2023

Time - 3 hours

Full Marks - 80

*Answer **all groups** as per instructions.*
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.

GROUP – A

1. Fill in the blanks. (all)   [1 × 12

   ଶୂନ୍ୟସ୍ଥାନ ପୂରଣ କର। (ସମସ୍ତ)

   (a) Macroeconomics is known as the theory of _____.

   ସମଷ୍ଟି ଅର୍ଥନୀତିକୁ _____ର ତତ୍ତ୍ୱ କୁହାଯାଏ।

   (b) GNP = _____.

   ମୋଟ ଜାତୀୟ ଉତ୍ପାଦ = _____ ।

   (c) _____ variable is measured over a period of time.

   _____ ଚଳ ଏକ ସମୟ ଅବଧ୍ ମଧରେ ପରିମାପ ହୋଇଥାଏ।

   (d) Personal Consumption Expenditure + Personal Saving = _____.

   ବ୍ୟକ୍ତିଗତ ଉପଭୋଗ ବ୍ୟୟ + ବ୍ୟକ୍ତିଗତ ସଞ୍ଚୟ = _____ ।

(e) MU = PT equation is given by _____.

MU = PT ସମୀକରଣ _____ ପ୍ରଦାନ କରିଥିଲେ ।

(f) _____ is known as Barter system.

_____ କୁ ପଣ୍ୟ ବିନିମୟ ବ୍ୟବସ୍ଥା କୁହାଯାଏ ।

(g) _____ are Bank Money.

_____ ସବୁ ବ୍ୟାଙ୍କ ମୁଦ୍ରା ।

(h) "Money is a matter of four functions, a medium, a _____, a standard and a store."

ମୁଦ୍ରାର କାର୍ଯ୍ୟ ଅଟେ ଚାରି କିସମ : ମାନକ, _____, ଧାରକ ଓ ମାଧ୍ୟମ ।

(i) Inflationary gap is _____.

ସ୍ଫୀତ ବ୍ୟବଧାନ _____ ଅଟେ ।

(j) _____ will be the value of Multiplier, if MPC = 0.

ଯଦି ସୀମାନ୍ତ ଉପଭୋଗ ପ୍ରବୃଦ୍ଧି ଶୂନ୍ୟ ହୁଏ, ତେବେ ଗୁଣକର ମୂଲ୍ୟ _____ ହେବ ।

(k) _____ investment is independent of income.

_____ ବିନିଯୋଗ ଆୟ ଉପରେ ନିର୍ଭରଶୀଳ ନୁହେଁ ।

(l) The statistical device that measures the changes in the value of money is _____.

ସେହି ପରିସଂଖ୍ୟାନ ଯାହା ମୁଦ୍ରାର ମୂଲ୍ୟରେ ପରିବର୍ତ୍ତନର ମାପ କରିଥାଏ ତାହା _____ ଅଟେ ।

GROUP – B

2. Answer <u>any eight</u> of the following questions within two to three sentences each.   [2 × 8

ଯେକୌଣସି <u>୮ଟି</u> ପ୍ରଶ୍ନର ଉତ୍ତର ପ୍ରତ୍ୟେକକୁ ଦୁଇ ବା ତିନୋଟି ବାକ୍ୟରେ ପ୍ରଦାନ କର ।

(a) Define money.

ମୁଦ୍ରାର ସଂଜ୍ଞା ନିର୍ଣ୍ଣୟ କର ।

(b) How is stock variable different from flow variable ?

ଭଣ୍ଡାର ଚଳ ଓ ପ୍ରବାହ ଚଳ କିପରି ଭିନ୍ନ ଅଟନ୍ତି ?

(c) Personal disposable income

ବ୍ୟକ୍ତିଗତ ପ୍ରଯୁଜ୍ୟ ଆୟ

(d) Comparative statics

ତୁଳନାତ୍ମକ ସ୍ଥିରତା

(e) Circular flow of income

ଆୟର ଚକ୍ରୀୟ ପ୍ରବାହ

(f)   Green Accounting

ସବୁଜ ରକ୍ଷଣଶାସ୍ତ୍ର

(g)   Write two functions of money.

