# ENTRANCE TEST UNIVERSITAS INDONESIA

# SIMAK UI

## **SOCIAL SCIENCES TEST**

- Basic Mathematics
- Economy
- Indonesia and the World A
- Indonesia and the World B
- Integrated Social Sciences

**396** 



Universitas Indonesia 2013

## **GENERAL INSTRUCTIONS**

- 1. Before you begin work on the test, check the number of questions and the page numbers in the test booklet.
  - The booklet consists of 13 pages.
- 2. Write your student test number on the space provided in the answer sheet.
- 3. Write the code of the test booklet on the space provided in the answer sheet. The code of this test booklet is:  $396\,$
- 4. Read carefully each and every instruction on how to answer the questions.
- 5. Think carefully before answering every question, because incorrect answers will deduct points from your score (scoring system: correct +4, blank 0, incorrect -1).
- 6. Work on questions you find easy first, then continue with harder questions, so that all questions are answered.

- 7. Write your answers in the answer sheet provided.
- 8. For scrap paper, make use of the empty space in your test booklet and **do not use your answer sheet** as your answers will then fail to be processed
- 9. During the test, you are not allowed to ask or seek explanation about the questions being tested to anyone including the test supervisor.
- 10. When the test is complete, you are required to stay in your seat until the test supervisor approaches you to collect the answer sheet.
- 11. Make sure the answer sheet is not dirty, wet, folded, and torn.

## SPECIFIC INSTRUCTIONS

## **INSTRUCTION A:**

Choose one answer that it most appropriate

## **INSTRUCTION B:**

The questions consist of 3 parts, i.e. STATEMENT, CAUSE, and REASON that are arranged in sequence. Choose:

- (A) If the statements is correct, the reason is correct, and both show a cause and effect relationship;
- (B) If the statements is correct, the reason is correct, but both do not show a cause and effect relationship
- (C) If the statements is correct and the reason is incorrect
- (D) If the statements is incorrect and the reason is correct
- (E) If the statements and the reason are both incorrect

## **INSTRUCTION C:**

Choose

- (A) If (1), (2), and (3) are correct
- (B) If (1) and (3) are correct
- (C) If (2) and (4) are correct
- (D) If only (4) is correct
- (E) If all of them are correct

SUBJECTS : Basic Mathematics, Economy, Indonesia and the World A, Indonesia and the

World B, and Integrated Social Sciences

EXAM DATE : 23 JUNE 2013 TIME : 120 MINUTES

NO. OF QUESTIONS : 80

Remarks : Questions on BASIC MATHEMATICS

number 1 to 20

Questions on ECONOMY

number 21 to 35

Questions on INDONESIA AND THE WORLD A number 36 to 50 Questions on INDONESIA AND THE WORLD B number 51 to 65  $\,$ 

Questions on INTEGRATED SOCIAL SCIENCES number 66 to 80

## **BASIC MATHEMATICS**

*Use Instruction A to answer questions number* 1 *to* 18.

1. Let a, b, x be positive real numbers distinct from one, then

$$4(a \log x)^2 + 3(b \log x)^2 = 8(a \log x)(b \log x)$$
  
satisfy ....

- (A) for all values of a, b and x
- (B) if and only if  $b = a^2$
- (C) if and only if  $a = b^2$
- (D) if and only if x = ab
- (E) none of these
- 2. If  $\left(x \frac{1}{x}\right)^2 + 3\left(x \frac{1}{x}\right) = 10$  has solutions  $x_1$  and  $x_2$ , then  $x_1 + x_2 = \dots$ 
  - (A) -5 or 2
- (D) 3
- (B) -2 or 5
- (E) 10

- (C) -3
- $\begin{array}{l} 3. \ ^2 \log \left(2-\frac{1}{2}\right) \ + \ ^2 \log \left(2-\frac{2}{3}\right) \ + \ ^2 \log \left(2-\frac{3}{4}\right) \ + \\ \ldots + \ ^2 \log \left(2-\frac{510}{511}\right) = \ldots. \end{array}$ 
  - (A) 3

(D) 6

(B) 4

(E) 8

- (C) 5
- 4. If  $i^2 = -1$  then  $2(1+i)^{18} + (1-i)^{20}i = \dots$ 
  - (A) -1024
- (D) 1024
- (B) -1024i
- (E) 1024i

