

2000

EDUCATION

Full Marks - 100

Pass Marks – 33

Time : Three Hours

The figures in the margin indicate full marks for the question

Attempt all questions

GROUP-A

1. Give any *eight (8)* differences between sensation and perception.

8

2. Write any *four* important characteristics of an infant child. 2x4=8

3. Give *four* means through which you can attract the attention of the students while teaching the students of a junior class.

2x4=8

4. Answer the following questions in not more than 50 words.

Each question carries 4marks only:

4x4=16

- (i) Why is Educational Psychology a means and not an end in education ?
- (ii) If a student of yours requires repeated learning, what law of learning will you use and how?
- (iii) What, according to Medongall, is instinct?
- (iv) Give any two important definitions of 'intelligence' as laid down by *two* different psychologists.

5. Answer the following questions in not more than 40 word.

Each question carries 3 marks only :

3 x 6 =18

- (i) What, according to Descarte, is the meaning of 'Psychology'?
- (ii) What is sensation?
- (iii) What is heredity?
- (iv) How can you sublimate your younger brother's emotional development who always hates you?
- (v) What is emotion?
- (vi) How will you measure the I.Q. of a 9 years old boy whose M.A. is 10 ?

6. Answer the following questions by a word/words/a sentence.

Each question carries only *one* (1) mark:

1 X 8=8

- (i) From which language is the word 'Psychology' derived

- (ii) Do you agree with saying that education and psychology are the two sides of the same coin?
- (iii) Which famous educationist invented "Didactic Apparatus" for training the sensation of young children?
- (iv) How many chromosomes does a human cell contain?
- (v) Who said, "Learning is the modification of the reactions of an organism through experience"?
- (vi) What method of learning will you use in a complete dark night, while opening a lock out of a bundle of keys?
- (vii) Who propounded the formula of measuring I.Q.?
- (viii) Can I.Q. of a person generally change from time to time?
7. Rewrite the sentences by filling the gaps with the appropriate word/words/name from the given alternative sentences: 1x4=4
- (i) A Swiss School master _____ emphasized the fact that "The art of education must be based on an accurate knowledge of mental life."
(Descarte, Woodworth, Pestalozzi, Freud)
- (ii) _____ has pointed out that human development takes place in four well defined stages.
(Pestalozzi, Stanely Hall, Earnest Jones, Raymont)
- (iii) According to _____, Memory consists in remembering what has previously been learned.
(Ross, Drever, McDongall, Woodworth)
- (iv) According to _____, intelligence is the faculty to understand the complicated relationship between different things and ideas.
(Stern, Wells, Binet, Spearman)

GROUP-B

8. Calculate Mean and Median of the scores given below:

$$4+4=8$$

Scores	Frequencies
10-15	3

15-20	6
20-25	9
25-30	7
30-35	3
35-40	2

9. Answer the following question. Each carries 4 marks only: 2x4=8

(i) Draw a histogram in a graph paper from the scores given below:

Scores	Frequencies
5-10	3
10-15	1
15-20	5
20-25	3
25-30	2

(ii) Draw a polygon in a graph paper from the scores given below:

Scores	Frequencies
5-9	2
10-14	3
15-19	4
20-24	3
25-29	2

10. Answer the following questions. Each question carries 3 marks only : 3x3=9

(i) Give any *three* (3) important uses of statistics in education.

(ii) When the scores are ungrouped, how can Mode be determined?

(iii) Tabulate the following scores into a frequency distribution table using a class interval of 3 and begin with 1-3. 1. 4. 5. 6. 7. 8. 9.9. 10. 12.

11. Answer the following question. Each question carries only 1 (one) mark :

1 x 3=3

(i) From which language is the word "Statistics" originated?

(ii) Which method of Central Tendency must be used when the measure of central tendency must be the most typical value?

(iii) Can the values of Mean and Median of a grouped distribution decide the Mode ?

12. Re-write the sentences by filling the gapes with the appropriate word/numerical figure from the given alternatives against the respective sentences : 1
x2=2

(i) The exact mid point of the class interval 9.5 to 4.5 is _____

(11, 11, 5, 12, 12, 5)

(ii) _____ will be used when the measure of central tendency having the greatest stability is wanted.

