63/1 (SEM–5) CC12/ECOHC5126

2023

ECONOMICS

Paper : ECOHC5126

(Development Economics–I)

Full Marks : 80

Pass Marks : 32

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer : *(any six)*

$1 \times 6 = 6$

(a) Which of the following is a non-economic factor of growth ?

   (i) Ideal legislative structure

   (ii) Collection of natural resources

   (iii) Growth of overall population in course of time

   (iv) Capital accumulation

Contd.

(b) What is the underlying concept of economic development ?

   (i) It is just another synonymous term with economic growth

   (ii) It is obtained by tracking modifications in output allocation and financial structure

   (iii) Economic development is sustainable improvement in GNP

   (iv) Improving the livelihood of urban people

(c) Which of the following statements is true about human capital ?

   (i) Human resource and human capital are related to each other

   (ii) Human development and human capital are related to each other

   (iii) Both (i) and (ii) are correct

   (iv) Both (i) and (ii) are incorrect

(d) Which of the following is a major source of human capital formation in India ?

   (i) Expenditure on on-the-job training

   (ii) Expenditure on education

   (iii) Both (i) and (ii) are correct

   (iv) Both (i) and (ii) are incorrect

(e) Which of the following about strategy of imbalance growth is right ?

   (i) Deliberate imbalance in favour of some sectors

   (ii) Simultaneous investment in all sectors

   (iii) Deliberate balance in favour of some sectors

   (iv) simultaneous development in all sectors

(f) The theory of big push is based on which of the following ideas ?

   (i) Internal economies of scale

   (ii) Small amount of investment

   (iii) External economies of scale

   (iv) Unbalanced growth

(g) To boost economic growth, the government is most likely to—

   (i) increase the rate of interest

   (ii) increase the rate of taxation

   (iii) provide incentives to investment

   (iv) provide incentives to save

(c) Explain the main causes of poverty in India.

(d) Discuss briefly the big push theory of economic development by Rosenstien-Rodan.

(e) Discuss briefly the population composition.

(f) What are the advantages and disadvantages of labour intensive techniques of production?

(g) Capital occupies an important role in economic development of a nation. Discuss.

(h) Explain briefly the importance of human capital formation in economic development.

(i) Establish the relationship between poverty and economic development.

(j) Differentiate between capital and labour intensive techniques of production for economic development.

4. Answer the following questions : *(any two)*
   10×2=20

(a) Explain elaborately the impact of population growth in economic development.

(b) Critically examine the Lewis model of unlimited supply of labour.

(c) Explain the concept of vicious circle of poverty form demand and supply side.

(d) Discuss the role of labour capital and technology in economic development.

5. Answer the following questions : *(any one)*
   14×1=14

(a) Explain clearly the differences between economic development and economic growth. Also discuss the main indicators of economic development.
   8+6=14

(b) Compare and contrast between the theory of balanced and unbalanced growth.
   7+7=14

(c) Define Population. How are population and economic development related? Mention some of the problems of over-population in an economy.
   2+5+7=14

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63/1 (SEM–5) DSE1/ECOHE5016
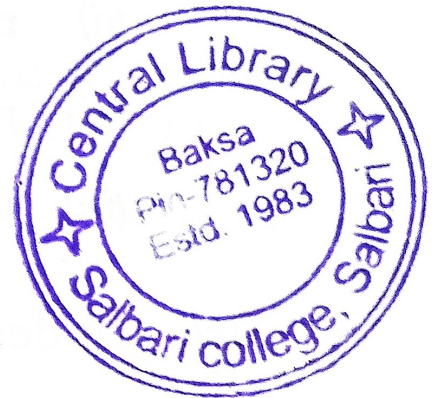
2023

ECONOMICS

Paper : ECOHE5016

(Public Finance)

Full Marks : 80

Pass Marks : 32

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer from the following : **(any six)**   1×6=6

   (a) Which of the following is non-revenue receipt ?

      (i) taxes on property

      (ii) commercial revenues

      (iii) grants and gifts

      (iv) loans from abroad

(b) Import duty is a

   (i)   tax revenue

   (ii) non-tax revenue

   (iii) non-revenue receipt

   (iv) income tax

(c) Under progressive taxation, tax liability

   (i)   decreases more than in proportion to decrease in income

   (ii) increases more than in proportion to increase in income

   (iii) increases with the decrease in income

   (iv) neither increases nor decreases

(d) Which of the following is not the characteristic of public goods ?

