

Test Examination 2015

Bangabasi College

Part II

Psychology – Hons.

Time 4 hrs

Full marks 100

Module 2.1, 2.2, 2.3

1. Answer any four of the following (word limit 300).....5×4 =20

- a. Differences between skewness and kurtosis
- b. Hypothesis and theory
- c. Relationship between growth and development
- d. Concept of item analysis
- e. Types of psychological tests
- f. Concept of standard error
- g. Quasi experimental design
- h. How you identify a gifted children?

2. Answer any two of the following (word limit 800)..... 10×2 =20

- a. What is hypothesis? Discuss the criteria of good hypothesis. 2+8
- b. Write down the different stages of prenatal development. 10
- c. Define statistical inferences. Write down the steps involved in drawing a statistical inferences. 2+8
- d. What is projective technique? Critically evaluate any one method of projective test 2+8
- e. What is psychological test? Discuss about the construction of a standard psychological test. 2+8
- f. Define Normal probability curve. Describe its properties. Write down the area of NPC with diagram. 1+6+3

Answer any four of the following (word limit 1000).....15×4 =60

- a. Discuss about the methods of measuring reliability of a test. If the reliability coefficient of the half test is 0.60. calculate the reliability of the whole test. 12+3
- b. What are the criteria of good research design and narrate the basic principles of it 7+8

c. Define validity. Discuss about the different types of validity. What are the factors affecting validity of a test. 3+8+4

d. Why adolescence is regarded as the most difficult stage of life. 15

e. Define exceptional children. Who are gifted? Describe the educational procedure of the gifted children. 3+2+10

f. What is correlation? Describe the assumptions of rank differences method. Calculate the rank differences of the following and Comment on the result. 2+5+8

Marks in hindi—30,40,50,20,10,45,22,18

Marks in English—55,75,60,12,11,38,25,15

g. What is chi square? When Yates' correction is applied? Calculate the chi square for the following record and Comment on the result. 2+5+8

Teacher educator	Lecture method preferred	Discussion method preferred	total
Male	10	5	15
female	12	3	15
total	22	8	30

h. Write down the assumptions of t test. Calculate the t value of the following data and comment on result 2+5+8

a group of subjects were given an attitude test on a controversial topic. Then they were shown a film favorable to the subject and the attitude test was then re conducted. The scores were tabulated below

X1— 16,18,20,24,24,22,20,18,10,8,20

X2— 24,20,24,28,30,20,24,22,18,18,24

two tail test

TABLE D Table of  $t$ , for use in determining the significance of statistics

Example: When the  $df$  are 35 and  $t = 2.03$ , the .05 in column 3 means that 5 times in 100 trials a divergence as large as that obtained may be expected in the positive and negative directions under the null hypothesis.

Degrees of Freedom	Probability (P)			
	0.10	0.05	0.02	0.01
1	$t = 6.34$	$t = 12.71$	$t = 31.82$	$t = 68.66$
2	2.92	4.30	6.96	9.92
3	3.35	3.18	4.84	5.84
4	2.13	2.78	3.75	4.80
5	2.02	2.57	3.36	4.08
6	1.94	2.45	3.14	3.71
7	1.90	2.38	3.00	3.50
8	1.86	2.31	2.90	3.36
9	1.83	2.28	2.82	3.25
10	1.81	2.23	2.76	3.17
11	1.80	2.20	2.72	3.11
12	1.78	2.18	2.68	3.06
13	1.77	2.16	2.65	3.01
14	1.76	2.14	2.62	2.98
15	1.75	2.13	2.60	2.95
16	1.75	2.12	2.58	2.92
17	1.74	2.11	2.57	2.90
18	1.73	2.10	2.55	2.88
19	1.73	2.09	2.54	2.86
20	1.72	2.08	2.53	2.84
21	1.72	2.08	2.52	2.83
22	1.72	2.07	2.51	2.82
23	1.71	2.07	2.50	2.81
24	1.71	2.06	2.49	2.80
25	1.71	2.06	2.48	2.79
26	1.71	2.06	2.48	2.78
27	1.70	2.05	2.47	2.77
28	1.70	2.05	2.47	2.76
29	1.70	2.04	2.46	2.75
30	1.70	2.04	2.46	2.75
35	1.69	2.03	2.44	2.73
40	1.68	2.02	2.43	2.71
45	1.68	2.02	2.41	2.69
50	1.68	2.01	2.40	2.68
60	1.67	2.00	2.39	2.66
70	1.67	2.00	2.38	2.65
80	1.66	1.99	2.38	2.64
90	1.66	1.99	2.37	2.63
100	1.66	1.98	2.36	2.63
125	1.66	1.98	2.36	2.62
150	1.66	1.98	2.35	2.61
200	1.65	1.97	2.35	2.60
300	1.65	1.97	2.34	2.59
400	1.65	1.97	2.34	2.59
500	1.65	1.96	2.33	2.58
1000	1.65	1.96	2.33	2.58
$\infty$	1.65	1.96	2.33	2.58