(C) 0

- 5. For how many values of the coefficient a do the equations  $x^2 + ax + 1 = 0$  and  $x^2 x a = 0$  have a common real solution?
  - (A) 0
  - (B) 1
  - (C) 2
  - (D) 3
  - (E) infinitely many
- 6. Each valve, A, B and C, when open, release water into a tank at its own constant rate. With all three valves open, the tank fills in 1 hour, with only valves A and C open it takes 1.5 hours, and with only valves B and C open it takes 2 hours. The number of hours required with only valves A and B open is ....
  - (A) 1.1

- (D) 1.25
- (B) 1.15

(E) 1.75

- (C) 1.2
- 7. The inequality  $y x < \sqrt{x^2}$  is satisfied if and only if ....
  - (A) y < 0
  - (B) y > 0 or y < 2x
  - (C)  $y^2 < 2xy$
  - (D) y < 0 or y < 2x
  - (E) x > 0 and y < 2x

- 8. If  $(2x+4) \log(x^2+1) < 1$ , and 2x+4 < 1 then the values of x satisfy ....
  - (A)  $-2 < x < -\frac{3}{2}$
  - (B)  $-2 < x \le 3$
  - (C)  $-1 \le x \le 3$
  - (D)  $-\frac{3}{2} < x \le -1$
  - (E) x > 3
- 9. In the sequence of numbers 5, 7, 2, ... each term after the first two is equal to the term preceding it minus the term preceding that. The sum of the first one hundred terms of the sequence is ....
  - (A) 0

(D) 9

(B) 2

(E) 14

- (C) 5
- 10. A circle with area  $A_1 A_2$  is contained in the interior of a larger circle with area  $A_1$ . If the radius of the larger circle is  $2\sqrt{3}$ , and if  $A_1, A_2, A_1 A_2$  is an arithmetic progression, then the radius of the smaller circle is ....
  - (A) 0

(D) 8

(B) 2

- (E) 12
- (C)  $2\sqrt{2}$
- 11. If  $\sin x + \cos x = \frac{1}{5}$  and  $0 \le x < \pi$ , then  $\tan x = ...$ 
  - (A)  $-\frac{4}{3}$
  - (B)  $-\frac{3}{4}$
  - (C)  $\frac{3}{4}$
  - (D)  $\frac{4}{3}$
  - (E)  $\frac{3}{3}$

- 12. The average age of a group consisting of Mathematicians and Actuaries is 35 years old. If the Mathematicians average is 40 years old and the Actuaries average is 25 years old, then the number of Mathematicians substract the number of Actuaries is ....
  - (A) The same with the numbers of Mathematicians
  - (B) The same with the numbers of Actuaries
  - (C) Two times the numbers of Actuaries
  - (D) Two times the numbers of Mathematicians
  - (E) Zero
- 13. Given that the invers of  $\begin{bmatrix} -7 & 5 & 4 \\ 1 & 1 & -1 \\ 5 & -7 & 4 \end{bmatrix}$  is

$$\frac{1}{24}\begin{bmatrix}1&16&3\\3&16&1\\4&8&4\end{bmatrix}$$
 then the solution of the

simultaneous equations

$$\begin{cases}
-7x + 5y + 4z &= 12 \\
x + y - z &= -2 \\
5x - 7y + 4z &= 9
\end{cases}$$

- (A)  $\begin{bmatrix} -58\\1\\110 \end{bmatrix}$
- (B)  $\frac{1}{24} \begin{bmatrix} -58\\1\\110 \end{bmatrix}$
- (C)  $24 \begin{bmatrix} 7 \\ 13 \\ 68 \end{bmatrix}$
- (D)  $\begin{bmatrix} 7\\13\\68 \end{bmatrix}$
- (E)  $\frac{1}{24} \begin{bmatrix} 7\\13\\68 \end{bmatrix}$

