**AGA KHAN UNIVERSITY EXAMINATION BOARD**

**HIGHER SECONDARY SCHOOL CERTIFICATE**

**CLASS XII**

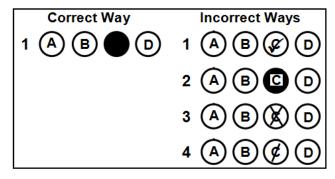**ALTERNATE TO PRACTICAL (ATP)**

**MODEL EXAMINATION PAPER 2021**

**Psychology Paper III**

**Time:   25 minutes    Marks: 15**

**INSTRUCTIONS**

1. Read each question carefully.

2. Answer the questions on the separate answer sheet provided. DO NOT write your answers on the question paper.

3. There are 100 answer numbers on the answer sheet. Use answer numbers 1 to 15 only.

4. In each question, there are four choices A, B, C, D. Choose ONE. On the answer grid, black out the circle for your choice with a pencil as shown below.



**Candidate's Signature**

5. If you want to change your answer, ERASE the first answer completely with a rubber, before blacking out a new circle.

6. DO NOT write anything in the answer grid. The computer only records what is in the circles.

7. You may use a scientific calculator if you wish.

**Note: Use the information in the given table to answer Q.1, Q.2 and Q.3.**

| Class Interval | Frequency | Class Mark | *fx* |
|---|---|---|---|
| 20-29 | 09 | | |
| 30-39 | 08 | **X** | |
| 40-49 | 03 | | **Y** |
| 50-59 | 01 | | |
| 60-69 | 04 | | |
| Total | | | |

1.    The class mark at point X will be

   A.    39.5
   B.    34.5
   C.    30.5
   D.    29.5

2.    The value of *fx* at point Y will be

   A.    120
   B.    133.5
   C.    147
   D.    148.5

3.    The mean of the given data will be

   A.    25.0
   B.    33.2
   C.    37.7
   D.    42.2

4.    In drawing a frequency polygon, the values on y-axis represent the

   A.    frequency.
   B.    class mark.
   C.    values of *fx*.
   D.    class boundary.

**Note: Use the information in the given table to answer Q.5, Q.6 and Q.7.**

The following data are the marks awarded to students on their term assignment.

| 6 | 7 | 5 | 7 | 7 | 8 | 7 | 6 | 9 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 9 | 6 | 8 | 8 | 9 | 5 | 6 | 4 | 8 |

5.    The CORRECT tally marks for this data will be

A.

| Mark | Tally |
|------|-------|
| 4 | II |
| 5 | II |
| 6 | IIII |
| 7 | ̶I̶I̶I̶I̶ |
| 8 | IIII |
| 9 | III |

B.

| Mark | Tally |
|------|-------|
| 4 | III |
| 5 | I |
| 6 | IIII |
| 7 | ̶I̶I̶I̶I̶ |
| 8 | ̶I̶I̶I̶I̶ |
| 9 | II |

C.

| Mark | Tally |
|------|-------|
| 4 | II |
| 5 | III |
| 6 | IIII |
| 7 | ̶I̶I̶I̶I̶ |
| 8 | IIII |
| 9 | III |

D.

| Mark | Tally |
|------|-------|
| 4 | III |
| 5 | II |
| 6 | IIII |
| 7 | ̶I̶I̶I̶I̶ |
| 8 | ̶I̶I̶I̶I̶ |
| 9 | I |

PLEASE TURN OVER THE PAGE

6.      The median of the given data will be

        A.      5.5
        B.      6
        C.      7
        D.      7.5

7.      The mean of the given data will be

        A.      6
        B.      6.3
        C.      6.8
        D.      7

**Note: Use the information in the given table to answer Q.8, Q.9 and Q.10.**

| Class Interval | Class Boundary | Class Mark | Frequency | Cumulative Frequency |
|---|---|---|---|---|
| 51-58 |   |   | 11 |   |
| 59-66 | **X** |   | 09 |   |
| 67-74 |   |   | 12 |   |
| 75-82 |   | **Y** | 14 |   |
| 83-90 |   |   | 08 | **Z** |
| 91-98 |   |   | 16 |   |

8.      The class boundary at point X will be

        A.      58.5-65.5
        B.      58.5-66.5
        C.      59.5-65.5
        D.      59.5-66.5

9.      The class mark at point Y will be

        A.      73.5
        B.      74.5
        C.      78.5
        D.      82.5

10.     The cumulative frequency at point Z will be

        A.      08
        B.      44
        C.      54
        D.      70

**Note: Use the information in the given table to answer Q.11, Q.12 and Q.13.**

| Class Interval | Class Boundary | Class Mark | Frequency |
|---|---|---|---|
| 50-59 | 49.5-59.5 | | 11 |
| 60-69 | 59.5-69.5 | **X** | 11 |
| 70-79 | 69.5-79.5 | | 09 |
| 80-89 | 79.5-89.5 | | 06 |
| 90-99 | 89.5-99.5 | | 06 |
| 100-109 | 99.5-109.5 | | 07 |

11.    The class mark at point X will be

     A.    59.5
     B.    64.5
     C.    69.5
     D.    75.5

12.    The median of the data using the formula L + h/$f$ [N/2-C.F] will be

     A.    72.83
     B.    84.45
     C.    89.54
     D.    104.65

13.    If the value of $\sum f$x = 3785, then the mean of the given data will be

     A.    55.66
     B.    75.7
     C.    88.02
     D.    99.5

14.    In order to find the median of ungrouped data without using the relevant formula, the first step will be to

     A.    arrange the data in an ascending/ descending order.
     B.    calculate the sum of all the numbers in the data.
     C.    count the total number of data.
     D.    make a frequency table.

15.    Use the given table to answer the following question.

| Class Interval | Frequency | Class Mark | *fx* |
|---|---|---|---|
| 100-103 | 02 | | |
| 104-107 | 11 | | |
| 108-111 | 15 | | |
| 112-115 | 11 | | |
| 116-119 | 11 | | |
| Total | | | **Z** |

The value of $\sum fx$ at point Z will be

A.    5000
B.    5547
C.    5550
D.    5950

END OF PAPER

# Please use this page for rough work

# Please use this page for rough work