   (i)   Non-Excludability

   (ii) Non-rivalry

   (iii) Partial Excludability

   (iv) Equal consumption by all

(e) Deficit budget occurs when

   (i)   government expenditure is less than its revenue

   (ii) government expenditure exceeds its revenue

   (iii) government expenditure is equal to its revenue

   (iv) government does not make expenditure

(f) In a federation, horizontal equity refers to

   (i)   equal treatment of unequal

   (ii) unequal treatment of unequal

   (iii) Both (i) and (ii)

   (iv) effects of taxation

(g) The problem of externality is associated with

   (i)   private goods

   (ii) merit goods

   (iii) poverty

   (iv) public goods

(h) Which of the following is not the method of redemption of public debt ?

  (i) refunding

  (ii) redemption of external debt

  (iii) year-wise partial repayment

  (iv) imposition of heavy import duty

(i) Laissez-faire in economics implies

  (i) minimal government intervention in economic affairs

  (ii) maximum government intervention in economic affairs

  (iii) no government intervention in economic affairs

  (iv) total control of economic affairs by the government

(j) Customs duties are the taxes on

  (i) internally traded goods

  (ii) internationally traded goods

  (iii) both internally and internationally traded goods

  (iv) consumption goods

2. Answer the following questions : *(any five)*

  $2 \times 5 = 10$

  (a) What is public debt management?

  (b) What is internal public debt ?

  (c) What is non-excludability ?

  (d) Mention *any two* models for efficient allocation of public goods.

  (e) What do you mean by incidence of a tax ?

  (f) What is fiscal federalism ?

  (g) Write *two* merits of indirect tax.

3. Answer the following questions : *(any six)*

  $5 \times 6 = 30$

  (a) Write the characteristics of a good tax system.

  (b) Distinguish between taxes and regulations.

  (c) Write the causes of growing public expenditures.

  (d) Write a short note on Coase theorem.

(e) Point out the merits and demerits of progressive taxation.

(f) Distinguish between incremental budget and zero-base budget.

(g) Write the principles of division of financial resources between the Central and the State governments.

(h) Write a note on benefit principles of taxation.

(i) Distinguish between pure and impure public goods.

(j) Explain the different sources of public debt.

4. Answer the following questions : **(any two)**
   10×2=20

(a) Explain the role of public finance in a developing country.

(b) Discuss the different methods of redemption of public debt.

(c) Explain the effects of taxation on production and distribution.

(d) State and explain the canon of taxation given by Adam Smith.

5. Answer the following questions : **(any one)**
   14×1=14

(a) What is externality ? Explain the problems of externalities.

(b) Discuss the relative superiority of direct and indirect taxes.

(c) Explain the role of public debt. Discuss the various sources of public debt.

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63/1 (SEM–5) GE1/ECORG 5016

2023

ECONOMICS

Paper : ECORG 5016

(Principles of Microeconomics–I)

Full Marks : 80

Pass Marks : 32

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer **any six** from the following questions : 1×6=6

   তলৰ প্ৰশ্নবোৰৰ *যিকোনো ছয়টাৰ* উত্তৰ লিখা ঃ

   Choose the correct option :

   শুদ্ধ বিকল্পটো বাছি উলিওৱা ঃ

   (a) The problem of 'Scarcity and Choice' mainly give rise to

   'দুষ্প্ৰাপ্যতা আৰু নিৰ্বাচন'ৰ সমস্যাই প্ৰধানকৈ সৃষ্টি কৰে

   (i) problems of underdevelopment

   অনুন্নয়নৰ সমস্যা

   Contd.

(ii)   economic problems

অর্থনৈতিক সমস্যা

(iii)   non-economic problems

অনা-অর্থনৈতিক সমস্যা

(iv)   None of the above

ওপৰৰ এটাও নহয়

(b)   If the indifference curve is a downward sloping straight line, it means that the goods are