ମୁଦ୍ରାର ଦୁଇଟି କାର୍ଯ୍ୟ ଲେଖ।

(h)   Write two causes of deflation.

ମୁଦ୍ରା ଅବସ୍ଫୀତିର ୨ଟି କାରଣ ଉଲ୍ଲେଖ କର।

(i)   What is Say's law ?

ସେ'ଙ୍କର ନିୟମ କଣ ?

(j)   Consumption Function

ଉପଭୋଗ ଫଳନ

GROUP – C

3.   Answer <u>any eight</u> of the following questions within 75 words each.

ଯେକୌଣସି <u>୮ଟି</u> ପ୍ରଶ୍ନର ଉତ୍ତର ପ୍ରତ୍ୟେକକୁ ୭୫ଟି ଶବ୍ଦ ମଧ୍ୟରେ ପ୍ରଦାନ କର।

[3 × 8

(a)   Distinguish between micro and macro economics.

ବ୍ୟଷ୍ଟି ଓ ସମଷ୍ଟି ଅର୍ଥନୀତି ମଧ୍ୟରେ ପ୍ରଭେଦ ଦର୍ଶାଅ।

(b)   What is an investment multiplier ?

ଏକ ବିନିଯୋଗ ଗୁଣକ କଣ ?

(c) National income

ଜାତୀୟ ଆୟ

(d) What are the limitations of macro economics ?

ସମଷ୍ଟିଗତ ଅର୍ଥଶାସ୍ତ୍ର ପ୍ରତିବନ୍ଧତାଗୁଡ଼ିକ କଣ ?

(e) Distinguish between economic statics and economic dyna-mics.

ଆର୍ଥନୀତିକ ସ୍ଥିରତା ଓ ଆର୍ଥନୀତିକ ଗତିଶୀଳତା ମଧ୍ୟରେ ପାର୍ଥକ୍ୟ ଦର୍ଶାଅ ।

(f) Mention the steps in the construction of an Index Number.

ଏକ ସୂଚକାଙ୍କ ଗଠନ ଦିଗରେ ସୋପାନଗୁଡ଼ିକ ଉଲ୍ଲେଖ କର ।

(g) Depression

ମାନ୍ଦାବସ୍ଥା

(h) Functions of money

ମୁଦ୍ରାର କାର୍ଯ୍ୟ

(i) Explain Fisher's equation of exchange.

ଫିସରଙ୍କର ବିନିମୟ ସମୀକରଣ ବର୍ଣ୍ଣନା କର ।

(j) Distinguish between inflation and deflation.

ମୁଦ୍ରାସ୍ଫୀତି ଓ ମୁଦ୍ରା ଅବସ୍ଫୀତି ମଧ୍ୟରେ ପାର୍ଥକ୍ୟ ଦର୍ଶାଅ ।

GROUP – D

4. Answer <u>any four</u> of the following questions within 500 words each.

ଯେକୌଣସି <u>୪ଟି</u> ପ୍ରଶ୍ନର ଉତ୍ତର ପ୍ରତ୍ୟେକକୁ ୫୦୦ଟି ଶବ୍ଦ ମଧ୍ୟରେ ପ୍ରଦାନ କର।

(a) Distinguish between macro and micro economics. What are the limitations of macro economics ? [7

ସମଷ୍ଟିଗତ ଓ ବ୍ୟଷ୍ଟି ଅର୍ଥନୀତି ମଧ୍ୟରେ ପ୍ରଭେଦ ଦର୍ଶାଅ। ସମଷ୍ଟିଗତ ଅର୍ଥନୀତିର ସୀମାବଦ୍ଧତାଗୁଡ଼ିକ କଣ ?

