Undergraduate Examination, 2023 Semester-II / Semester-IV (For BFA Only) (CBCS) Ability Enhancing Compulsory Course (AECC-2) Environmental Studies

(For Regular and Back Candidates)

Time: 2 Hours

I. Choose the correct answer:

Full Marks: 25

 $0.5 \times 20 = 10$

Questions are of value as indicated in the margin

The answer may be attempted either in English, Bengali or Hindi

1. Which of the following is a non-renewable source of energy? a) Hydel b) Solar c) Biogas d) None of the above
2. Black foot disease is caused by: a) Mercury b) Lead c) Arsenic d) Cadmium
3. Project Crocodile was launched in the year: a)1975 b) 1983 c) 1992 d) 1974
4. Bhopal Gas tragedy occurred on: a) 20^{th} November 1984 b) $25-26^{th}$ April, 1986 c) $2-3^{rd}$ November 1984 d) 4^{th} December 1984
5. Environmental Protection Act was enacted in the year: a) 1972 b) 1974 c) 1986 d) 1981
was enacted to protect the world from Ozone layer depletion. b) Nagoya Protocol c) Montreal Protocol d) Stockholm Protocol
7. The unit to measure noise level is: a) Dobson b) Decibel c) Richter d) None of these
8. World Environmental Day is celebrated on: a) June 5 b) July 11 c) August 6 d) September 16
9. Kashmir stag or Hangul is conserved in the National Park. a) Nanda Devi b) Dachigam c) Loktak d) All of the above
10. Which of the following site(s) is/are UN World Heritage Convention that supports biodiversity rich area? a) Manas b) Kaziranga c) Bharatpur d) All of these
11. Discharge of warm water into river is called: (a) Water pollution (b) River pollution (c) Thermal pollution (d) All of them P.T.O.

12.Incineration is generally used for the management of: (a) Liquid waste (b) Gaseous waste (c) Solid waste (d) All of them
13. In which state Gir National Park is situated? a) Madhya Pradesh b) Rajasthan c) Gujrat d) Odisha
14. 'Chipko movement' was started by: (a) Anandi Devi (b) Mahatma Gandhi (c) Sita Devi (d) Sunderlal Bahuguna
15. The drug for Malaria is extracted from the plant of:a) Cinchona b) Sarpagandha c) Datura d) None of the above
16. Which one of the following is a type of grassland in India?(a) Himalayan pastures(b) Shola(c) Terai(d) All of these
17. Which elements is associated with nuclear power generation?(a) Platinum (b) Aluminium (c) Uranium (d) Radium
18. The advantage of rainwater harvesting is: (a) Increase in groundwater level (b) Reduction of soil erosion (c) Control of flood (d) All of the above
19. Wildlife Institute of India is located at: a) Dehradun b) New Delhi c) Kolkata d) Patna
20. Jhum cultivation occurs in region of India. a) North East India b) Deccan plateau c) Nilgiri d) None of the above
 II. Answer the following: Write the full form of WHO. Write the full form of CPCB. Who is called the father of green revolution in India? Name two invasive species in India? Mention the name of the mud house built by Rabindranath Tagore at Uttarayan?
 III. Write short notes on any five of the following. 1. Mention four national parks in eastern India. 2. Mention four methods to control overpopulation. 3. Mention four methods for solid waste management. 4. Name two waterborne diseases. 5. What are the problems of ozone layer depletion? 6. Draw the foodweb of a grassland ecosystem. 7. Write any four greenhouse gases. 8. What are food chain and food web? 9. What are the major causes of deforestation? 10. Mention four methods of water conservation.

Undergraduate Examination, 2023 Semester-II / Semester-IV (For BFA Only) (CBCS) Ability Enhancing Compulsory Course (AECC-2) Environmental Studies

(For Regular and Back Candidates)

Time: 2 Hours

Full Marks: 25

উত্তরপত্রটি ইংরাজী, বাংলা অথবা হিন্দিতে লেখো। দক্ষিণ প্রান্তস্থ সংখ্যা প্রশ্নের মান নির্দেশক

সঠিক উত্তরটি নির্বাচন করোঃ

06×20=20

- ১। নিম্নক্ত কোনটি নবীকরণ অযোগ্য শক্তির উৎস?
 - ক) জল খ) সৌর গ) বায়োগ্যাস ঘ) কোনটিই নয়
- ২। "ব্ল্যাকফুট" রোগটির কারণ হল
 - ক) পারদ খ) সীসা গ) আর্সেনিক ঘ) ক্যাডমিয়াম
- ৩। "কুমির প্রকল্প" চালু হয়
 - ক) ১৯৭৫ সালে খ) ১৯৮৩ সালে গ) ১৯৯২ সালে ঘ) ১৯৭৪ সালে
- ৪। ভোপাল গ্যাস দুর্ঘটনা ঘটে
 - ক) ২০ নভেম্বর ১৯৮৪ খ) ২৫-২৬ এপ্রিল ১৯৮৬ গ) ২-৩ নভেম্বর ১৯৮৪ ঘ) ৪ ডিসেম্বর ১৯৮৪
- ে। পরিবেশ সুরক্ষা আইন প্রনীত হয়
 - ক) ১৯৭২ সালে খ) ১৯৭৪ সালে গ) ১৯৮৬ সালে ঘ) ১৯৮১ সালে
- ৬। ওজোনস্তরের ক্ষয়ের হাত থেকে পৃথিবীকে বাঁচতে প্রণয়ন হয়
 - ক) কিয়োটো খসড়া খ) নাগোয়া খসড়া গ) মন্ট্রিল খসড়া ঘ) স্টকহোম খসড়া
- ৭। শব্দের মাত্রা মাপার একক হল
 - ক) ডবসন খ) ডেসিবেল গ) রিখটার ঘ) কোনটিই নয়
- ৮। বিশ্ব পরিবেশ দিবস পালিত হয়
 - ক) ৫ জুন খ) ১১ জুলাই গ) ৬ আগষ্ট ঘ) ১৬ সেপ্টেম্বর
- ৯। কাশ্মীরি হরিণ বা হাঙ্গুল ----- জাতীয় উদ্যানে দেখা যায়।
 - ক) নন্দা দেবী খ) দাচিগাম গ) লোকতাক ঘ) সবগুলি
- ১০। জাতি সংঘের বিশ্ব ঐতিহ্য সম্মেলন অনুমোদিত জীববৈচিত্র সমৃদ্ধ এলাকা কোনটি/কোনগুলি?
 - ক) মানস খ) কাজিরাঙা গ) ভরতপুর ঘ) সবগুলি
- ১১। নদীতে উষ্ণ জল পতিত হলে সেটিকে বলা হয়
 - ক) জল দৃষণ খ) নদী দৃষণ গ) তাপ দৃষণ ঘ) সবগুলি