নিৰপেক্ষ ৰেখাডাল যদি তললৈ হেলনীয়া সৰল ৰেখা হয়, তেতিয়া ই বুজায় যে দ্ৰব্যসমূহ

(i)   perfect substitutes

পূৰ্ণ বিকল্প

(ii)   perfect complementaries

পূৰ্ণ পৰিপূৰক

(iii)   used in equal amount

সমপৰিমাণত ব্যৱহৃত

(iv)   None of the above

ওপৰৰ এটাও নহয়

(c)   Fixed cost is found

স্থিৰ ব্যয় পোৱা যায়

(i)   in the long run only

কেৱল দীৰ্ঘকালত

(ii)   in the short run only

কেৱল হ্ৰস্বকালত

(iii)   Both in the short run and in the long run

হ্ৰস্বকাল আৰু দীৰ্ঘকাল উভয়তে

(iv)   None of the above

ওপৰৰ এটাও নহয়

(d)   A linearly homogeneous production function depicts

সৰলৰৈখিক সমগোত্ৰীয় উৎপাদন ফলন এটাই সূচায়

(i)   increasing returns to scale

ক্ৰমবৰ্ধমান মাত্ৰাৰ প্ৰতিদান

(ii)   decreasing returns to scale

ক্ৰমহ্ৰাসমান মাত্ৰাৰ প্ৰতিদান

(iii)   constant returns to scale

সমহাৰৰ মাত্ৰাৰ প্ৰতিদান

(iv)   All of the above

ওপৰৰ আটাইকেইটা

(e) At the lowest point of the AC curve

গড় ব্যয় (AC) ৰেখাৰ নিম্নতম বিন্দুত

   (i)   AC is greater than MC

        গড় ব্যয় প্ৰান্তিক ব্যয়তকৈ বেছি হয়

   (ii) AC is less than MC

        গড় ব্যয় প্ৰান্তিক ব্যয়তকৈ কম হয়

   (iii) AC is equal to MC

        গড় ব্যয় প্ৰান্তিক ব্যয়ৰ সমান হয়

   (iv) AC is double the MC

        গড় ব্যয় প্ৰান্তিক ব্যয়ৰ দুগুণ হয়

(f) If TC = TFC + TVC, then AC =

যদি TC = TFC + TVC হয়, তেন্তে AC =

   (i)   TC/Q

        সৰ্বমুঠ ব্যয়/সামগ্ৰীৰ পৰিমাণ

   (ii) AFC + AVC

        গড় স্থায়ী ব্যয় + গড় পৰিবৰ্তনশীল ব্যয়

   (iii) AFC/Q

        গড় স্থায়ী ব্যয়/সামগ্ৰীৰ পৰিমাণ

   (iv) None of the above

        ওপৰৰ এটাও নহয়

(g) An indifference curve is generally

নিৰপেক্ষ ৰেখা এডাল সাধাৰণতে

   (i)   upward sloping

        ওপৰফালে হেলনীয়া

   (ii) downward sloping and convex to the origin

        তলৰফালে হেলনীয়া আৰু কেন্দ্ৰৰ ফালে উত্তল

   (iii) downward sloping and concave to the origin

        তলৰফালে হেলনীয়া আৰু কেন্দ্ৰৰ ফালে অৱতল

   (iv) vertical to the y axis

        y অক্ষৰ সৈতে উলম্ব

(h) Giffen goods are a type of _____ .

গিফেন দ্ৰব্য হল _____ ।

   (i)   inferior goods

        নিকৃষ্ট দ্ৰব্য

   (ii) luxury goods

        বিলাসী দ্ৰব্য

   (iii) normal goods

        স্বাভাবিক দ্ৰব্য

   (iv) complementary goods

        পৰিপূৰক দ্ৰব্য

(i) Marginal Rate of Technical Susbtitution is associated with—

প্ৰযুক্তিগত প্ৰতিস্থাপনৰ প্ৰান্তিক হাৰ _____ সৈতে সংযুক্ত।

   (i) utility function
উপযোগীতা ফলনৰ

   (ii) production function
উৎপাদন ফলনৰ

   (iii) demand function
চাহিদা ফলনৰ

   (iv) supply function
যোগান ফলনৰ

(j) Indifference curve is used to study

নিৰপেক্ষ ৰেখাৰ সহায়ত _____ অধ্যয়ন কৰা হয়।

   (i) consumer preference
উপভোক্তাৰ পছন্দ

   (ii) purchase demand
ক্ৰয় চাহিদা

   (iii) consumer behaviour
উপভোক্তাৰ আচৰণ

   (iv) producer preference
উৎপাদকৰ পছন্দ

2. Answer **any five** from the following questions : 2×5=10

তলৰ প্ৰশ্নবোৰৰ *যিকোনো পাঁচটাৰ* উত্তৰ লিখা :

(a) What is static equilibrium ?
স্থৈতিক ভাৰসাম্যতা কি?

(b) What is income effect ?
আয় বিপাক কি?