- 14. If the function f defined by  $f(x)=\frac{cx}{3x+5}$ ,  $x\neq -\frac{5}{3}$  with c constant, satisfies f(f(x))=x for all real numbers x except  $x=-\frac{5}{3}$ , then  $c=\dots$ 
  - (A) -5
  - (B)  $-\frac{5}{3}$
  - (C)  $\frac{5}{3}$
  - (D) 3
  - (E) 5
- 15. The lines L and K are symmetric to each other with respect to the line y=-x. If the equation of line L is y=ax+b with  $a\neq 0$  and  $b\neq 0$ , then the equation of K is y=...
  - (A)  $\frac{1}{a}x + b$
  - (B)  $-\frac{1}{a}x + b$
  - (C)  $-\frac{1}{a}x \frac{b}{a}$
  - (D)  $\frac{1}{a}x + \frac{b}{a}$
  - (E)  $\frac{1}{a}x \frac{b}{a}$
- 16.  $\left\{ \begin{bmatrix} 3 & 2 & -1 \\ 1 & 1 & -1 \\ 0 & 2 & -1 \end{bmatrix} \begin{bmatrix} 1 & -1 & 0 \\ 1 & -1 & 1 \\ 2 & -5 & 2 \end{bmatrix} \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & -1 \\ 0 & 3 & 0 \end{bmatrix} \right\}^{3} = \dots$ 
  - (A)  $\begin{bmatrix} 3 & 0 & 0 \\ 0 & 3 & -1 \\ 0 & 3 & 0 \end{bmatrix}$
  - (B)  $\begin{bmatrix} 27 & 0 & 0 \\ 0 & 27 & -1 \\ 0 & 27 & 0 \end{bmatrix}$
  - (C)  $\begin{bmatrix} 27 & 0 & 0 \\ 0 & 27 & 0 \\ 0 & 0 & 0 \end{bmatrix}$
  - (D)  $\begin{bmatrix} 27 & 0 & 0 \\ 0 & 27 & 0 \\ 0 & 0 & 27 \end{bmatrix}$
  - (E)  $\begin{bmatrix} 3 & 0 & 0 \\ 0 & 3 & -1 \\ 0 & 0 & 0 \end{bmatrix}$

- 17. The minimum value of  $\sin \frac{A}{3} \sqrt{3} \cos \frac{A}{3}$  is attained when A is ....
  - (A)  $\pi$
  - (B)  $2\pi$
  - (C) 0
  - (D)  $\frac{11\pi}{2}$
  - (E)  $\frac{11\pi}{3}$
- 18.  $\frac{\sqrt{\sqrt{5}+2}+\sqrt{\sqrt{5}-2}}{\sqrt{\sqrt{5}+1}}-\sqrt{3-2\sqrt{2}}=....$ 
  - (A) 1
  - (B)  $2\sqrt{2}-2$
  - (C)  $\frac{\sqrt{5}}{2}$
  - (D)  $\sqrt{\frac{5}{2}}$
  - (E) none of these

*Use Instruction C to answer questions number* 19 *to* 20.

- 19. If  $0 < \frac{a}{b} < \frac{c}{d} < 1$ , then ....
  - (1)  $1 < \frac{d}{c}$
  - (2)  $\frac{d}{c} < \frac{b}{a}$
  - $(3) \ \frac{b+d}{a+c} < \frac{bd}{ac}$
  - $(4) \ \frac{d}{c} < \frac{bd}{ac}$
- 20. If  $2^{\sin^2 x} + 5\left(2^{\cos^2 x}\right) = 7$ , then  $x = \dots$ 
  - (1)  $\frac{\pi}{2}$
  - (2)  $\pi$
  - (3)  $\frac{3\pi}{2}$
  - **(4)** 2π

## **ECONOMY**

*Use Instruction A to answer questions number* 21 *to* 29.