P.T.O.

(4)	
১২। নিম্নোক্ত ক্ষেত্রে সাধারণত ভত্মীকরণ পদ্ধতি প্রয়োগ করা হয় —	
ক) তরল বর্জ্য খ) বায়বীয় বর্জ্য গ) কঠিন বর্জ্য ঘ) সবগুলি	
১৩। গির জাতীয় উদ্যান কোন রাজ্যে অবস্থিত?	
ক) মধ্যপ্রদেশ খ) রাজস্থান গ) গুজরাট ঘ) উড়িষ্যা	
১৪। 'চিপকে আন্দোলন' শুরু করেছিলেন —	
ক) আনন্দী দেবী খ) মহাত্মা গান্ধী গ) সীতা দেবী ঘ) সুন্দরলাল বহুগুণা	
১৫। ম্যালেরিয়া রোগের ঔষধি যে গাছের নির্যাস থেকে পাওয়া যায় 🗕	
ক) সিঙ্কোনা খ) সর্পগন্ধা গ) ধুতরা ঘ) কোনটিই নয়	a
১৬। নিম্নের কোনটি ভারতের তৃণভূমির প্রকার?	
ক) হিমালয়ের তৃণভূমি খ) শোলা গ) তরাই ঘ) সবগুলি	
১৭। কোন মৌলটি আনবিক শক্তি উৎপাদনের সঙ্গে যুক্ত?	
ক) প্লাটিনাম খ) অ্যালুমিনিয়াম গ) ইউরেনিয়াম ঘ) রেডিয়াম	
৯৮। বৃষ্টির জল সংরক্ষণের সুবিধা হল —	
ক) এটি ভূগর্ভস্থ জলতলের বৃদ্ধি ঘটায় খ) এটি ভূমিক্ষয় হ্রাস করে	
গ) এটি বন্যা এড়াতে সাহায্য করে য) সবগুলি	
১৯। ভারতের বন্যপ্রাণী ইনস্টিটিউট অবস্থিত —	
ক) দেরাদুন খ) নতুন দিল্লী গ) কোলকাতা ঘ) কোনটিই নয়	
২০। ঝুমচাষ ভারতের অঞ্চলে হয়।	
ক) উত্তর-পূর্ব ভারত খ) দাক্ষিণাত্যের মালভূমি গ) নীলগিরি ঘ) কোনটিই নয়	
II. নিম্নলিখিত প্রশ্নের উত্তর দাও : ক) WHO –এর পুরো নাম লেখ।	%= %× ૮
খ) CPCB এর পুরো নাম লেখ।	
গ) ভারতের সবুজ বিপ্লবের জনক কাকে বলা হয়?	
ঘ) ভারতের দুটি আক্রমনকারী প্রজাতির নাম লেখ।	
ঙ) উত্তরায়ণ চত্ত্বরে রবিঠাকুরের বানানো মাটির বাড়িটির নাম লেখ।	
III. নিম্নলিখিত প্রশ্নের সংক্ষিপ্ত উত্তর দাও (যে কোনো পাঁচটি):	2×€=20
ক) ভারতের পূর্বপ্রান্তে অবস্থিত চারটি জাতীয় উদ্যানের নাম উল্লেখ কর। খ) অতিরিক্ত জনসংখ্যা নিয়ন্ত্রণে রাখার চারটি উপায় উল্লেখ কর।	
গ) কঠিন বর্জ্য ব্যবস্থাপনার চারটি উপায় উল্লেখ কর।	
ঘ) দুটি জলবাহিত রোগের নাম লেখ। ঙ) ওজোনস্তরের ক্ষয়জনীত সমস্যাগুলি কি কি?	
চ্) তৃণভূমি বাস্তুতন্ত্রের খাদ্যজালিকা চিত্রের মাধ্যমে প্রকাশ কর।	
ছ) যে কোনো চারটি গ্রিনহাউস গ্যাসের নাম লেখ। জ) খাদ্যশৃঙ্খল ও খাদ্যজালিকা কি?	
াঝ) বননিধনের মূল কার্ণগুলি কি কি?	
এś) জল সংরক্ষণের চারটি পদ্ধতির উল্লেখ কর।	

B.A. (Honours) in Economics Examination, 2023 Semester-IV Economics Paper - CC-08 (Intermediate Microeconomics-II)

Time: 3 Hours

Full marks: 60

Questions are of same value **All questions are COMPULSORY.**

5x12

- 1. Explain the phenomenon of two-part tariff in case of Monopoly. Also mention the motive behind applying this type of pricing strategy by the producer.
- Distinguish between perceived and proportional demand curves in Monopolistic competition. Using a suitable diagram clearly elaborate the case of long-run equilibrium in such market.
- 8. Let the inverse demand function be P = a bQ, and the cost function be $C_i = c \ Q_i$ where i = 1, 2 and $Q = Q_1 + Q_2$. Assume that b > 0 and a > c, where notations have their usual specifications.
 - (a) Determine the Cournot equilibrium output of firm 1 and 2. Also find the Cournot equilibrium price.
 - (b) Calculate the equilibrium output and price when the market is characterized by Monopoly.
- 4. Consider a simple model of differentiated oligopoly where firm A and B are playing Bertrand game. Goods are differentiated in terms of the location of the suppliers along a beach of length L. Consumers are uniformly located along the beach, and the location of firm A and B are denoted by a and b, respectively. Transportation cost for buying the product is d^2 where d is the distance consumer has to travel. The commodity prices are P_A and P_B respectively for A and B. If x is the indifferent location for A and B, determine the Hotelling Nash equilibrium prices for A and B.