(c) Draw the Engel curve for an inferior good.
এটা নিকৃষ্ট দ্ৰব্যৰ বাবে এডাল এঙ্গেল ৰেখা অংকন কৰা।

(d) What is factor elasticity of substitution ?
উপাদান প্ৰতিকল্পনৰ স্থিতিস্থাপকতা কি?

(e) In economics, what is meant by equilibrium ? Give an example of static equilibrium.
অৰ্থবিজ্ঞানত ভাৰসাম্যতা মানে কি? স্থৈতিক ভাৰসাম্যতাৰ এটা উদাহৰণ দিয়া।

(f) What is an Isocost line ?
সমব্যয় ৰেখা কি?

(g) Illustrate the slope of a production possibility curve.

উৎপাদন সম্ভাৱনা ৰেখা এডালৰ ঢাল ব্যাখ্যা কৰা।

3. Answer *any six* from the following questions :   5×6=30

তলৰ প্ৰশ্নবোৰৰ *যিকোনো ছয়টাৰ* উত্তৰ লিখা ঃ

(a) Explain the concept of consumer's surplus.

ভোক্তাৰ উদ্বৃত্তৰ ধাৰণাটো ব্যাখ্যা কৰা।

(b) Distinguish between static and dynamic analyses of Economics.

অৰ্থনীতিৰ স্থৈতিক আৰু গতিশীল বিশ্লেষণৰ মাজত পাৰ্থক্য দেখুওৱা।

(c) Explain briefly the relationship between Average Cost (AC) and Marginal Cost (MC).

গড় ব্যয় আৰু প্ৰান্তিক ব্যয়ৰ সম্পৰ্ক চমুকৈ ব্যাখ্যা কৰা।

(d) Why cannot two indifference curves intersect ? Explain.

দুডাল নিৰপেক্ষ ৰেখাই কিয় কটাকটি কৰিব নোৱাৰে? ব্যাখ্যা কৰা।

(e) What are the different types of returns to scale ? Explain.

বিভিন্ন প্ৰকাৰৰ মাত্ৰাৰ প্ৰতিদানসমূহ কি কি? ব্যাখ্যা কৰা।

(f) Draw the TFC, TVC, AVC and AFC curves.

মুঠ স্থিৰ ব্যয়, মুঠ পৰিবৰ্তনশীল ব্যয়, গড় পৰিবৰ্তনশীল ব্যয় আৰু গড় স্থিৰ ব্যয় ৰেখা অংকন কৰা।

(g) What is an Isoquant ? Explain the properties of an isoquant.

সমউৎপাদন ৰেখা কি? ইয়াৰ বৈশিষ্ট্যসমূহ বৰ্ণনা কৰা।

(h) What is Engel's curve ? Derive an Engel curve for necessary goods.

এঞ্জেলৰ ৰেখা কি? অত্যাৱশ্যকীয় সামগ্ৰীৰ ক্ষেত্ৰত এডাল এঞ্জেলৰ ৰেখা অংকন কৰা।

(i) Write on price effect and substitution effect.

দৰ বিপাক আৰু প্ৰতিকল্প বিপাকৰ ওপৰত লিখা।

(j) Distinguish between cardinal utility and ordinal utility.

সংখ্যাবাচক উপযোগিতা আৰু ক্ৰমবাচক উপযোগিতাৰ মাজত পাৰ্থক্য নিৰূপণ কৰা।

4. Answer **any two** questions from the following : 10×2=20

তলৰ প্ৰশ্নবোৰৰ *যিকোনো দুটাৰ* উত্তৰ লিখা :

(a) Explain constant returns to scale. Distinguish between economies and diseconomies of scale.

মাত্ৰাৰ স্থিৰ প্ৰতিদান ব্যাখ্যা কৰা। মাত্ৰা উৎপাদনৰ মিতব্যয়িতা আৰু অমিতব্যয়িতাৰ পাৰ্থক্য দেখুওৱা।

(b) Discuss some basic market models indicating whether they work through the market or interfere with the market.

বজাৰৰ যোগেদি কাৰ্য্যসম্পাদন কৰে নে বজাৰৰ ওপৰত হস্তক্ষেপ কৰে দেখুৱাই কিছুমান বুনিয়াদী বজাৰ আহি আলোচনা কৰা।

(c) Discuss the properties of indifference curves with diagrams.

চিত্ৰ সহায়ত নিৰপেক্ষ ৰেখাৰ বৈশিষ্ট্যসমূহ আলোচনা কৰা।

(d) Discuss the law of variable proportions. In which stage will the producer decide to produce?