- 21. A vertical axis and horizontal axis of isoquant measure ....
  - (A) the quantity of capital and labour
  - (B) the quantity of output and capital
  - (C) the quantity of output and labour
  - (D) the quantity of output and the amount of cost
  - (E) utility and the amount of goods consumed
- 22. Suppose a competitive firm is losing money. This firm should continue to produce as long as ....
  - (A) the firm minimizes its loses
  - (B) the firm chooses its output so that marginal revenue (MR) equals to marginal cost (MC)
  - (C) price is greater than average fixed cost (AFC)
  - (D) price is greater than average cost (AC)
  - (E) price is greater than average variable cost (AVC)
- 23. The following cost does not increase as the level of output rises.
  - (A) Average variable cost
  - (B) Average cost
  - (C) Marginal cost
  - (D) Average fixed cost
  - (E) Variable cost
- 24. In general, real gross domestic product (GDP) is lower than the nominal of GDP and this difference is sourced from ....
  - (A) investment
  - (B) inflation
  - (C) net export
  - (D) interest rate
  - (E) net domestic income from abroad

- 25. Denote that MPC is marginal propensity to consume and MPS is marginal propensity to save. If the government increases its spending ( $\delta G$ ), then we would expect ....
  - (A) national income will increase by  $1 \times \delta G$
  - (B) national income will increase by  $(1/MPS \times \delta G)$
  - (C) national income will increase by  $(1/\text{MPC} \times \delta G)$
  - (D) an increase in government budget deficit
  - (E) an increase in current account deficit
- A demand for factor of production is derived demand because ....
  - (A) there is no supply for factor production
  - (B) it is derived from demand for labor
  - (C) it is derived from market demand
  - (D) the magnitude depends on output
  - (E) it is derived from demand for capital
- 27. When the average cost (AC) declines, we expect that ....
  - (A) the average variable cost (AVC) also declines
  - (B) the average cost equals to the marginal cost (MC)
  - (C) the marginal cost may increase or decrease
  - (D) the average cost increases
  - (E) the total cost decreases
- 28. A list of details that contains a balance of asset, liabilities, capital, revenue and expenses in a certain period is ....
  - (A) a ledger
  - (B) a trial balance
  - (C) a balance sheet
  - (D) a journal
  - (E) journal entry
- 29. An account that is considered real is ....
  - (A) rental income
  - (B) prepaid expenses
  - (C) sales
  - (D) rent
  - (E) transportation service revenue

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*Use Instruction B to answer questions number 30 to 32.* 

30. When total product reaches the maximum point, we have marginal product that equals to zero.

## **BECAUSE**

Marginal product is extra output that can be produced by using one more unit of the input.

31. When an income tax system is considered progressive, individuals with higher income should bear higher tax burden.

## **BECAUSE**

Progressive income tax is aimed to redistribute income to the society.

32. Money supply is comprised from currency and demand deposits, whereas generally the amount of currency exceeds the demand deposits.

#### **BECAUSE**

Currency is issued by the central Bank, while demand deposit is produced by the banking system.

*Use Instruction C* to answer questions number 33 to 35.

- 33. Which of the followings is/are characteristics of monopoly?
  - (1) Monopolist's maximum profit is achieved when marginal revenue is greater than marginal cost.
  - (2) In the short run, the monopolist never suffers a loss.
  - (3) Market with monopoly has homogeneous goods.
  - (4) The demand for goods to the monopolist equals to market demand.
- 34. The similarity between a perfect competition market and monopolistic competition market is/are
  - (1) numbers of sellers
  - (2) firms only earn normal profits in the long run
  - (3) free entry and free exit
  - (4) firms act as price taker

- 35. Bank Indonesia is conducting an easy money policy through the followings channel.
  - (1) Open market selling.
  - (2) Decreasing the reserve requirement ratio.
  - (3) Selective credit control.
  - (4) Decreasing the discount rate.

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## INDONESIA AND THE WORLD A

*Use Instruction A* to answer questions number 36 to 44.

- 36. Which American Economic Program helped rebuild war-torn European countries rebuild after world war II?
  - (A) War on poverty
  - (B) Marshal plan
  - (C) Postdam
  - (D) Magna Charta
  - (E) Camp David
- 37. Who was the first female chancellor of Germany in 2007?
  - (A) Willy Brandt
  - (B) Margareth Trust
  - (C) Angela Dorothea Merkel
  - (D) Margareth Schmidt
  - (E) Anggela Kohl
- 38. Which country was the birthplace of Christopper Columbus?
  - (A) Spain
  - (B) United States
  - (C) Portugal
  - (D) British
  - (E) Italy
- 39. In 2011, which square was at the center of Egypt's revolution?
  - (A) Tahrir Square
  - (B) Plaza Egypt's Square
  - (C) Plaza the Mayo
  - (D) Trafalgar Square
  - (E) Al Azhar Square
- 40. Who initiated the protestant movement against the roman catholick church?
  - (A) John Calvin
  - (B) James Luther
  - (C) Marthin Luther
  - (D) Marthin Calvano
  - (E) Stefanus Markus