5. Write notes on ANY TWO

- (a) Dominant firm price leadership model.
- (b) Monopolistic and Monopsonistic exploitation in the labor market.
- (c) Backward bending labor supply curve.

B.A. (Honours) Examination, 2023 Semester - IV (CBCS) Economics Course: CC-09 (Intermediate Macroeconomics - II)

Time: 3 Hours Full Marks: 60

Questions are of value as indicated in the margin Answer any four of the following questions

1. Derive the aggregate supply curves in the Classical and Keynesian frameworks diagrammatically. What are the fundamental reasons for their difference?

5+5+5=15

2. Derive an expectation-augmented short-run Phillips curve analytically under information asymmetry among the agents. Given the adaptive expectation hypothesis, how does this contour shift in the long run and generate a vertical Phillips curve?

10+5=15

3. What is Lucas critique? Show the Policy Irrelevance result in the New Classical model. In this context, discuss the possibility of policy relevance and the Barro critique.

3+5+5+2=15

4. Write notes on (any two):

7.5+7.5=15

- a. Say's law of market.
- b. IS-LM framework and the aggregate demand curve.
- c. Coordination failure and the effective demand problem.
- d. Monetarism.
- 5. State the fundamental assumptions of the Harrod-Domar model of economic growth. Consider a Harrod-Domar economy where the marginal propensity to savings is 0.20, the capital-output ratio is 6, and the depreciation rate of capital stock is 3%. Find the equilibrium growth rate of that economy.

5+10 = 15

6. Explain the relationship among warranted rate, natural rate and actual rate of growth of an economy. Using a suitable model show how the positive rate of population growth can adversely affect the economic growth of a nation.

7+8 = 15

7. Derive Solow's steady-state of an economy having a homogeneous production structure with constant returns to scale, positive depreciation rate of capital stock and exponential growth of labour force. Explain the effectiveness of exogenous technological progress on that steady state.

10+5=15

8. Write a short note on the Marginal Efficiency of Investment. Discuss Tobin's model of money demand. Briefly explain the concept of the Quantity theory of money.

5+5+5=15

B.A. (Honours) Examination, 2023 Semester-IV (CBCS) Economics Course: CC-10

(International Economics)

Time: 3 Hours

Full marks: 60

Questions are of value as indicated in the margin

Answer Question no 1 and any three from the rest of the following questions

 a. Given the following home import demand function and foreign export supply function, determine the equilibrium TOT and check whether equilibrium is stable or not:

$$M = M_0 - p^W,$$

 $\mathbf{X}^* = \mathbf{X}_0 + 2\mathbf{p}^{\mathbf{W}}$; where notations have their usual specifications.

- b. Show that if the opportunity cost of producing textiles and computers is increasing in both countries, then the equilibrium TOT will strictly lie between the pre trade price ratio.
- c. In Ricardian trade model the gains from accused to labour only while the same is not true for Heckscher-Ohlin Model.

(2+5)+3+5

- 2. a. What is the difference between absolute advantage and comparative advantage?
 - b. State and explain labour theory of value in the context of Ricardian model
 - c. Use the above model to derive the relative world supply curve.

3+4+8

- 3. a. Show that the gains from trade can be decomposed into two parts, namely, gains from specialisation and gains from exchange.
 - b. Is it possible that an entire gains from trade is due to specialisation only? Explain.

8+7

4. a. State and explain the working of Stolper Samuelson theorem.

b. What is immiserizing growth? Give an example of this type of growth.

7+(2+6)

- 5. a. State and prove Marshall-Lerner condition.
 - b. What will be impact of transfer payment on terms of trade? In this context, explain the role of non-traded good.

(2+5)+(5+3)

- 6. a. Why the offer curve is convex to the horizontal axis? When the offer curve will be backward bending?
 - b. Show that a tariff imposed by a large country unambiguously reduces demand for imported good.

(4+4)+7

7. Derive the foreign trade multiplier of a country where consumption and import are determined by the disposable income and tax is proportional to income. Graph out the components along with their subcomponents of the Balance to Payments (BOP) of a country. Distinguish between the Devaluation and Depreciation of home currency.

6+6+3

B.A (Honours) Examination, 2023 Semester-IV Economics Paper GEC-IV (Indian Economy-II)

Time: 3 Hours Full Marks: 60

Questions are of value as indicated in the margin.

Answer *any four* questions.

- 1. Discuss the important functions of the Reserve Bank of India. In this context, explain whether inflation plays any role in RBI's control of the money supply.

 10+5
- Briefly explain the Liberalization Policy or the New Economic Policy adopted by India in 1991. Do you think that the New Economic Policy had any impact on the growth of the Indian Economy? Justify your answer.
- 3. Discuss the achievements and failures of large-scale industry in India. Do you think the privatization of large-scale industries would lead to its recovery? Argue your case.

10+5

- 4. Discuss the problems and prospects of small-scale industry in India. In this context, mention some of the policies taken by the Central Government to boost the small-scale industry in the country.