(b) Explain the concepts of national income and show the interlinkage among them. [7

ଜାତୀୟ ଆୟର ଅବଧାରଣାଗୁଡ଼ିକ ବ୍ୟାଖ୍ୟା କର ଓ ସେଗୁଡ଼ିକ ମଧ୍ୟରେ ସ୍ଥିତ ଆନ୍ତଃସମ୍ପର୍କ ପ୍ରଦର୍ଶନ କର।

(c) Explain the difficulties of estimating national income. [7

ଜାତୀୟ ଆୟ ଆକଳନରେ ଅସୁବିଧାଗୁଡ଼ିକ ବର୍ଣ୍ଣନା କର।

(d) Describe expenditure method of estimating national income. [7

ଜାତୀୟ ଆୟ ଆକଳନର ଖର୍ଚ୍ଚ ପଦ୍ଧତି ଆଲୋଚନା କର।

(e) Explain the functions of money. [7

ମୁଦ୍ରାର କାର୍ଯ୍ୟ ବର୍ଣ୍ଣନା କର।

(f) What is deflation ? Explain the measures to control deflation.

[7

ଅବସ୍ଫୀତି କଣ ? ଅବସ୍ଫୀତିକୁ ନିୟନ୍ତ୍ରଣ କରିବା ପାଇଁ ଉପାୟଗୁଡ଼ିକ କଣ ?

(g) Explain the principle of effective demand. [7

ଫଳପ୍ରଦ ଚାହିଦା ନିୟମ ବର୍ଣ୍ଣନା କର।

(h) Explain the quantity theory of money. [7

ମୁଦ୍ରାର ପରିମାଣ ତତ୍ତ୍ୱ ବର୍ଣ୍ଣନା କର।

2023

Time - 3 hours

Full Marks - 80

*Answer **all groups** as per instructions.*
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.

GROUP – A

1. Answer <u>all</u> questions and fill in blanks as required.   [1 × 12

   (a) How many types of input-output models are there ?

   (b) In the equation $(I - A)X = F$, what does I stand for ?

   (c) The table showing the technical coefficients of different industries of the economy is called _____.

   (d) When production is consumed internally, the I-O model is called _____.

   (e) Given $y = f(x) = 3x^2$, find $f''(x)$.

   (f) For concave up, $f''(x)$ _____ 0.

(g) At the point of inflexion, $f''(x) =$ _____ and
$f'''(x) \neq$ _____.

(h) Give an example of implicit function.

(i) For determining curvature of the function, which order derivatives play important role.

(j) Given the function $u = f(x, y)$. f_{xy} and f_{yx} are called _____ partial derivatives.

(k) Given the function, $y = f(x)$. Write the 2nd order condition for the function to be minimum.

(l) Write Hessian Determinant.

GROUP – B

2. Answer <u>any eight</u> of the following questions within two to three sentences each.

[2 × 8

(a) Write any two assumptions of input-output analysis.

(b) State the two conditions prescribed by Hawkins and Simon for viability of I-O system.

(c) Find the second derivative of $y = 3x^4 - 2x^3 + 6x$.

(d) Show that the curve $y = 2x^3 - 4x^2$ is concave up at $x = 5$.

(e) Given $f'(x) > 0$ and $f''(x) < 0$, graph the curve and determine its nature.

(f) Integrate the function with respect to 'x', $\int \left(4e^{3x} + 1\right) dx$.

(g) Given MC = 1 + 2x + 6x², find TC.

(h) Find the area bounded by the curve y = x² and the x-axis, ordinates x = 1 and x = 3.

(i) The total cost of a firm is given as C = f(Q), where C represents total cost and Q represents output. Mention the two conditions under which the total cost will be minimised.

(j) Given U = f(x, y). State the conditions for saddle point.

GROUP – C

3. Answer any eight of the following questions within 75 words each.

[3 × 8

(a) Prepare an input-output table for any three industries having a final demand sector and also a labour input.