.05 0

.01  
(one-tail)

TABLE E  $\chi^2$  Table. *P* gives the probability of exceeding the tabulated value of  $\chi^2$  for the specified number of degrees of freedom (*df*). The values of  $\chi^2$  are printed in the body of the table.\*

<i>df</i>	0.95	0.90	0.80	0.70	0.50	0.30	0.20	0.10	0.05	0.02	0.01
1	0.000993	0.00158	0.00212	0.145	0.455	0.774	1.642	2.706	3.841	5.412	6.635
2	0.100	0.211	0.446	0.713	1.386	2.408	3.219	4.605	5.991	7.824	9.210
3	0.352	0.599	1.005	1.423	2.366	3.665	4.642	6.251	7.815	9.837	11.345
4	0.711	1.064	1.649	2.197	3.357	4.578	5.989	7.779	9.488	11.668	13.277
5	1.145	1.675	2.343	3.000	4.351	6.064	7.289	9.236	11.070	13.368	15.086
6	1.635	2.204	3.070	3.856	5.248	7.231	8.558	10.645	12.592	15.033	16.812
7	2.167	2.833	3.822	4.671	6.349	8.383	9.803	12.017	14.067	16.622	18.475
8	2.733	3.493	4.594	5.527	7.341	9.524	11.030	13.362	15.507	18.168	20.090
9	3.325	4.167	5.380	6.345	8.343	10.656	12.242	14.684	16.919	19.679	21.666
10	3.840	4.865	6.179	7.207	9.342	11.781	13.442	15.987	18.307	21.161	23.209
11	4.575	5.578	6.989	8.145	10.341	12.909	14.631	17.275	19.675	22.618	24.726
12	5.226	6.317	7.807	9.034	11.340	14.011	15.812	18.549	21.026	24.054	26.217
13	5.892	7.081	8.634	9.926	12.340	15.119	16.985	19.812	22.362	25.472	27.688
14	6.571	7.870	9.477	10.821	13.339	16.222	18.151	21.064	23.675	26.873	29.141
15	7.261	8.687	10.307	11.721	14.339	17.322	19.311	22.307	24.996	28.259	30.578
16	7.962	9.537	11.152	12.624	15.338	18.418	20.465	23.542	26.296	29.633	32.000
17	8.672	10.405	12.002	13.531	16.334	19.511	21.615	24.769	27.587	30.998	33.409
18	9.390	10.866	12.857	14.440	17.328	20.601	22.760	25.989	28.869	32.346	34.805
19	10.117	11.651	13.710	15.352	18.334	21.689	23.900	27.204	30.144	33.697	36.191
20	10.851	12.443	14.578	16.266	19.337	22.775	25.038	28.412	31.410	35.020	37.566
21	11.591	13.240	15.445	17.182	20.337	23.858	26.171	29.615	32.671	36.343	38.932
22	12.338	14.041	16.314	18.101	21.337	24.959	27.301	30.813	33.924	37.659	40.289
23	13.091	14.846	17.187	19.021	22.337	26.018	28.425	32.007	35.171	38.908	41.638
24	13.845	15.659	18.060	19.943	23.337	27.098	29.553	33.196	36.415	40.270	42.980
25	14.611	16.473	18.944	20.867	24.337	28.172	30.675	34.382	37.652	41.606	44.314
26	15.379	17.292	19.830	21.792	25.336	29.248	31.796	35.663	38.883	42.856	45.642
27	16.151	18.114	20.700	22.719	26.336	30.319	32.912	36.741	40.111	44.140	46.953
28	16.928	18.939	21.588	23.647	27.336	31.391	34.027	37.918	41.337	45.410	48.275
29	17.708	19.768	22.475	24.577	28.336	32.461	35.139	39.087	42.577	46.693	49.588
30	18.493	20.599	23.364	25.508	29.336	33.530	36.250	40.256	43.773	47.902	50.892

\* Adapted from R. A. Fisher, *Statistical Method for Research Workers*, Oliver & Boyd, by permission of publishers.