

## V34/V58/MES108(P)/S27024(P)/EE/201607

**Time : 5 Hours**

**Marks : 100**

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**Instruction for the students:**

Do not write about points of theoretical introduction, unless asked specifically.

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1. Determine Total Suspended Solids, Total Dissolved Solids and Total Solids of water sample provided. 20

OR

Determine the residual chlorine from drinking water using calorimetric method.

2. Calculate the mean deviation about median and mode for the following data: 20

Height (in inches)	60	61	62	63	64	65	66	67	68
No. of students	2	0	15	29	25	12	10	4	3

OR

The table below gives the respective heights X and Y of a sample of 10 fathers and their sons.

Height of father X (in inches)	65	63	67	64	68	62	70	66	68	67
Height of sons Y (in inches)	68	66	68	65	69	66	68	65	71	67

- Find regression line of Y on X.
- Find regression line of X on Y.
- Estimate son's height, if father's height is 65 inches.
- Estimate father's height, if son's height is 60 inches.
- Compute correlation coefficient between X and Y.

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| 3. | Determination of water holding capacity of soil.                                 | 10 |
| OR |  |    |
|    | Determine the relative humidity from atmosphere.                                 |    |
| 4. | Determine the effect of heavy metals on enzyme activity.                         | 20 |
| OR |  |    |
|    | Determine the amount of iron and manganese from given sample.                    |    |
| 5. | Identify and give construction, working and use of the metrological instruments. | 10 |
| 6. | Journal  | 10 |
| 7. | Tour report  | 10 |