(b) Given $A = \begin{bmatrix} 1.2 & 0.3 \\ 0.4 & 1.8 \end{bmatrix}$, check the Hawkins-Simon conditions.

Is the system viable ?

(c) Given $A = \begin{bmatrix} 0.3 & 0.3 \\ 0.4 & 0.6 \end{bmatrix}$, find Adj(I−A).

(d) Find the third derivative of y = x³log x.

(e) If $y = ke^{2x} + le^{-2x}$, prove that $f''(x) = 4y$.

(f) If $x = \log t$, $y = \dfrac{1}{t}$, find $\dfrac{d^2y}{dx^2}$.

(g) Is the curve $y = \dfrac{1}{3}x^3 - 3x^2 + 8x - 5$ possesses a point of inflexion at $x = 3$?

(h) Given the production function $Q = L^{0.64} K^{0.36}$, find MP_L and MP_K, if $L = 1.5$ and $K = 1.1$.

(i) Evaluate $\displaystyle\int \dfrac{x^3}{x+1}dx$.

(j) Integrate the rational function : $\displaystyle\int \dfrac{x}{(x+1)(x+2)}dx$.

GROUP – D

4. Answer **any four** of the following questions.

(a) The input Coefficient Matrix (A) and final demand vector (D) for an economy with three sectors are given below. [7

$$A = \begin{bmatrix} 0.3 & 0.4 & 0.2 \\ 0.2 & 0.0 & 0.5 \\ 0.1 & 0.3 & 0.1 \end{bmatrix}, \quad D = \begin{bmatrix} 100 \\ 40 \\ 50 \end{bmatrix}$$

Calculate the gross output level of each sector to meet the

final demand.

(b) Given $A = \begin{bmatrix} 0.1 & 0.3 & 0.1 \\ 0 & 0.2 & 0.2 \\ 0 & 0 & 0.3 \end{bmatrix}$ and final demands are

F_1, F_2 and F_3. [7

Find the output levels consistent with the model. Also find the output level if $F_1 = 20$, $F_2 = 20$ and $F_3 = 100$.

(c) Examine the function for concavity and convexity for $y = 2x^3 - 3x^2 - 36x + 25$. Also find the point of inflexion. [7

(d) If $Z = \log(x^2 + y^2)$, show that $\dfrac{\partial^2 z}{\partial x^2} + \dfrac{\partial^2 z}{\partial y^2} = 0$. [7

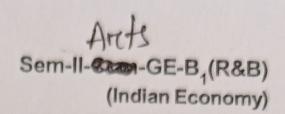(e) Integrate the following by method of substitution : [7

$$I = \int \frac{x^3}{\left(x^2 + 1\right)^3} dx .$$

(f) Find the profit maximising output, given $Q = 200 - 10P$ and

$AC = 10 + \dfrac{Q}{25}$. [7

(g) Given the utility function : $U = 3x_1 x_2 + 1$ subject to budget constraint $100 - 3x_1 - 5x_2 = 0$. Find x_1 and x_2 at which utility is maximum. [7

2023

Time - 3 hours

Full Marks - 80

*Answer **all groups** as per instructions.*
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.

GROUP – A

1. Fill in the blanks. (all)   [1 × 12

   ଶୂନ୍ୟସ୍ଥାନ ପୂରଣ କର । (ସମସ୍ତ)

   (a) In 300 BC, Kautilya wrote _____.

   ଖ୍ରୀଷ୍ଟପୂର୍ବ ୩୦୦ ମସିହାରେ କୌଟିଲ୍ୟ _____ ଲେଖିଥିଲେ ।

   (b) In Pre-British period, _____% of the total population lived in villages.

   ପ୍ରାକ୍ ବ୍ରିଟିଶ୍ ସମୟରେ ମୋଟ ଜନସଂଖ୍ୟାର _____% ଗ୍ରାମାଞ୍ଚଳରେ ବାସ କରୁଥିଲେ ।

   (c) Barter system was prevalent in _____.