- 41. Who ordered to drop atomic bombs on Hiroshima and Nagasaki?
  - (A) Richard Nixon
  - (B) Harry S Truman
  - (C) Lindon B Jhonson
  - (D) Gerald Ford
  - (E) D Eisenhower
- 42. King of Majapahit, Hayam Wuruk, sent Adityawarman to be a viceroy in Minangkabau area in 1347 AD because ....
  - (A) there would be a revolt around Padang against the kingdom of Majapahit
  - (B) Majapahit kingdom would like to have a peace treaty with the Minangkabau kingdom
  - (C) Majapahit kingdom wanted to control the gold mining in the headwaters of Batanghari River
  - (D) Majapahit kingdom wanted to ask for Minangkabau people help to fight the kingdom of Malacca
  - (E) the plantation yield of Minangkabau increased rapidly
- 43. One of the economic impacts after the end of the Crusades was ....
  - (A) exports of various goods from Europe to the Middle East region increased sharply
  - (B) the collapse of trade centers both in Europe and in the Middle East regions
  - (C) a new payment system in the purchase of goods
  - (D) there were more job opportunities in Europe
  - (E) trade traffics and mercantilism were intensified
- 44. Etymologically, Renaissance means rebirth. In the context of European history, the term refers to ....
  - (A) the revival of enormous interest to the rich heritage of ancient Greece and Rome in various aspects.
  - (B) the desire to reunite Europe into an empire just like in ancient Greek and Roman times.
  - (C) the efforts to regenerate great thinkers who had ever lived during the Roman and Greek times.
  - (D) attempts to interpret scientific findings that had ever been produced in Greek and Roman times.
  - (E) some events related to the medieval conflict between science and religion.

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*Use Instruction B to answer questions number* 45 *to* 46.

45. As one of small European countries, The Netherlands was dominated by greater powers in Europe until 16th century such as the Roman Empires and Spanish Kingdom.

#### **BECAUSE**

In addition to facing more powerful empires, some conflicts among the Dutch nobilities contributed to the instability of the Dutch political stage.

46. Having successfully established a solid administration in Batavia, VOC began to expand their trade into other areas of the archipelago, including the coastal areas of West Sumatra in the middle of 17th century.

## **BECAUSE**

VOC also used silver which was obtained from the Spanish silver mines in Peru and copper which was obtained from Japan to exchange with textile products from India and China such as cotton and silk.

*Use Instruction C* to answer questions number 47 to 50.

- 47. Which of the following countries was represented at the 1945 Postdam conference?
  - (1) British
  - (2) USSR
  - (3) USA
  - (4) French
- 48. Effort(s) to maintain independence during a revolution is/are ....
  - (1) diplomacy
  - (2) confrontation
  - (3) physical struggle
  - (4) improving the standard of living

- 49. (A) communist(s) who played an important role in the formation of labor unions after the first Russian Revolution of 1905 was/were ....
  - (1) Plekhanov
  - (2) V.I. Lenin
  - (3) Joseph Stalin
  - (4) Leon Trotsky
- 50. The discovery of various precious metals in South America did not turn the Dutch colonial administration desire for immediate mining exploitation on a large scale in the Dutch Indies because ....
  - (1) mining sector did not provide much revenue for the homeland
  - (2) mining exploration requires substantial amount of capital
  - (3) there was no mining regulation in the Dutch Indies at that time
  - (4) the Dutch colonial government still relied on state revenue from the plantation sector

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## INDONESIA AND THE WORLD B

*Use Instruction A* to answer questions number 51 to 57.

Mauna Kilapea Precipitation (in inches)

0 \* 10 inches
10 \* 20 inches
20 \* 30 inches
10 \* 10 inches
10 \* 20 inches

The lines on the map which connect the places with same intensity of rainfall is ....