 10+5
- 5. Explain the role of agriculture in the Indian economy. In this context, explain the major constraints affecting agricultural growth in the country. 10+5
- 6. Explain the role of the service sector in fostering the growth of the Indian economy. In this context, explain the problems of the service sector in India. 10+5
- 7. Briefly explain the advantages of the Goods and Services Tax (GST) compared to previous tax regime for the Indian economy. Does the new GST system give more financial autonomy to the States? Argue your case.
- 8. Write short notes on the following: -
 - (a) Foreign Direct Investment (FDI) in India
 - (b) Fiscal deficit in the Indian economy

8 + 7

B.A. (Honours) Examination-2023

Semester-IV (CBCS)

Political Science

Generic Elective Course: GEC-IV

(Indian Government and Politics-II)

Time: 3 Hours

Full Marks: 60

Questions are of value as indicated in the margin

Question 1 is compulsory and choose any three from the rest

(15x4=60)

- 1) Discuss the features of the Indian party system. What is the problem of Defection in Indian politics? (12+3)
- 2) Given the context of the Emergency of 1975 in India, examine the Emergency powers as exercised by the then President of India. What are some of the prominent reasons of the Emergency of 1975?

 (7.5+7.5)
- 3) Discuss the salient features of the Caste system as propounded by G.S.Ghurye. Examine the role of Caste in Indian politics, specifically referring to the ideas of Rajni Kothari.

(7.5+7.5)

- 4) Examine in brief the Legislative and Financial powers of the Lok Sabha. Discuss the role of the Speaker of Lok Sabha. (7.5+7.5)
- 5) State three important features of the Indian Judiciary. Write a note on the various jurisdictions of the Supreme Court of India. (3+12)
- 6) Write a note on the Head of the State Executive in India. (15)

Ref No. VB/EXAM/REG/ 02/UG/ECO/Sem-IV/31021/2023

B.A. (Honours) Examination, 2023

Semester—IV

Subject: Economics

Course-SECC-2((Statistical Methods II)

Time: 2 hours

Full Marks: 25

Questions	are	of	value	as	indicated	in	the	margin	

to has any live of the Allowing ques

1. (a) What do you mean by "sampling fluctuations" of a statistic?

- (b) Find the standard error of sample mean when you draw a sample of given size from a finite population by the method of 'SRSWOR'. 1+4=5
- 2. Distinguish between simple random sample with replacement and stratified simple random sampling.
- 3. Prove that sample mean is BLUE of population mean in case of iid sample observations from a simple population.
- 4. (a) State the Neyman-Fisher factorization theorem.
 - (b) Define Chi-square distribution. State any two of its properties. 2 + (2+1) = 5
- 5. When an estimator is said to be consistent for estimating an unknown parameter? What are the necessary and sufficient conditions for an estimator to be consistent for a parameter? 3+2=5
- 6. Explain the maximum likelihood method of point estimation. State any two properties of maximum likelihood estimator.
- 7. When a population follows normal distribution, find the 95% confidence interval for the unknown parameter mean.
- 8. Consider the following data regarding the height(X) and weight(Y) of 8 individuals.

Serial No.	1	2	3	4	5	6	7	8
X	65	63	67	64	68	62	70	66
Y	68	66	68	65	69	66	68	65

(a) Find the co-variance between X and Y.

(b) Find the coefficient of correlation between X and Y.

2 + 3 = 5

A. 4. 4.

B.A. (Honours) Examination, 2024 Semester - IV (CBCS) Economics Course: CC-09

(Intermediate Macroeconomics - II)

Time: 3 Hours

Full Marks: 60

Questions are of value as indicated in the margin Answer any four (04) of the following questions

- 1. What are the impacts of a money wage cut in the Classical Macroeconomic model? Why and how do these impacts change in the Complete Keynesian framework under a depressionary situation? 6+9=15
- 2. Derive an expectation-augmented short-run Phillips curve using the Workers' Misperception model. How does this contour shift in the long run and generate a long-run Phillips curve?

 12+3 = 15
- 3. What is Lucas critique? Show the Policy Irrelevance result in the New Classical model using the expectation augmented aggregate supply curve. In this context, discuss a possibility of policy relevance and the Barro critique on that. 3+5+5+2=15
- 4. Distinguish between the marginal efficiency of capital and the marginal efficiency of investment and identify the factors that govern the marginal efficiency of investment. 5+5+5=15
- 5. Analytically express the fundamental assumptions of the Harrod-Domar model of economic growth. Explain how the Actual growth rate depends on the relationship between Warranted and Natural growth rates of an economy. 6+9=15
- 6. Based on a dynamic model, show that population growth adversely affects the per-capita economic growth of a country. Using the AK model, interpret technology as a factor in the economic growth of a country.

7+8 = 15

- 7. Consider a Solow economy without population growth or technological change, where the savings rate is 10% and the depreciation rate of capital is 1%. Find out the steady-state and Golden rule level of k when the output function is given by $Y = K^{0.4}L^{0.6}$ (all symbols follow their usual meanings). 7+8=15
- 8. Write notes on (any two):

7.5+7.5=15

- a. Accelerator Theory of Investment.
- b. Portfolio Balance approach.
- c. Double Crowding Out Effect in Complete Keynesian Model.
- d. Coordination failure and policy relevance despite Rational Expectation.

