



UNIVERSITAS ISLAM INDONESIA  
FAKULTAS MIPA  
Jl. Kaliurang Km. 14,5 Jogjakarta

## ODD MIDTERM EXAM ACADEMIC YEAR 2020/2021

Course Name : Official Statistics II  
Study Program/Class : Statistics/a,b,c,d  
Day/Date : Friday/November 6, 2020  
Duration : 100 Minutes  
Lecture : Sekti Kartika Dini, S.Si., M.Si.  
Sifat Ujian : Open Sheet Double Folio (collected together with  
answer sheet in a separate file), Calculator,  
Distribution Table  
Online Media Used : Google Classroom

### Read Basmalah

#### Instructions for working on questions:

1. Complete the following questions independently, briefly, clearly, and responsibly
2. The answer to the question is typed in font and free space
3. The answer file is submitted in PDF format with the file name NIIM\_Name

#### LO : PP(a)-Science

Students understand various census and survey activities, especially activities on official economic statistics so that students understand the methodology, outputs and outcomes of these activities, and can perform analysis using statistical methods descriptive and inferential.

|  |
|--|
| <b>1 [Score 40 ]</b>   |
| <b>CO:</b><br>PPa1: Students are able to understand the methodology, methods and processes of data collection and who are the respondents  |
| <b>Indicator:</b><br>Students are able to explain the methodology, methods and processes of data collection and who the respondents are on official statistics in the economic field |
| <b>Question</b><br>Data is given in Table 1 below:   |

**Table 1.** Number of State Civil Apparatus by education level and gender

| Education Level                   | 2012           |                | 2013           |                | 2014           |                | 2015           |                | 2016           |                |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                   | Male           | Female         | Male           | Female         | Male           | Female         | Male           | Female         | Male           | Female         |
| Up to Elementary School           | 66172          | 4359           | 56416          | 4034           | 52603          | 3767           | 49264          | 3598           | 40851          | 3094           |
| Junior High School/Equivalent     | 95419          | 12929          | 81762          | 10864          | 77429          | 10826          | 72656          | 10519          | 64193          | 9480           |
| Senior High School/<br>Equivalent | 793535         | 581316         | 727043         | 515002         | 711030         | 491915         | 709131         | 475756         | 648850         | 428277         |
| Diploma I, II/Deed I, II          | 253127         | 424865         | 221277         | 364538         | 191015         | 312062         | 175138         | 274464         | 150539         | 227766         |
| Diploma III/Deed III/Bachelor     | 163519         | 259780         | 154033         | 258702         | 156871         | 270679         | 154185         | 273508         | 140028         | 260825         |
| Graduate Level/Doctoral/Ph.D      | 960777         | 852184         | 1020077        | 949057         | 1099683        | 1077423        | 1175287        | 1184919        | 1173032        | 1227414        |
| <b>Total</b>                      | <b>2332549</b> | <b>2135433</b> | <b>2260608</b> | <b>2102197</b> | <b>2288631</b> | <b>2166672</b> | <b>2335661</b> | <b>2222764</b> | <b>2217493</b> | <b>2156856</b> |

source: Publication of Central Bureau of Statistics : [www.bps.go.id](http://www.bps.go.id)

Based on **Table 1**, determine

- What variables are contained in the data? **(Score 10)**
- according to the time of collection, what category does the data fall into? **(Score 10)**
- according to the measurement scale, the level of education is a scalable data? **(Score 10)**
- according to the measurement scale, gender is a scalable data? **(Score 10)**

**2 [Score 20 ]****CO:**

PPa3: Students are able to calculate distribution statistical indicators

**Indicator:**

Students are able to calculate price index, inflation, index related to distribution statistics

**Question****Table 2.** Price of Goods in 2017-2018

| Type of Goods | Price in 2017 (Rp) | Price in 2018 (Rp) |
|---------------|--------------------|--------------------|
| Sugar         | 10.500             | 11.000             |
| Flour         | 9.500              | 10.000             |
| Butter        | 7.000              | 8.250              |
| Eggs          | 12.000             | 14.000             |

Based on the data in **Table 2**, determine the value of the simple aggregate price index**3 [Score 40 ]****CO:**

PPa3: Students are able to calculate distribution statistical indicators

**Indicator:**


Students are able to calculate price index, inflation, index related to distribution statistics

**Question****Table 3.** Price of Goods in 2016-2017

| Type of Goods | Price (Rp) |        | Quantity in 2016 | Quantity in 2017 |
|---------------|------------|--------|------------------|------------------|
|               | 2016       | 2017   |                  |                  |
| Rice          | 15.000     | 15.500 | 100              | 120              |
| Corn          | 11.000     | 12.500 | 60               | 55               |
| Green Beans   | 8.000      | 9.750  | 65               | 75               |
| Cassava       | 5.000      | 6.350  | 38               | 45               |

|   |            |
|---|------------|
| Based on the data in <b>Table 3</b> , determine:: |            |
| a. Value of the Lespeyres price weighted index    | (Score 10) |
| b. Paasche price-weighted index value             | (Score 10) |
| c. Fisher index value                             | (Score 10) |
| d. Drobish index value                            | (Score 10) |
|   |            |

Congratulations on your work, may you be blessed, & be given the best results

| The verification of Midterm Exam, Odd Academic Year 2020/2021 |  |                             |                   |   |
|---|--|-----------------------------|-------------------|---|
| The suitability of the problems with CO                       | The Completeness of the problems information         | Verifier                    | Verification date | Sign  |
| Suitable/ <del>Less suitable</del> /<br>Not Suitable          | Complete/ <del>Less Complete</del> /<br>Not Complete | Science cluster coordinator | 5-Nov-2020        |  |