পৰিবৰ্তনশীল অনুপাত বিধিটো আলোচনা কৰা। উৎপাদনৰ কোনটো পৰ্যায়ত উৎপাদনকাৰীয়ে উৎপাদন কৰিবলৈ সিদ্ধান্ত ল'ব?

5. Answer **any one** from the following questions : 14×1=14

তলৰ প্ৰশ্নবোৰৰ *যিকোনো এটাৰ* উত্তৰ লিখা :

(a) Discuss the derivation of production possibility curve from contract curves.

সংযোগী ৰেখাৰ পৰা কিদৰে উৎপাদন সম্ভাৱনা ৰেখা উলিওৱা হয়, আলোচনা কৰা।

(b) How 'Scarcity and Choice' creates economic problems? Explain.

'দুষ্প্ৰাপ্যতা আৰু পছন্দ' কেনেকৈ অৰ্থনৈতিক সমস্যাৰ সৃষ্টি কৰে? ব্যাখ্যা কৰা।

(c) What is least cost combination of inputs? Discuss how least cost combination of inputs is attained with the help of isoquants and isocost lines.

ন্যূনতম ব্যয়সম্পন্ন সংযোগ কি? সমউৎপাদন ৰেখা আৰু সমব্যয় ৰেখাৰ সহায়ত কিদৰে ন্যূনতম ব্যয়সম্পন্ন সংযোগ লাভ কৰা হয়, আলোচনা কৰা।

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ECONOMICS

Paper : ECOHC6136
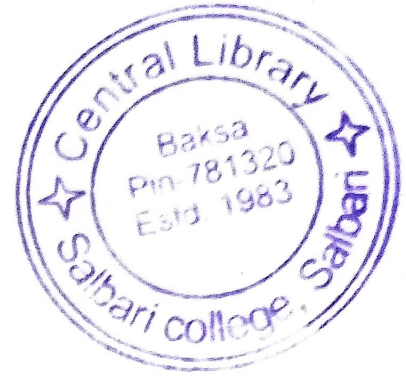
(Indian Economy—II)

Full Marks : 80

Pass Marks : 32

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the correct answer (any *six*) : 1×6=6

   (a) Which of the following is inconsistent with the other?

      (i) A budget deficit

      (ii) A reduction in taxation

      (iii) A reduction in government expenditure

      (iv) A reduction in spending on consumer goods

(b) The largest food crop of India is

(i) maize   (ii) rice

(iii) wheat   (iv) gram

(c) The oldest large-scale industry in India is

(i) Iron and Steel

(ii) Jute

(iii) Cotton Textiles

(iv) Cement

(d) The main feature(s) of Indian agriculture is/are

(i) disguised unemployment

(ii) high productivity and large farmers

(iii) gamble in the hands of monsoon

(iv) Both (i) and (iii)

(e) Excise duty is

(i) tax levied on certain goods produced and consumed in the country

(ii) tax levied on certain goods imported into the country

(iii) tax levied on certain goods exported from the country

(iv) All of the above

     (Continued

(f) What is/are the measure(s) adopted by Government of India to unearth black money?

(i) Demonetization and voluntary disclosure scheme

(ii) Special bearer bond

(iii) Foreign remittance scheme and gold bond scheme

(iv) All of the above

(g) In Budget, 2022, Government aims to reduce the fiscal deficit to below _____ of GDP by 2025–26.

(i) 2%

(ii) 3%

(iii) 4·5%

(iv) 6·4%

(h) In India, which of the following organizations takes care of the agriculture and rural development credit needs?

(i) IDBI

(ii) NABARD

(iii) ICAR

(iv) FCI

     (Turn Ov

(i) Indian labour laws broadly include

   (i) working hours and conditions of service

   (ii) health and safety

   (iii) equality, minimum wages and social security benefits

   (iv) All of the above

(j) Which one of the following foreign investments is not allowed in India?

   (i) Gambling and Betting

   (ii) Pharmaceuticals

   (iii) Automobiles

   (iv) Textiles

2. Answer any *five* of the following questions :

$$2 \times 5 = 10$$

(a) Write two basic objectives of trade and investment policy in India.

(b) Mention any two impacts of the monetary policy in India.

(c) Point out two basic goals of agricultural price policy in India.

(d) What is new technology in Indian agriculture?

(e) State any two objectives of foreign investment.

(f) Mention any two factors affecting capital formation in Indian agriculture.

(g) Mention any two causes of growing service in India.