B.A. (Honours) in Economics Examination, 2024 Semester-IV Economics Paper - CC-08 (Intermediate Microeconomics-II)

Time: 3 Hours

Full marks: 60

Questions are of value as indicated in the margin

Question 1 is COMPULSORY, and attempt any FOUR questions from the rest

- 1. Assume that there are 'n' numbers of firms in an oligopoly market characterized by Cournot features. The marginal cost of production is identical for all the firms, and $MC_i = c_i$. The inverse market demand function is denoted by P = a bQ where $= \sum_{i=1}^{n} q_i$. Also note that i = 1, 2, ..., n. Solve for Cournot equilibrium output of a firm assuming all firms as identical.
- 2. (a) Consider that a monopolist faces an inverse demand function P = a bQ, and the marginal cost, c, is constant. Here the symbols have their usual meanings. Show that at equilibrium P > MC if the value of the elasticity of demand is greater than unity. (b) Now assume that a specific tax t is imposed on the monopolist. Examine the effect of such tax in terms of change in the equilibrium price and output. 6+6
- 3. What do you understand by price discrimination in monopoly? Explain the phenomenon of two-part tariff where the consumers' demands are non-identical. 2+10
- 4. It is often found in oligopolistic market that the equilibrium price once determined remains rigid there. Can you elaborate any such model of oligopoly market which is capable of explaining this fact?
- 5. Let the demand function be $q_i = a_i P_i + \binom{P_j}{2}$ where i, j = 1, 2 denotes different firms producing differentiated products. Also note that $i \neq j$ and $TC_1 = TC_2 = 0$.

Solve for P_1, P_2, π_1 and π_2 when both the firms follow Bertrand market strategy of price setting.

6. Diagrammatically explain why the level of equilibrium output would be less when firm's motive of profit maximization is replaced by the motive of sales revenue maximization. Do you think that such modification in firm's motive is realistic?

10+2

7. Write notes on ANY TWO

(2X6)

- (a) Prisoners dilemma
- (b) Monopolistic and monopsonistic exploitation
- (c) Contract Curve

B.A. (Honours) Examination, 2024 Semester-IV (CBCS)

Economics

Course: CC-10

(International Economics)

Time: 3 Hours

Full marks: 60

Questions are of value as indicated in the margin

Answer Question no 1 and any three from the rest of the following questions

- 1. Consider the standard Heckscher-Ohlin model, and suppose that the production functions of both the commodities are identical. All other assumptions of Heckscher-Ohlin model remain valid.
- a. What does the identity of production functions between two commodities imply about the shape of the production possibility frontiers of both the commodities?
- b. What is the basis for trade between two countries?
- c. Explain the implications of the identity of production functions between two commodities for the following theorems:
 - (i) Heckscher-Ohlin
 - (ii) Factor-Price Equalization.

4+2+(3+6)

- 2. a. "In the absence of international trade, the relative prices of goods are equal to their relative unit requirements"-Prove this statement in the context of Ricardian Model.
 - b. Use this model to show the possibility of trade between two countries.

7+8

- 3. a. Show that the gains from trade can be decomposed into two parts, viz; gains from specialisation and gains from exchange.
 - b. In Heckscher-Ohlin set up, will there be any gains from trade for a country where all factors of production are completely immobile across sectors?

- 4. State and explain the following theorems:
 - a. Stolper-Samuelson.
 - b. Rybczynski.

8+7

- 5. a. Why might a developing country that experiences a bumper crop in its export good find itself less well off than in a normal production year?
 - b. State and prove the Marshall Lerner condition.

7+(2+6)

- 6. a. Define Trade Indifference curve.
 - b. Write a short note on Meztler Paradox.
 - c. Show that under a situation of tariff war, free trade is not the best policy for both the countries.

(4+5)+6

7. Write down the relationship between Balance of Payments (BoP) and Balance of Trade (BoT) through their components. Derive and compare the investment multipliers in an open and a closed economy. How do you relate net-export with the floating foreign exchange rate of a country?

4+8+3

B.A (Honours) Examination, 2024 Semester-IV Economics Paper GEC- 4 (Indian Economy-II)

Time: 3 Hours

Full Marks: 60

Questions are of value as indicated in the margin Answer *any four* questions

- 1. Explain through a suitable diagram or otherwise the structure of the Indian budget. In this context, explain the different kinds of special budgeting that can be done by India.

 10+5
- 2. Discuss the role of large-scale industries in India's economic development. In this context, identify the problems of large-scale industries in the present scenario. 10+5
- 3. Briefly explain the structure of the Goods and Services Tax (GST) in the Indian economy. Does the GST system give more financial autonomy to the States? Argue your case.
- 4. Explain the role of agriculture in the Indian economy. In this context, explain the major constraints presently impeding the agricultural growth in the country. 10+5
- 5. Explain the role of the major service sectors in the Indian economy. In this context, explain the various problems faced by the service sector. 10+5
- 6. Explain the main functions of the Reserve Bank of India (RBI). In this context, explain how RBI controls inflation in the economy. 10+5
- 7. Explain the importance of the small-scale industry in the Indian economy. In this context, explain the various policies implemented by the Central Government to help the small-scale industries.
- 8. Write short notes on the following: -

(a) Food Processing Industry (FPI) in India

(b) Centre-State Financial Relations in India

8+7

B.A. (Honours) Examination-2024 Semester-IV (CBCS) Political Science Generic Elective Course: GEC-4 (Indian Government and Politics-II)

Time: 3 Hours Full Marks: 60 Questions are of value as indicated in the margin Question 1 is compulsory and choose any three from the rest (15x4=60)1) State any five features of the Indian judiciary. Write a note on the Supreme Court of India. (5+10)2) Mention any five major functions of Rajya Sabha. Discuss the powers and functions of Lok Sabha. (5+10)3) Broadly illustrate the themes of "Annihilation of Caste". (15)4) Write a note on the origin of Caste as enunciated by B.R.Ambedkar. State the main characteristics of Caste system as explained by G.S.Ghurye. (7.5+7.5)5) Write a note on the powers and functions of the President of India. (15)6) How is the Governor of a state in India appointed? Discuss the powers and functions of a Governor (3+12)

B.A. (Economics) Examination, 2024 SEMESTER-IV

Subject: Economics

Course: Statistical Methods-II (SECC-II)

Time: 2 hours Full Marks: 25

Question No. 1 is compulsory and attempt any two from the remaining questions

Attempt any two from question No.1

1. (a) What are degrees of freedom in statistics? (2.5)
(b) What is level of significance? (2.5)
(c) What are type-I and type-II errors? (2.5)
(d) What is p-value? (2.5)

2. Define the following terms without illustration.
Sample, Population, Sampling Distribution, Estimator, Simple Random Sampling with Replacement (SRSWR). (5X2 = 10)

3. (a) State and explain the criteria of a good estimator.

