District	**2**	**CO1**
SECTION B **4Qx5M= 20 Marks**			
Q 11	Discuss the limitations of convenience sampling.	**5**	**CO2**
Q 12	Distinguish between participant observation and Non-Participant observation.	**5**	**CO2**
Q 13	Differentiate between References and Bibliography.	**5**	**CO2**
Q 14	Write a short note on Pilot Study.	**5**	**CO2**
SECTION-C **3Qx10M=30 Marks**			
Q 15	Explain the difference between probability and non-probability sampling methods. What are the advantages and disadvantages of each, and how can researchers select the most appropriate sampling method for their study? Provide examples of studies that used each type of sampling.	**10**	**CO3**
Q 16	Describe the various methods of data collection used in qualitative research. What are the challenges and limitations of each method, and how can researchers address these challenges? Provide examples of studies that used each method.	**10**	**CO3**
Q 17	Discuss the concept of reliability in research.How can researchers ensure that their studies are reliable? Provide examples of studies where reliability was compromised and discuss the consequences of this.	**10**	**CO3**

	OR Describe the steps involved in the research process. What challenges might researchers face at each stage?		
SECTION-D **2Qx15M= 30 Marks**			
Q 18	Explain the difference between primary and secondary data in research. What are the advantages and disadvantages of each type of data, and how can researchers select the most appropriate type of data for their study? Provide examples of studies that used each type of data.	**15**	**CO4**
Q 19	Discuss the importance of ethical considerations in research. What are some of the ethical issues that researchers may encounter, and how can they address these issues in their study design and implementation? Provide examples of studies where ethical issues were raised and discuss the consequences of these issues. **OR** In 2004 P&G launched a scent "player" that looked like a CD player and emitted scents (contained on $5.99 discs with names like "Relaxing in the Hammock") every 30 minutes. The company hired the singer Shania Twain for its launch commercials. This confused the consumers, many of whom thought the device involved both music and scents, and the ambiguity caused Scent Stories to fail. When a product is truly revolutionary, celebrity spokesperson may do more harm than good. A strong educational campaign may be a better way to go. The products features provide the message to build a brand voice, aided by research and development terms, outside experts, and consumers whove tested and love the product. What kind of research can be conducted to make the product sell like a hot cake? What better could have been done in the above case to avoid such failures?	**15**	**CO4**