(Mean, Median, Mode, Range)

EDUCATION

Scoring Key /Outline Answer And Marking Scheme

1. Any eight:

1. Sensation precedes perception. Perception follows sensation. 1
2. Sensation gives raw materials of knowledge.
Perception develops raw materials into definite knowledge. 1
3. Sensation is passive. Perception is active 1
4. Sensation is representative. Perception is presentative representative. 1
5. Sensation is abstract. Perception is concrete. 1
6. Sensation is meaningless. Perception is meaningful. 1
7. Sensation is acquaintance with an object. Perception is knowledge of the object. 1
8. Sensation is consciousness of things. Perception is consciousness of its existence. 1
9. Sensation gives us only partial knowledge of an object. Perception gives complete knowledge of an object. etc. 1

2. Any four : 2x4=8

At birth immature and helpless:
Inquisitiveness
Questioning age
begin to learn
no sense of morality
ruled by principles of pleasure
and pain.
Play
to much imagination
responsive to various sensory stimuli
age of auto-erotism or self love.
etc.

3. Any four 2x4=8

to create interest.
to create motivation.
to present examples.
to remove monotony.
to correlate bookish knowledge with
practical knowledge.
to approach the students with enthusiasm,
sympathy and courage.
etc.

4. To answer in not more than 50 words : 4

(i) to write importance of educational psychology.

(ii) Law of exercise or practice - when repeated it becomes prompt, easy and definite, etc.

(iii) "An innate disposition which determines the organism to perceive any object of a certain class and to experience in its presence certain excitement and an impulse to action which finds expression in a specific mode of behaviour in relation to that object."

4

(iv) Any two: 4+4=8

(a) Terman - "Intelligence is the capacity for abstract thinking."

(b) Binet - "Intelligence is judgment, or commonsense, initiative, the ability to adopt oneself, to judge well, understand well and reason well."

(c) Stern - "Intelligence is the general adaptability to new problems and conditions of life." etc.

5. To write in not more than 40 words:

- (i) 'the Science of consciousness' - it comes from the theory of psycho-physical parallelism, etc. 3
- (ii) an act of the sense organ which when stimulated sends nerve current to the sensory centres of the brain and the first response of the brain is sensation. 3
- (iii) a force which moulds the offspring in the likeness of the parents - consists in likeness and variations between the progenitor and the offspring - transmission of the mental and physical characteristics from the parents to the children - like tends to beget like - blood will tell, etc. 3
- (iv) Love and affection - to redirect to health channels, etc. 3
- (v) derived from a Latin word - 'Emovere' means 'to stir up' to agitate'. 3

an unlearned behaviour pattern rich in mental content and accompanied by overt or latent expression - Intense feelings are also called emotions -

Emotion is a moved or stir up state of the organism, etc.

(vi) By applying

$$\begin{aligned} 1. Q. &= \frac{MA \times 100}{CA} \\ &= 10/9 \times 100 \\ &= 111.1 \end{aligned}$$

- 6.
 - i) Greek 1
 - ii) Yes 1
 - iii) Dr. Maria Montessori 1
 - iv) 46 (23 pairs) 1
 - v) Calvin 1
 - vi) Trial and Error 1
 - vii) Termem 1
 - viii) Generally no t 1
- 7.
 - i) Pestalozzi 1

- ii) Earnest Jones 1
- iii) Woodworth 1
- iv) Spearman 1

8. i) To calculate Mean either by short method or long Method.

4

$$M = 23.166$$

$$= 23.17$$

ii) To calculate Median using:

4

$$Mdn = l + \left[\frac{N/2 - F}{fm} \right] i$$

When, l = exact lower limit of the class interval upon which the median lies.

$N/2$ = One-half the total no. of scores.

F = Sum total of the scores on all intervals below l .

fm = frequency within the interval upon which the median falls.

i = length of class interval.

$$\begin{aligned} Mdn &= 19.5 + \left[\frac{15-9}{9} \right] \times 5 \\ &= 19.5 + (6/9) \times 5 \\ &= 19.5 + 0.666 \times 5 \\ &= 19.5 + 3.33 \\ &= 22.83 \end{aligned}$$

9. i) Drawing the histogram in a graph paper be demanded. 4

ii) Drawing the polygon in a graph paper be demanded. 4

10. i) Any three uses of statistics be demanded. $1 \times 3 = 3$

ii) To determine mode when the scores are ungrouped we count the frequencies of each variate arranging the data in an array form - the variate which has the maximum frequency is the mode.

(iii) Scores	Tallies	f
10 -12		2
7-9		4

	4-6	3	
	1-3	<u>1</u>	
		N = 10	3
11.	[i] German		1
	[ii] made		1
	[iiil] Yes		1
12.	(i) 12		1
	(ii) Mean		1