(b) What is an interval estimation of a parameter?

(8+2=10)

(a) Distinguish between probability mass function (pmf) and probability density function (pdf).

(b) What are marginal probabilities in joint distribution?

(c) How are marginal probabilities different from conditional probabilities?

(3+3+4=10)

6 A. Consider the following table of joint distribution of two random variable X & Y.

X\ \rightarrow \frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fin}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\fra	0	1	2
1	0.3	0.2	0.1
2	0.1	0.0	0.3

(a) Are X and Y independent?

(b) Determine the correlation coefficient between X and Y.

(4+6=10).

Four-Year Undergraduate Examination, 2025 Semester – IV (NEP)

English

AECC (Ability Enhancement Compulsory Course): English Language and Communication II

Time: 3 Hours

Full Marks: 40

Questions are of equal value. Answer any four questions.

- 1. Write an e-mail to the Principal of your Bhavana seeking permission to organise an interdepartmental debate competition.
- 2. As the representative of your Department, draft a notice for organising a farewell function for the outgoing students in the next month.
- 3. Write an essay on any one of the following topics:
- a) Impact of social media on the youth of the country, b) Climate crisis and its effect on humans, c) The problem of unemployment, d) Festivals of Santiniketan

4) Read the passage carefully and answer the following questions.

5X2 = 10

Rabindranath Tagore was a towering figure in Indian literature and culture. Born on May 7, 1861, in Calcutta, India, Tagore was a polymath - a renowned Bengali poet, philosopher, playwright, educator, and composer. His literary works are known for their lyricism, depth, and universality, exploring themes of love, nature, spirituality, and the human condition. Tagore's collection of poems, "Gitanjali", earned him the Nobel Prize in Literature in 1913, making him the first non-European to receive this honor. He was a key figure in India's cultural renaissance, influencing not only literature but also art, music, and education. Tagore founded Visva-Bharati University, which aimed to promote cultural exchange and holistic learning. Tagore's vision for education emphasized the importance of creativity, freedom and holistic learning. He believed in the unity of all knowledge and the interconnectedness of different cultures. His legacy extends beyond India, inspiring artists, writers, and thinkers worldwide. Today, Tagore's works continue to be celebrated for their beauty, wisdom, and relevance.

- a. When was Rabindranath Tagore born?
- b. What award did Tagore receive in 1913?
- c. What themes did Tagore's writings explore?
- d. What did Tagore emphasize in his vision for education?
- e. What institution did Tagore establish, and what was its aim?
- 5. Write a précis of the passage given below and add a suitable title.

Unemployment in India remains a significant challenge, driven by a complex interplay of economic, demographic, and structural factors. As of 2025, the unemployment rate hovers around 7-8%, with urban areas and youth facing higher joblessness. The country's rapidly growing population, adding millions to the workforce annually, outpaces job creation, particularly in the formal sectors. While agriculture employs nearly 40% of the workforce, it contributes less to GDP, reflecting underemployment and low productivity. The manufacturing and service sectors, though growing, struggle to absorb the surplus labour due to automation and skill mismatches. Educated youth, especially graduates, face high unemployment due to a gap between academic training and industry demands. Government initiatives like Skill India and Make in India aim to boost employability and industrial growth, but their impact is gradual. Rural-to-urban migration further strains urban job markets, leading to informal employment with low wages and poor conditions. Women's participation in the workforce remains low, exacerbating gender disparities. Despite recent economic reforms, bureaucratic hurdles and inadequate infrastructure hinder job creation. Addressing unemployment requires sustained investment in education, skill development, and labour-intensive industries to align with India's demographic dividend and economic aspirations.

Ref. No.VB/EXAM/REG/02/UG/ECO./Sem-IV/38231/2025

B.A. (Honours) in Economics Examination, 2025

Semester-IV(Back candidates)

Paper -Intermediate Microeconomics-II (CC-08)

Time:	3 Hours Full Marks:	60
	Attempt any THREE	
1.	Write notes on any two	2=20
	(a) Price leadership model	
	(b) Peak-load pricing	
	(c) Backward bending supply curve of labour	
	(d) Stackleberg's leadership model of oligopolistic model	
2.	(a) Distinguish between VMP _L and MRP _L ? Are they same in competitive market	ets? (8)
	(b) How is monopolistic exploitation different from monopsonistic exploitation	1? (8)
	(c) Can trade unions address the problem of monopolistic exploitation and mor	nopsonistic
	exploitation? Justify your answer.	(4)
3.	(a) What is meant by price discrimination in economics?	(4)
٥.	(b) What are its types? Briefly explain them with the help of diagrams.	(12)
	(c) How is monopolistic market different from monopoly market?	(4)
4.	(a) What are the basic features of a bilateral monopoly market?	(5)
т.	(b) Explain the process of attainment of equilibrium in a bilateral monopoly?	(15)
5.	(a) Outline the significance of game theory in Economics.	(4)
	(b) Distinguish between mixed strategy and pure strategy with the help of an e	example.
		(5)
	(c) Explain the dominant and dominated strategy with a suitable example.	(4)
	(d) What is Nash equilibrium in Game theory? Explain mixed strategy Nash	
	with the help of an example.	(7)
6.	(a) Consider a duopoly market where demand curve is given by $P = 360-Q$ an	$dQ = Q_1 + Q_2$
	Q_2 , and the marginal cost (MC) of Firm-1 is MC_1 = 60 and that of Firm-2 is	$MC_2 = 120$
	respectively. Compute the equilibrium output (Q), price (P) and profit ((π	under the
	Cournot mechanism.	(10)
	(b) Consider a multi-plant monopoly (two plants) with demand curve $Q = 200$	- 2P, where
	$Q = Q_1 + Q_2$ and cost structure of plant-1 is $TC_1 = 10Q_1$ and that of plant	$nt-2$ is TC_2
	=0.25 Q_2^2 . Compute the profit maximizing out (Q), price (P) and profit (π)	(10)