- (A) Isotope
- (D) Isohyet
- (B) Isoterms
- (E) Isohypse
- (C) Isobar
- 52. Relationship between gross national product (GNP) and energy consumption in a country such as Indonesia is ....
  - (A) As GNP decreases, energy consumption increases.
  - (B) As GNP increases, energy consumption decreases.
  - (C) They both increase directly with each other
  - (D) There is no relationship between GNP and energy consumption.
  - (E) They both decrease directly with each other.
- 53. Which statement is NOT TRUE about the greenhouse effect?
  - (A) The greenhouse effect slows down re-radiation back into space.
  - (B) Carbon dioxide and methane are the primary greenhouse gases.
  - (C) The greenhouse effect began with the Industrial Revolution.
  - (D) Caused by climate change on Earth.
  - (E) Deforestation and forest degradation add to the greenhouse effect.

- 54. The purpose of topographic maps is to ....
  - (A) Represent areas of equal elevation.
  - (B) Display elevation and terrain by using of the contours.
  - (C) Determine the location and extent of urban areas.
  - (D) Determine the height or depth of the terrain.
  - (E) Measure distance between points.
- 55. Which of the following statements about mental maps is true?
  - (A) A map which represents the perceptions of a person about an objective knowledge.
    - (B) It is possible to reproduce on paper an exact replica of the mental image one has of an area.
    - (C) People have no mental maps of the places they have not experienced.
    - (D) As children grow older their mental maps become more spatially restrictive.
    - (E) They suggest that the more familiar we are with a local, the better our mental map becomes.
- 56. The term used to describe a place of settlement related to the actual location on the earth and is composed of the landscape specific to the area is ....
  - (A) site

- (D) hinterland
- (B) situation
- (E) location
- (C) settlement
- 57. Given 3 cities A, B, and C which has population 10,000 people; 30,000 people; and 15,000 people, respectively. The distance from A to B is 100 km, and from B to C is 150 km. What is the interaction ratio between A to B and B to C?
  - (A) 3:2
- (D) 3:4
- (B) 2:3
- (E) 2:1
- (C) 4:3

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*Use Instruction B to answer questions number* 58 .

58. Beting is the sediment located in the middle of river occurred as an impact of river flow which suddenly stops.

#### **BECAUSE**

The speed of water stream influenced by the condition of the upper areas.

*Use Instruction C to answer questions number* 59 *to* 65.

- 59. Alluvial is a type of soil which is very fertile and suitable for agriculture. The widest alluvial land is/are located in.
  - (1) Eastern of Sumatera
  - (2) Northern of Java
  - (3) Southern of Borneo
  - (4) Northern of Papua

60. Legend T = High pressure area (in milibar)

The air pressure during monsoon between Asia and Australia shown on the figures occurred in ....

R = Low pressure area (in milibar)

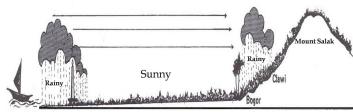
(1) January

Winter Season

- (2) May
- (3) July
- (4) September

- 61. The stream landscapes in arid areas are characterized by ....
  - (1) arroyos
  - (2) alluvial fans
  - (3) washes
  - (4) piedmont

62.



Tanjung Priok

Cisalak

Cibinong

The rainfall shown on figure occured in period ....

- (1) April to May
- (2) July to August
- (3) September to October
- (4) January to February
- 63. Which of the followings is/are the characteristics of extensive commercial farming?
  - (1) low land areas
  - (2) low labor requirements
  - (3) high population densities
  - (4) low capitalization per land unit
- 64. Which of the followings is/are the phenomenon of the transition period between monsoons in Indonesia?
  - (1) The pressure of atmosphere in Australia and Asia continents are balanced.
  - (2) The rainfall is high
  - (3) A lot of signed by monsoons
  - (4) Average of daily temperature is stable

- 65. Which statement(s) is/are INCORRECT about the Indonesia rainfall regime?
  - (1) There are two regimes of rainy in Indonesia: west and east regimes of rainy.
  - (2) The western islands with the west regime fallen by much more rainfall which is higher than eastern islands.
  - (3) The boundary of regimes in western and eastern located approximately on  $120^{\circ}$  BT
  - (4) In the eastern islands of east regime, places which located in the direction of west area, the rainfall season come early than the places in the east area.