3. Answer any *six* of the following questions :

$$5 \times 6 = 30$$

(a) Briefly explain the role of fiscal policy in India.

(b) Discuss the contribution of foreign investments in the fields of investments and trade in India.

(c) Briefly state the objectives of financial sector reforms in India.

(d) Write a note on agricultural productivity in India in comparison with other countries.

(e) What is the role of MSME in Indian economy?

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(f) Briefly point out the causes of poor performances of public sector enterprises in India.

(g) Explain the shortcomings of fiscal policy of India.

(h) Explain how agrarian structure is related to poverty and inequality in India.

(i) Discuss briefly the main features of agricultural price policy in India.

(j) What are services? What is its recent contribution in Indian economy? Mention three important services in India.

4. Answer any *two* of the following questions :

10×2=20

(a) Explain the major challenges for macro-economic policy in India in the context of fiscal consolidation and external capital surge.

(b) Explain the causes of low productivity in Indian agriculture.

(*Continued*

(c) Show the industrial growth trend in India in recent time. Briefly state the changes in the structural composition of industries in India.

(d) Explain the role and importance of services in the growth of Indian economy.

5. Answer any *one* of the following questions : 14

(a) Explain the role of monetary policy in a developing economy like India.

(b) What is procurement in agriculture? What are the major challenges in the procurement of agriculture products in India?

(c) Discuss the role of small-scale industries in India. Suggest appropriate measures to remove the difficulties faced by small-scale industries in India.

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ECONOMICS

Paper : ECOHC2046

(Mathematical Methods for Economics—I)

Full Marks : 80

Pass Marks : 32

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the correct answer of the following
(any *six*) :   1×6=6

   (a) If $U = \{5, 6, 7, 8, 9\}$ and $A = \{5, 6\}$, then
        complement of set A, i.e., (A^c) is

        (i) $\{5, 6, 7, 8\}$

        (ii) $\{5, 6\}$

        (iii) $\{7, 8, 9\}$

        (iv) $\{\ \ \}$

   (b) Under the identity law of set theory
        $A \cap \phi =$

        (i) A^c

        (ii) ϕ

        (iii) A

        (iv) 0

(Turn Over)

(c) $\int \frac{1}{2} dx$ gives

    (i) $\frac{1}{2} + C$

    (ii) $\frac{1}{2}x + C$

    (iii) 0

    (iv) None of the above

(d) If $y = f(x) = b$, then $\lim\limits_{x \to M} b$ is equal to

    (i) b

    (ii) M

    (iii) ∞

    (iv) 0

(e) What is the Cartesian product of $A \times B$ if $A = \{x, y\}$ and $B = \{1, 2\}$?

    (i) $\{(x, 1), (y, 2)\}$

    (ii) $\{(x, 1), (x, 2), (y, 1), (y, 2)\}$

    (iii) $\{(1, x), (2, x), (1, y), (2, y)\}$

    (iv) $\{(y, 1), (y, 2), (x, 1), (x, 2)\}$

(f) When the slope of average cost (AC) is zero, i.e., $\frac{d}{dQ}(AC) = 0$, then

    (i) $MC < AC$

    (ii) $MC > AC$

    (iii) $MC = AC$

    (iv) None of the above

(g) If $y = f(x) = 10^x$, then $\frac{dy}{dx}$ gives

    (i) $\frac{1}{10^x}$

    (ii) $10^x \log_e 10$

    (iii) $x \log_e 10$

    (iv) 0

(h) The necessary and sufficient conditions for minimization of the function $y = f(x)$ is

    (i) $\frac{dy}{dx} = 0$ and $\frac{d^2x}{dy^2} > 0$

    (ii) $\frac{dy}{dx} = 0$ and $\frac{d^2x}{dy^2} < 0$

    (iii) $\frac{dy}{dx} = 0$ and $\frac{d^2x}{dy^2} = 0$

    (iv) None of the above

(i) $\int a^x dx$ gives

    (i) $\frac{a}{\log_e a} + C$

    (ii) $\frac{a^x}{\log_e a} + C$

    (iii) $\frac{a}{a \log_e a} + C$

    (iv) None of the above

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(j) Which one of the following is an irrational number?

(i) $\dfrac{4}{5}$

(ii) $2 \cdot 3123457...$

(iii) $1 \cdot 404040...$

(iv) 1.14

2. Answer any *five* of the following questions :

$2 \times 5 = 10$

(a) Evaluate :

$$\lim_{x \to 1} \frac{x^2 + 7x - 8}{(x-1)}$$

(b) Evaluate $\int_{-1}^{3} (2x^2 + 5)\, dx$.