   ପଣ୍ୟ ବିନିମୟ ବ୍ୟବସ୍ଥା _____ରେ ପ୍ରଚଳିତ ଥିଲା ।

(d) Colonialism is _____.

ଔପନିବେଶିକବାଦ _____ ଅଟେ ।

(e) British regime started in India after _____ war.

ଭାରତରେ ବ୍ରିଟିଶ୍ ଶାସନ _____ ଯୁଦ୍ଧ ପରେ ଆରମ୍ଭ ହେଲା ।

(f) In _____ year, Calcutta-Bombay National Highway was constructed.

କଲିକତା–ବମ୍ବେ ଜାତୀୟ ରାଜପଥ _____ ମସିହାରେ ତିଆରି ହେଲା ।

(g) Per capita income = $\dfrac{\cdots\cdots\cdots\cdots\cdots\cdots}{\text{Total Population}}$

ମୁଣ୍ଡପିଛା ଆୟ = $\dfrac{\cdots\cdots\cdots\cdots\cdots\cdots}{\text{ମୋଟ ଜନସଂଖ୍ୟା}}$

(h) Indian economy is _____ economy.

ଭାରତୀୟ ଅର୍ଥନୀତି _____ ଅର୍ଥନୀତି ଅଟେ ।

(i) The sex ratio as per 2001 Census was _____.

୨୦୦୧ ଜନଗଣନା ଅନୁଯାୟୀ ଲିଙ୍ଗାନୁପାତ _____ ଥିଲା ।

(j) In _____ year, 1st industrial policy was declared.

ପ୍ରଥମ ଶିଳ୍ପନୀତି _____ ମସିହାରେ ଘୋଷଣା କରାଗଲା ।

(k) The contribution of service sector to GDP is gradually
_____.

GDPକୁ ସେବାକ୍ଷେତ୍ରର ଅବଦାନ କ୍ରମଶଃ _____ ହେଉଛି ।

(l) Full form of TRYSEM is _____.