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## INTEGRATED SOCIAL SCIENCES

Most cargo ships in Indonesia were made in 1960 - 1970. The old cargo ships were the first generation and were only able to carry 1,700 TEUs (twenty-foot equivalent units). Compare those ships with the cargo ships manufactured in 2006 to the present, which are the sixth generation, they have a loading capacity of 15,000 TEUs.

There is a sad fact about Tanjung Priok, the biggest port in Indonesia. The port can only accommodate cargo ships with a capacity of 5,000 TEUs. Meanwhile, most foreign cargo ships coming to the port have a capacity more than 10,000 TEUs. That the reason why foreign cargo ships have to transfer the cargo in the Singapore Port first before coming to Tanjung Priok Port. These factors have led to the construction of Kalibaru Port. Kalibaru Port will accommodate 10,000 TEUs of goods.

The construction of Kalibaru Port will accommodate a direct transfer of goods from overseas. The bigger the cargo capacity of the ships, the more efficient they are as cargo ships. The Kalibaru Terminal Port will be build on 195 acres of land, which will add 4.5 million TEUs of containers and 9.4 million cubic meters of oil and gas products.

*Use Instruction A to answer questions number* 66 .

66. Suppose x is the number of cargoships with a capacity of 1,700 TEUs, y is the number of cargo ships with a capacity of 5,000 TEUs and z is number of cargo ships with a capacity of 10,000 TEUs, which meets the following linear equation system:

$$2x + y + z = 725$$

$$2y + z = 375$$

$$3x - 2z = 600$$

The number of all cargo ships to be accommodated is ....

(C) 475

*Use Instruction B to answer questions number 67 to 70.* 

67. The replacement of older cargo ships into cargo ships with a larger capacity (cargo ships of the sixth generation) and improvement of facilities of Tanjung Priok Port will increase Indonesian exports and national income.

#### **BECAUSE**

National income using expenditure approach is calculated as the sum of all expenditures: consumption investment, government, and net exports.

68. If Indonesia replaces the older cargo ships into those with a capacity of 15,000 TEUs and the Tanjung Priok Port has also been able to accommodate ships with a carrying capacity of 15,000 TEUs as mentioned in the text, then PT Pembangunan Pelabuhan Indonesia (the Tanjung Priok Port management) will be able to work more efficiently and its total product (TP) curves shifts to top right side.

#### **BECAUSE**

The TP curve shows the correlation between the output and the number of labors (other factors of production are assumed to be constant).

69. Related to the sea transport mentioned in the text, the Indonesian government established PEPUSKA Foundation which later became PELNI

#### **BECAUSE**

PELNI was established as a response to PEPUSKA which had no power against Dutch-owned shipping company, i.e. NV. KPM.

70. The replacement harbour that will be built has the same hinterland as Tanjung Priok Harbour.

#### **BECAUSE**

The new harbour will have the same function as the old one, being as the biggest fish harbour in Indonesia.

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In contradiction to developed countries which started the first decade of the new millennium with a golden period and closed in a gloomy situation, Indonesia entered the new millennium in a difficult condition, since the economic instability during the post crisis of 1997/1998. Indonesia was able to overcome the transitional economic period as a country with income per capita at the end of 2011 reached US\$3,000, six times higher than the income in the critical period of 1997/1998.

If this economic growth could be maintained then it could be possible that Indonesia would become a country whose people would earn US\$4,000 per capita which is equal to an upper middle class income. This development at present could already be noticed in their life style.

In the near future, this middle class will influence all aspects of life like in politics, economy, social life and culture. This group of society will influence the domestics markets strongly in the basic demands and will give support to the Indonesian economic expansion and the new economic centers outside Java will also develop. In the last eight years, the average economic development is about 6.1% - 6.2%, one of the highest achievement in the world.

Nevertheless at the end of the year 2012 Indonesia had to face the challenge of "how to allocate the economic resources efficiently and effectively" and "how to develop the capacities to innovate and to be ready to absorb new technology". The ability to meet both challenges will determine Indonesia capability of sustaining the continuity of "a balance economic growth".

*Use Instruction A to answer questions number* 71 *to* 72.