(c) Define exponential function.

(d) If $A = \{1, 2, 3, 4\}$ and $B = \{3, 4, 5, 6\}$, represent $A \cap B$ in the Venn diagram.

(e) Define point of inflection.

(f) Find the second-order derivative of the function

$$f(x) = 15x^3 - 6x^2 + 30x + 20$$

(g) The average revenue (AR) function is given by $AR = 100 - 3Q$, find the elasticity of demand when $Q = 5$.

3. Answer any *six* of the following questions :

$5 \times 6 = 30$

(a) Find $\dfrac{dy}{dx}$ of the following functions : $2+3=5$

(i) $y = f(x) = \dfrac{A}{\sqrt{x}}$

(ii) $y = f(x) = (7x^2 + 2x - 20)^7$

(b) Given the consumption function

$$C = 500 - \frac{2000}{5 + Y}$$

where Y is income, find marginal propensity to consume (MPC) when $Y = 45$. Also find marginal propensity of save (MPS).

$3+2=5$

(c) Find the equilibrium price $(\overline{P})$ and equilibrium quantity $(\overline{Q})$ from the given simple market model :

$$Q_d = a - bP$$
$$Q_s = -c + dP$$
$$Q_d = Q_s$$

(d) The total cost function of a firm is given by

$$TC = 200Q - 5Q^2 + 0 \cdot 05Q^3$$

where Q is the quantity produced. Find out the output at which marginal cost (MC) is equal to the average cost (AC).

(e) Find the extreme value of the function
$$y = 2x^2 - 24x + 10$$

(f) Examine the continuity of the function
$$f(x) = x^2 - 2x + 3, \quad \text{when } x < 1$$
$$= 1, \quad \text{when } x = 1$$
$$= 2x^2 - 3x + 5, \quad \text{when } x < 1$$

(g) Integrate the following :   2+3=5
$$\text{(i)} \int (2ax + 10\sqrt{x} + e^x + 50)\, dx$$
$$\text{(ii)} \int \frac{2x+3}{x^2+3x}\, dx$$

(h) Define the concepts of quasi-convex and quasi-concave.

(i) A firm's production is given by
$$Q = f(L) = -\frac{2}{3}L^3 + 10L^2$$

where L is the labour employed. Show that diminishing marginal product of labour operates when employment of labour is 6.

(j) The total cost function of a firm is given by
$$C(Q) = 0 \cdot 005Q^3 - 0 \cdot 02Q^2 + 30Q + 3000$$

Find—

(i) average cost (AC) when $Q = 10$;

(ii) marginal cost (MC) when $Q = 10$.   2+3=5

4. Answer any *two* of the following questions :
                 10×2=20

(a) Derive the mathematical relationship between average revenue, marginal revenue and price elasticity of demand using differentiation.

(b) (i) Given the demand function, $Q = a - bP$, find the total revenue function.

(ii) If the consumer's demand function is given by
$$Q = f(P) = \sqrt{(60 - 2P)}$$

find the consumer's surplus when market price $P = 12$.   3+7=10

(c) State and prove the quotient rule of differentiation.   3+7=10

(d) For the market model
$$D = a - bP$$
$$S = -c + d(P - t)$$
$$D = S$$

where D, S, P and t denote demand, supply, price and rate of sale tax or excise duty. Find the optimal tax rate which maximizes tax revenue.

5. Answer any *one* of the following questions :   14

  (a) In a Cobweb model

$$Q_{dt} = a - bP_t \quad (a,\ b > 0)$$
$$Q_{st} = -c + dP_{t-1} \quad (c,\ d > 0)$$
$$Q_{dt} = Q_{st}$$

Obtain the time path of price *P* and also analyze the three situations arising depending upon the slopes of demand and supply curves.   8+6=14

  (b) A monopolist has the following total revenue (TR) and total cost (TC) functions :

$$TR = R(Q) = 30Q - Q^2$$
$$TC = C(Q) = Q^3 - 15Q^2 + 10Q + 100$$

Find—

    (i) profit maximizing output;

    (ii) equilibrium price;

    (iii) point elasticity of demand at equilibrium level of output. 10+2+2=14

  (c) (i) The marginal revenue and total cost functions of a monopolist are

$$MR = 20 - 2Q \text{ and } TC = Q^2 + 8Q + 2$$

Find the profit maximizing output.

