EDN/V/CC/05R

Student's Copy

2024

(CBCS)

(5th Semester)

EDUCATION

FIFTH PAPER

(Introduction to Research Methodology and Statistics in Education)

(Revised)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

Use of simple calculator is allowed

(SECTION : A-OBJECTIVE)

(Marks: 10)

Tick (1) the correct answer in the brackets provided :

 $1 \times 10 = 10$

- 1. A research undertaken to solve classroom problems is called
 - (a) applied research ()
 - (b) action research ()
 - (c) fundamental research ()
 - (d) basic research ()

- Ņ The main criterion of good research problem is
- <u>a</u> it should be new or novel
- 9 it should have a big sample
- <u></u> it should use only hi-fi tools
- (d it should be of universal interest only
- ω The best sampling method for sampling a population for case study is
- æ area sampling
- 9 systematic sampling
- <u>(</u>) purposive sampling
- (d quota sampling
- 4 The purpose of sampling is
- (a) to complete the research project in time
- 9 study 5 obtain the best representation of the $\overline{}$ whole population under
- <u>(</u> to obtain data even from inaccessible population
- (d
- to collect the exact statistical data

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Ś Α natural setting is called technique for collecting data where a researcher examines people in .

- a questionnaire
- ઉ aptitude test
- 0 observation
- (d) psychological test
- ò What do intelligence tests try to find out?
- â General ability
- Ø Specific ability
- 6 Creative ability
- (d) Physical ability
- Frequency distribution is for
- (a) determining the range of scores
- 6 determining the deviation of scores
- 0 counting the number of scores
- (d)
- grouping the number of scores

Contd

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8. The simplest but most useful method of central tendency is applied tool A

(d)	(c)	(b)	(a)
range	mean	mode	median
-	(-	-
_	-	_	_

9 When we need the most reliable measure of variability, we compute

		-
C)	6	a)
quartile deviation	standard deviation	average deviation
-	-	-
-	<u> </u>	-

10. When the directions, there is effect of one variable affects the other variable in different

(d

correlation

(a) negative correlation ()

(b) positive correlation

(c) zero correlation

(d) linear correlation

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(<i>Marks</i> : 15)	
rite briefly on the following :	3×5=15
UNITI	
l. Concept of basic research	
OR	
. Concept of hypothesis	
UNIT—II	
. Cluster sampling	
OR	
. Purposive sampling	
UNITIII	
. Meaning of achievement test	
OR Meaning of aptitude test	
UNIT—IV	
Meaning and importance of Statistics	
OR	
Concept of measures of central tendency	
UNITV	
Product moment method	
OR	
Linear correlation	

(SECTION : B-SHORT ANSWERS)

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SECTION : C-DESCRIPTIVE)

(Marks : 50)

Answer the following :

UNIT-

10

۲ What is educational research? What are the needs of educational research

ώ

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Ņ What is research report. research report? Describe the general format of writing 5 ώ

UNIT-╘

ω What is sampling? What are the needs and importance of sampling? ω

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- 4
- What is probability sampling? What are the principles of sampling?

 $_{+}^{\omega}$

- Ś Explain observation

UNIT-╘

and disadvantages. as a tool of data collection. Mention its advantages

÷

Explain interview as a tool of data collection.

OR

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and disadvantages of interview technique?

What are the advantages ÷

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istribution of scores/grouped data : befine median and mention its uses. Compute median from the following 4+6=10

	2	2	3	3	4	4	5	5	S	distanti of second of a
	0-24	5-29	0-34	5-39	0-44	5-49	0-54	5-59	cores	
M 60	2	7	10	15	18	00	ы	S	۶	

N = 68

OR

istribution of scores/grouped data : efine mode and mention its uses. Compute mode from the following 4+6=10

	50-51	52-53	54-55	56-57	58-59	60-61	62-63	64-65	66-67	68-69	70-71	Scores	
N = 36	1	ы	2	1	сл	7	6	4	з	2	2	f	

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1	r-
i	1
	z
-	-
_	_

4+6=10 9. What are the uses of standard deviation? Compute standard deviation from the following set of scores :

ſ	1	ю	80	5	7	4	2	N = 30
Scores	90-93	86-89	82-85	74-77	70-73	69-99	62-65	

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00

3+7=10Calculate the coefficient of correlation by rank order from the following What is the rank difference method of coefficient of data and interpret your result : 9

Marks in English	110116110 11	75	60	12	! =	38	25	15
Marks in Hindi	30	40	50	20	10	45	22	18
Individuals	Α	В	U	D	म	£4	G	Н

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	Full Marks : 75
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The figures in t	the margin indicate full marks for the questions
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	(SECTION : A-OBJECTIVE)
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Tick (\checkmark) the correct answer	in the brackets provided :
1. A research undertake	in to solve classroom problems is called
(a) applied research	
(b) action research	()
(c) fundamental rese	arch ()
(d) basic research	()

178

-

Contd.