B

B.A. (Honours) Examination, 2025 Semester -IV (CBCS) (Back Candidates) Economics Course: CC-09 (Intermediate Macroeconomics - II)

Time: 3 Hours

Full Marks: 60

Questions are of value as indicated in the margin Answer any four (04) of the following questions

1. What are the impacts of an increase in money supply in the Classical Macroeconomic model? How do these impacts change in the Complete Keynesian framework? Discuss in detail.

[6+9=15]

2. Derive the Expectation-augmented Aggregate Supply curves using the Workers' Misperception model.

3. Compare and contrast Adaptive and Rational Expectations. Show the Policy Irrelevance result in the New Classical framework using both the Expectation-augmented Aggregate Supply and Phillips Curves.

4. Derive the Harrod-Domar model of an economy when the saving-income ratio, output-capital ratio and depreciation rate of capital are denoted by s, c and δ , respectively. Now find the equilibrium growth rate of that economy if s = 0.15, c = 0.20 and $\delta = 0.02$.

5. Determine the Solow's steady-state of an economy having the output function $Y = AL^{1-\alpha}K^{\alpha}$, when all symbols follow their usual meanings. What do you mean by the Golden Rule of capital accumulation?

6. Show that the actual growth rate of an economy is determined by the relationship between warranted and natural growth rates. Derive the per-capita economic growth by incorporating population growth in a suitable structure.

7. Write notes on (any two):

a. Say's Law of markets.

b. Simple Keynesian Multiplier.

c. Crowding Out Effect in the IS-LM framework.

d. Menu Cost and policy relevance.

 $[7.5 \times 2 = 15]$

[7.5+7.5 = 15]

8. Write notes on (any two):

- a) AK Model of Economic Growth.
- b) Marginal Efficiency of Capital.
- c) Accelerator Theory of Investment.
- d) Marginal Efficiency of Investment.

 $[7.5 \times 2 = 15]$

<u>B</u>_

B.A. (Honours) Examination, 2025 Semester -IV (CBCS) (Back Candidates) Economics Course: CC-09 (Intermediate Macroeconomics - II)

Time: 3 Hours

Full Marks: 60

Questions are of value as indicated in the margin Answer any four (04) of the following questions

1. What are the impacts of an increase in money supply in the Classical Macroeconomic model? How do these impacts change in the Complete Keynesian framework? Discuss in detail.

[6+9=15]

2. Derive the Expectation-augmented Aggregate Supply curves using the Workers' Misperception model.

[15]

3. Compare and contrast Adaptive and Rational Expectations. Show the Policy Irrelevance result in the New Classical framework using both the Expectation-augmented Aggregate Supply and Phillips Curves.

[2+2+5+6=15]

4. Derive the Harrod-Domar model of an economy when the saving-income ratio, output-capital ratio and depreciation rate of capital are denoted by s, c and δ , respectively. Now find the equilibrium growth rate of that economy if s = 0.15, c = 0.20 and $\delta = 0.02$.

[10+5 = 15]

5. Determine the Solow's steady-state of an economy having the output function $Y = AL^{1-\alpha}K^{\alpha}$, when all symbols follow their usual meanings. What do you mean by the Golden Rule of capital accumulation?

[12+3 = 15]

6. Show that the actual growth rate of an economy is determined by the relationship between warranted and natural growth rates. Derive the per-capita economic growth by incorporating population growth in a suitable structure.

[7.5+7.5 = 15]

- 7. Write notes on (any two):
 - a. Say's Law of markets.
 - b. Simple Keynesian Multiplier.
 - c. Crowding Out Effect in the IS-LM framework.
 - d. Menu Cost and policy relevance.

 $[7.5 \times 2 = 15]$

- 8. Write notes on (any two):
 - a) AK Model of Economic Growth.
 - b) Marginal Efficiency of Capital.
 - c) Accelerator Theory of Investment.
 - d) Marginal Efficiency of Investment.

 $[7.5 \times 2 = 15]$

B.A. (Honours) Examination, 2025 Semester-IV (CBCS) Economics Course: CC10

(International Economics)

Time: 3 Hours

Full marks: 60

Questions are of value as indicated in the margin

Answer Question no 1 and any three from the rest of the following questions

- 1. a. A New Yorker travels to New Jersey to buy a \$100 telephone answering machine. The New Jersey company that sells the machine then deposits the \$100 cheque in its account at a New York bank. How would these transactions show up in the balance of payments accounts of New York and New Jersey?
 - b. Why a developing country that experiences a bumper crop in its export good find itself less well off than in a normal production year?
 - c. In Ricardian trade model, the gains from trade accrued to labour only while the same is not true for Heckscher-Ohlin Model.

6+5+4

- 2. a. What is the difference between absolute advantage and comparative advantage?
 - b. Which one is more preferable to a country depending on the terms of trade: an import tariff or an export subsidy? Explain with reasons.
 - c. "In the absence of international trade, the relative prices of goods are equal to their relative unit requirements"-Prove this statement in the context of Ricardian Model.

5+5+5

- 3. a. Show that the gains from trade can be decomposed into two parts, namely, gains from specialisation and gains from exchange.
 - b. Is it possible that an entire gains from trade is due to specialisation only? Explain.