    (ii) Given the Cobb-Douglas production function $Q = AL^{\alpha}K^{1-\alpha}$, find the marginal physical productivity of labour and capital respectively.
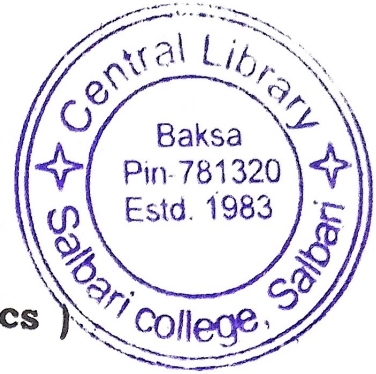
                             6+4+4=14

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63/1 (SEM–6) DSE3/ECOHE6036

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ECONOMICS

Paper : ECOHE6036

(International Economics)

Full Marks : 80

Pass Marks : 32

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Choose the correct answer of the following (any *six*) :

   1×6=6

   (a) Economic relations of countries are fundamentally governed by their

   (i) economic independence

   (ii) economic inter-dependence

   (iii) exports and imports of goods

   (iv) economic dependence

   (b) According to Ricardo, the basis of international trade is

   (i) comparative cost difference

   (ii) absolute cost difference

   (iii) homogeneous production

   (iv) equal cost difference

(c) The Heckscher-Ohlin theory of international trade is based on

(i) factor endowments

(ii) relative factor intensity

(iii) specialization of labour

(iv) Both (i) and (ii)

(d) The ad valorem tariff is a duty levied

(i) as a fixed percentage on the value of traded commodity

(ii) as a fixed amount of money per physical unit of commodity imported or exported

(iii) according to weight of the commodity

(iv) as an import duty

(e) The existence of factor elasticity reversal can be explained in terms of

(i) elasticity of substitution

(ii) price elasticity

(iii) import substitution

(iv) elasticity of demand

(f) The policy of protection is strongly supported in LDCs for

(i) increase in government revenue

(ii) creation of external economies

(iii) inflow of foreign capital

(iv) All of the above

(g) Protective tariff leads to

(i) improvement in terms of trade

(ii) worsening in terms of trade

(iii) BOP deficit

(iv) no change in terms of trade

(h) The Bretton Woods system broke down in

(i) 1971

(ii) 1974

(iii) 1981

(iv) 1990

(i) A specified exchange rate under the fixed exchange rate is determined by

(i) demand and supply of goods

(ii) quantities of exports and imports

(iii) monetary authority

(iv) foreign exchange reserve

(i) The capital intensity of a good is measured by the ratio of

    (i) qualitative differences in factors

    (ii) capital to labour

    (iii) labour to capital

    (iv) quantitative differences in factors

2. Answer any *five* of the following questions :
                                          2×5=10

  (a) How does comparative cost advantage theory measure gain from international trade?

  (b) What is reciprocal demand?

  (c) What do you mean by factor intensity?

  (d) How does free international movement of factors affect the prices of factors?

  (e) What is meant by protection?

  (f) What is the difference between specific and ad valorem duties?

  (g) Write two merits of flexible exchange rate.

3. Answer any *six* of the following questions :
                                        5×6=30

  (a) Point out the importance of international trade for a country.

  (b) How would you determine the gains from trade on the basis of absolute cost differences?

  (c) State the main features of multinational corporations.

  (d) What are the arguments against free trade?

  (e) What were the causes of financial crisis in India during 2007–09?

  (f) Briefly explain the effects of import quotas for the importing country.

  (g) What are the main features of Bretton Woods system?

  (h) What were the factors that led to the breakdown of the Bretton Woods system?

  (i) How is actual exchange rate determined by the offer curves?

  (j) Write the main features of financial globalization.

4. Answer any *two* of the following questions :
                                        10×2=20

  (a) What is meant by tariff? Explain the different types of tariffs.   2+8=10

(b) What is flexible exchange rate? Give your arguments for and against flexible exchange rates. 2+8=10

(c) Discuss the positive and negative effects of financial globalization in Indian economy.

(d) What were the factors that led to recession in India during 2007–09? What was its impact on the Indian economy? 4+6=10

5. Answer any *one* of the following questions : 14

(a) Explain the Heckscher-Ohlin theory of international trade. In what respects it is superior to the classical theory?

10+4=14

(b) What do you mean by multinational corporations? Discuss their role in the developing countries. 2+12=14

(c) Examine the infant industry argument for protection as a means to industrialization of developing countries.

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