- 71. The high level of economic growth as stated in paragraph 3 is determined by measuring the increase (in percentage) of ....
  - (A) nett export (export import)
  - (B) investment
  - (C) income per capita
  - (D) nominal gross domestic product
  - (E) real gross domestic product
- 72. If the growth of Indonesia's income per capita since 1998 is assumed linear, Indonesia would become a middle income country in ....
  - (A) 2014
- (D) 2017
- (B) 2015
- (E) 2018
- (C) 2016

*Use Instruction B to answer questions number 73 to 74.* 

73. Most soil in Java island is alluvial, which is resulted from volcanic sedimentation.

## **BECAUSE**

Java is an island stretches in the Mediterranean seismic belt.

74. The development of new economic centers outside Java was commonly found in cities with vast areas of low land.

#### **BECAUSE**

Development of economic centers needs roads and sources of energy.

*Use Instruction C to answer questions number* 75 .

- 75. The economic crisis in Indonesia discussed in paragraph 2 happened in 1959 when rupiah was 75% devaluated. The policy made by the government regarding the devaluation was ....
  - (1) devaluating paper bills of 500 rupiahs and 1000 rupiahs to 10% of its nominal value
  - (2) devaluating paper bills of 500 rupiahs and 1000 rupiahs to 25% of its nominal value
  - (3) freezing bank deposits of big values
  - (4) decreasing the amount of circulated money.

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The slow economic growth in countries of Indonesia market for agricultural products is anticipated to bring effects to the export performance in the agricultural sector. The Ministry of Agriculture had estimated a surplus in the trade balance 2012 agricultural products that was around US\$16.7 billion or not very much different from that of 2011.

Indonesia does not need to wait for economic recovery in developed countries to support the development of national palm oil industry. The government can make a variety of efforts to increase the absorption of Crude Palm Oil (CPO) in domestic markets with much better prices to minimize CPO import. For example, the government can encourage the production of biodiesel from 1.5 million to 2 million liters, encourage State Electricity Company (PLN) to use fuels from CPO, or rejuvenate palm plantation by providing subsidies and revising CPO export tax. Since Malaysia has taken similar actions, it would be more effective if both Indonesia and Malaysia work hand in hand.

The government stated that the products of the plantation subsector would still be the mainstay leading commodity of the agricultural sector with a tendency of increasing trade surplus. The leading export commodities are CPO, latex, tea, coffee, and cocoa, exported to China, the United States of America, a number of European countries, and India. In 2013, the export destination countries are believed to still experience slow economic growth. Even European countries have not shown certain awakening from the global crisis, so that, import of agricultural products, particularly from the plantation subsector, will not increase.

*Use Instruction A* to answer questions number 76 to 78.

- 76. Indonesia's agricultural products in international markets have demand elasticity that is ....
  - (A) perfectly elastic
  - (B) elastic
  - (C) unitary elastic
  - (D) inelastic
  - (E) perfectly inelastic
- 77. It is understood that 124 tons of oil palm can produce in average 1.9 kilo liters of biodiesel, while the average production of palm plantation is 4 tons per hectare. Basically, the production of palm has been fully absorbed for CPO; therefore, a new land area is needed to be able to increase the production of biodiesel as stated in paragraph 2. To meet the demand, a new area to open is ....
  - (A) 35,116 ha
- (D) 8,779 ha
- (B) 32,632 ha
- (E) 8,158 ha
- (C) 26,337 ha
- 78. According to Schumpeter, the main factor that leads to slow economic growth in the export destination countries of Indonesia's agricultural products mentioned in paragraph 1 is ....
  - (A) insufficient capital
  - (B) insufficient number of entrepreneurs
  - (C) insufficient investments
  - (D) insufficient skilled labors
  - (E) corruption

*Use Instruction C to answer questions number* 79 *to* 80.

- 79. Currently, the development of palm industry in Indonesia is commonly found in ....
  - (1) Kalimantan
  - (2) Papua
  - (3) Sumatera
  - (4) Sulawesi
- 80. In relation to the agricultural export performance stated in paragraph 1, Indonesia's prime export in the nineteenth century, among others, was ....
  - (1) latex
  - (2) tobacco
  - (3) coffee
  - (4) sugar

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