The main criterion of good research problem is R

- (a) it should be new or novel (
- (b) it should have a big sample
- (c) it should use only hi-fi tools
- it should be of universal interest only (q)
- The best sampling method for sampling a population for case study is ė
- (a) area sampling (
- (b) systematic sampling (
- (c) purposive sampling (
- *(d)* quota sampling (
- 4. The purpose of sampling is
- to complete the research project in time (a)
- under best representation of the whole population obtain the study 9 (q)
- to obtain data even from inaccessible population 0
- to collect the exact statistical data (q)

/78

[Contd.

Contd.

- 5. A technique for collecting data where a researcher examines people in natural setting is called
- (a) questionnaire (
- (b) aptitude test (
- (c) observation (
- (d) psychological test
- 6. What do intelligence tests try to find out?
- (a) General ability (
- (b) Specific ability (
- (c) Creative ability (
- (d) Physical ability (
- 7. Frequency distribution is for
- determining the range of scores (a)
- determining the deviation of scores (q)
- (c) counting the number of scores (
- (d) grouping the number of scores (

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l tende					iability					ner var
centra					of var					the otl
hod of					neasure					affects
met					ole r	-	-			ole
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sim	med	pom	mea	rang	Ř	aver	stan	Juar	SOLIC	n th tion
The	(a)	[(q	(c)]	(q) 1	When	a)	s (q	() ()	<i>d</i>) c	Vher irect
en i	-		-	-		-	0	C	C.	2 P

- 10.
- (a) negative correlation
- (b) positive correlation
- zero correlation (c)
- (d) linear correlation

178

[Contd.

(SECTION : B-SHORT ANSWERS)

(Marks : 15)

3×5=15

Write briefly on the following :

UNIT--I

1. Concept of basic research

OR

2. Concept of hypothesis

UNIT--II

3. Cluster sampling

OR

4. Purposive sampling

UNIT--III

5. Meaning of achievement test

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6. Meaning of aptitude test

UNIT-IV

7. Meaning and importance of Statistics

OR

8. Concept of measures of central tendency

UNIT-V

9. Product moment method

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10. Linear correlation

Contd.

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й н с с 4 Ц	(SECTION : C-DESCRIPTIVE) (Marks : 50) swer the following : UNITI . What is educational research? What are the needs of educational research? What is research report? Describe the general format of writing research report. UNITII . What is research report? Describe the general format of writing research report. UNITII . What is sampling? What are the needs and importance of sampling? OR . What is probability sampling? What are the principles of sampling? UNITIII	10×5=5 3+7=1(3+7=10 3+7=10 3+7=10 3+7=10
ý	OR Exulain interview as a tool of data collection wheet as a	,
;	and disadvantages of interview technique?	es +7=10

[Contd.

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4+6=107. Define median and mention its uses. Compute median from the following distribution of scores/grouped data :

	f	5	в	80	18	15	10	7	6	N = 68
. man node	Scores	55-59	50-54	45-49	40-44	35-39	30-34	25-29	20-24	

0R

4+6=10Compute mode from the following distribution of scores/grouped data : 8. Define mode and mention its uses.

ſ	3	3	з	4	9	7	S	1	6	С	1	N = 36
Scores	70-71	68-69	66-67	64-65	62-63	60-61	58-59	56-57	54-55	52-53	50-51	

Contd.

00						0.			.*									~	-				
	lard deviation 4+6=10											correlation? the following 8 3+7=10	24										G25-1130
UnitV	on? Compute stand	ſ	1	3	8	ŝ	7	4	2	N = 30	() A	l of coefficient of y rank order from	Marks in English	55	75	60	12	11	38	25	15		
	of standard deviations to f scores :	Scores	60-03	86-89	82-85	74-77	70-73	66-69	62-65		OR	difference method ient of correlation l our result :	Marks in Hindi	30	40	50	20	10	45	22	18	* * *	8
	What are the uses of from the following se											What is the rank Calculate the coeffic data and interpret y	Individuals	Α	В	C	D	Е	F	G	Н		
	6											10.				×,							178