Total	No. o	of Questions : 4]	SEAT No.:	
PA-	1000	05	[Total N	o. of Pages : 2
		[C0007 2C1		- C
	~ -	[6008]-261	<b>a</b>	
	S.I	E. (Artificial Intelligence & Dat	a Science)(Ins	sem)
		STATISTICS		
		(2019 Pattern) (Semester -	II) (217528)	
Time	:1 H	lour]	[Ma	x. Marks : 30
Instr	uctio	ns to the candidates:		•
	<i>1</i> )	Answer Q1 or Q2, Q3 or Q4.		
	<i>2</i> )	Figures to the right indicate full marks.	28	
	<i>3</i> )	Near diagrams must be drawn wherever ne	ecessary.	
	<i>4</i> )	Make suitable assumption whenever neces	sary.	
		· 9.7		
01)	۵)	What are the limitations and import	of Captistics	[ <i>E</i> ]
Q1)	a) (	What are the limitations and importance	of statistics.	[5]
	b) *	What are the methods of estimation? Give	brief on testing o	of hypothesis. [5]
	c)	Explain the Scope of Statistics in engineer	ering & Technolog	gy. <b>[5]</b>
		OR		
<i>Q2</i> )	a)	What is population and sample? Explain	the type of sampli	- ( )
		6.1		[5]
	b)	What are random sample? Explain lottery	y method and rand	lom numbers
		in detail.		<b>گ</b> [5]
	c)	What is Statistics? Explain the scope of sta	tistics in medical a	nd biological
		fields.		[5]

Q3) a) Draw a frequency polygon for the following data.

Marks	0-20	20-40 40-60	60-80	80-100
No. of students	2	18 42	28	5

Also state the advantages of graphical representation of data (any four).

*P.T.O.* 

[5]

Calculate the mean for the following frequency distribution. b)

Class	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	12	18 2	27	20	17	6

Also state merits of Mean (any four).

Age distribution of hundred life insurance policy holders is as follows: c)

[5]

[5]

Age	17-19	20-22	23-25	26-28	29-31	32-34	35-37	38-40
Number	3	16	12	26	14	12	6	5

Calculate mode

OR

What is histogram? Draw the histogram for the following data. **Q4**) a)

[5]

Age group	0-20	21-40	41-60 61-80	81-100	101-120
(in years)					
Population	500	2100	2200 2000	1600	400

Calculate median for the following distribution. b)

[5]

Class	0-10 10 20	20-30	30-40	40-50
Frequency	5 14	29	21	25

Also write merits of median (any 2).

What are the merits and demerits of Harmonic mean (2 each). Also c) calculate Harmonic mean of the following series. **[5]** 

Values	2	6	10	14	18
Frequency	4	12	20	9	-35
9		*	*	*	6.50
61			2	9.7	