TRYSEMର ଫୁଲ ଫର୍ମ _____ଅଟେ ।

GROUP – B

2. Write notes on <u>any eight</u> of the following within two to three sen-
tences each.   [2 × 8

ଯେକୌଣସି <u>୮ଟିର</u> ଟିପ୍ପଣୀ ପ୍ରତ୍ୟେକକୁ ଦୁଇ ବା ତିନୋଟି ବାକ୍ୟରେ ପ୍ରଦାନ କର ।

(a) Condition of towns during Pre-British period

ପ୍ରାକ୍ ବ୍ରିଟିଶ୍ ସମୟରେ ସହର ଅବସ୍ଥା ।

(b) Division of labour

ଶ୍ରମ ବିଭାଜନ

(c) Colonial exploitation

ଔପନିବେଶିକ ଶୋଷଣ

(d) Pre-capita income

ମୁଣ୍ଡପିଛା ଆୟ

(e) Trends of growth of population

ଜନସଂଖ୍ୟା ବୃଦ୍ଧିର ଧାରା

(f) Density of population

ଜନସଂଖ୍ୟାର ଘନତା

(g) Land reform

ଭୂସଂସ୍କାର

(h) Industrial sickness

ଶିଳ୍ପ ରୁଗ୍ଣତା

(i) Seasonal unemployment

ଋତୁକାଳୀନ ବେକାରୀ

(j) Sources of agricultural credit

କୃଷି ରଣର ଉସ୍ୱ

GROUP – C

3. Write notes on <u>any eight</u> of the following within 75 words each.

ଯେକୌଣସି <u>୮ଟି</u>ର ଟିସ୍ପଣୀ ପ୍ରତ୍ୟେକକୁ ୭୫ଟି ଶଦ ମଧ୍ୟରେ ପ୍ରଦାନ କର।

[3 × 8

(a) Effects of colonial exploitation

ଔପନିବେଶିକ ଶୋଷଣର ପରିଣାମ

(b) Birth rate and death rate

ଜନ୍ମହାର ଓ ମୃତ୍ୟୁହାର

(c) Infant mortality rate

ଶିଶୁ ମୃତ୍ୟୁହାର

(d) Land tenure and Land reform

ଭୂ-ସ୍ବତ୍ତ୍ୱ ଓ ଭୂ-ସଂସ୍କାର

(e) Agricultural marketing

କୃଷିଜାତ ଦ୍ରବ୍ୟର ବଜାର ବ୍ୟବସ୍ଥା

(f) Types of agricultural credit

କୃଷି ଋଣର ପ୍ରକାରଭେଦ

(g) Small scale and Cottage industries

କ୍ଷୁଦ୍ର ଓ କୁଟୀର ଶିଳ୍ପ

(h) Types of unemployment

ବେକାରୀର ଶ୍ରେଣୀ ପ୍ରକରଣ

(i) Jawahar Rojagar Yojana (JRY)

ଜବାହର ରୋଜଗାର ଯୋଜନା

(j)   Steps for elimination of Income inequality

ଆୟ ଅସମାନତା ଦୂରୀକରଣ ନିମନ୍ତେ ପଦକ୍ଷେପ

GROUP – D

4. Answer <u>any four</u> of the following questions within 500 words each.

ଯେକୌଣସି <u>୪ଟି</u> ପ୍ରଶ୍ନର ଉତ୍ତର ପ୍ରତ୍ୟେକକୁ ୫୦୦ଟି ଶବ୍ଦ ମଧ୍ୟରେ ପ୍ରଦାନ କର।

(a)   Explain British Colonial rule and its impact of Indian economy.
[7

ବ୍ରିଟିଶ୍ ଔପନିବେଶିକ ଶାସନ ଓ ଭାରତୀୟ ଅର୍ଥନୀତି ଉପରେ ଏହାର ପ୍ରଭାବ ବର୍ଣ୍ଣନା କର।

(b)   Mention the basic features of Indian economy.   [7

ଭାରତୀୟ ଅର୍ଥନୀତିର ମୌଳିକ ବୈଶିଷ୍ଟ୍ୟ ଉଲ୍ଲେଖ କର।

(c)   Explain the National Population Policy, 2000.   [7

ଜାତୀୟ ଜନସଂଖ୍ୟା ନୀତି–୨୦୦୦ ବର୍ଣ୍ଣନା କର।

(d)   What are the causes of low productivity in Indian agricul-
ture ?
[7

ଭାରତୀୟ କୃଷିର ସ୍ୱଳ୍ପ ଉତ୍ପାଦନଶୀଳତାର କାରଣଗୁଡ଼ିକ କଣ ?

(e)   Explain the impact of green revolution on Indian economy.
[7

ଭାରତୀୟ ଅର୍ଥନୀତି ଉପରେ ସବୁଜ ବିପ୍ଳବର ପ୍ରଭାବ ବର୍ଣ୍ଣନା କର।

(f) Explain the role of industries in economic development. [7

ଅର୍ଥନୈତିକ ଉନ୍ନୟନରେ ଶିଳ୍ପର ଗୁରୁତ୍ୱ ବର୍ଣ୍ଣନା କର।

(g) Explain the factors determining growth of service sector of India. [7

ଭାରତୀୟ ସେବାକ୍ଷେତ୍ରରେ ଅଭିବୃଦ୍ଧି ନିର୍ଦ୍ଧାରଣ କରୁଥିବା ଉପାଦାନ ସମୂହ ବର୍ଣ୍ଣନା କର।

(h) Explain the features of Industrial Policy, 1956. [7

ଶିଳ୍ପନୀତି ୧ ୯ ୫ ୬ର ବୈଶିଷ୍ଟ୍ୟ ବର୍ଣ୍ଣନା କର।