8+7

4. a. State and explain the working of Stolper Samuelson theorem.

b. What is immiserizing growth? Give an example of this type of growth.

8+(2+5)

- a. Define Trade Indifference curve. Derive offer curve for a particular country using trade indifference curve.
 - b. Write a short note on Non-tariff barriers of trade.
 - c. State and prove Marshall-Lerner condition

(1+4)+5+5

- 6. a. "Commodity trade is an indirect way of factor trade". Explain.
 - b. What will the shape of the offer curve for the home country? What are the reasons behind that shape? Explain with a diagram.
 - c. Show that under a situation of tariff war, free trade is not the best policy for both the countries.

5+(1+4)+5

- 7. a. Distinguish between 'clean float' and 'dirty float' of foreign exchange regime.
 - b. Define Depreciation of home currency. What will be its effect on terms of trade?
 - c. Develop a national income model with international transmission to show how fluctuations in economic activities are transmitted across countries.

4+5+6

B.A. (Honours) Examination-2025

Semester-IV (CBCS)

Political Science

Generic Elective Course: GEC-4

(Indian Government and Politics-II)

Time: 3 Hours

Full Marks: 60

Questions are of value as indicated in the margin

Answer any four questions

(15x4=60)

- 1) Discuss the role, powers and contemporary relevance of the office of the Governor in India. (15)
- 2) Examine the role and functions of the Supreme Court of India as the apex judicial authority in the country. (15)
- 3) Evaluate the structure and functioning of the Panchayati Raj system in West Bengal. To what extent has it succeeded in promoting grassroot democracy and local governance? (7.5+7.5)
- 4) Describe the composition and legislative powers of the Lok Sabha. How does it function as the central organ of democratic representation in India? (10+5)
- 5) Explain the constitutional role, powers, and responsibilities of the President of India. How does the President function as a nominal head within the framework of parliamentary democracy? (10+5)
- 6) Critically analyse the composition, powers, and functions of the Rajya Sabha. (15)

Semester-IV

Paper -Intermediate Microeconomics-II (MJEC07)

ime: 3	B Hours Full Mark	s: 80
	Attempt any FOUR	
1.	(a) Distinguish between VMP _L and MRP _L ? Are they same in competitive markets?	(6)
	(b) How is monopolistic exploitation different from monopsonistic exploitation?	(7)
	(c) Can trade unions address the problem of monopolistic exploitation and monopsonis	3 6
	Justify your answer.	
	Justify your answer.	(7)
2	(a) Outling the significance of some theory in Francisco	(4)
2.	(a) Outline the significance of game theory in Economics.	(4)
	(b) Distinguish between mixed strategy and pure strategy with the help of an example.	(5)
	(c) Explain the dominant and dominated strategy with a suitable example.	(4)
	(d) What is Nash equilibrium in Game theory? Explain mixed strategy Nash equilibrium	N
	an example.	(7)
3.	(a) Consider a duopoly market where demand curve is given by $P = 360-Q$ and $Q = Q$) + O and the
٥,		
	marginal cost (MC) of Firm-1 is MC ₁ = 60 and that of Firm-2 is MC ₂ = 120 respectivel	y. Compute the
	equilibrium output (Q), price (P) and profit ((π) under the Cournot mechanism.	(10)
	(1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	(10)
	(b) Consider a multi-plant monopoly (two plants) with demand curve $Q = 200- 2P$, where	
	cost structure of plant-1 is $TC_1 = 10Q_1$ and that of plant-2 is $TC_2 = 0.25Q_2^2$. Compute the p	
	out (Q), price (P) and profit (π)	(10)
4	(a) Why do markets fail is adding Denote off in a 2 February	(7)
4.	(a) Why do markets fail in achieving Pareto efficiency? Explain	(7)
	(b) Using suitable examples, distinguish between the problem of 'moral hazard' and 'adver	
	(c) Outline possible ways of addressing the asymmetric information problems as stated in (b) (5)
5.	(a) What is meant by price discrimination in economics?	(4)
	(b) What are its types? Briefly explain them with the help of diagrams.	(12)
	(c) How second degree price discrimination is different from the third degree price discrimination is different from the discrimination of the discrimination degree price discrimination degree discrimination degree discrimination degree deg	nation. (4)
6.	(a) How monopolistic market is different from monopoly market?	(5)
0.	(b) With the help of perceived and proportional demand curve, explain the attainment of	5 /
	monopolistic competition under (i) new firms entering the industry, (ii) existing firms in	
	price competition, and (iii) industry experiencing active price completion and free entry of	
-	(A) William 1 - 111 - 111 - 1 - 12 - 1 - 12	(15)
7.	(a) What is general equilibrium and it is significant in economics?	(5)
	(b) Graphically explain the two factors, two commodities and two consumers general eq	
	(2X2X2) the attainment of (i) efficiency in distribution of commodities across consumers,	S. 6.
	factors across among firms and (iii) efficient in out-put mix.	(9)
	(c) Briefly discuss the various criteria of welfare economics.	(6)
8.	Write notes on any two	10X2=20
0.		10/12-20
	(a) Price leadership model	
	(b) Pear load pricing	
	(c) Bilateral monopoly	
	(d) Stackleberg's leadership model of oligopolistic market	

Four Year UG Programme Examination, 2025 Semester - IV (NEP) **Economics Major MJEC08** Economics (Intermediate Macroeconomics - II)

Time: 3 Hours

Full Marks: 80

 $[10 \times 2 = 20]$

Questions are of value as indicated in the margin

Answer any four (04) of the following questions 1. What are the impacts of an increase in money supply in the Classical Macroeconomic model? How do these impacts change in the Complete Keynesian framework? Discuss in detail. 2. Derive the Expectation-augmented Aggregate Supply curves using the Workers' Misperception model. 3. Compare and contrast Adaptive and Rational Expectations. Show the Policy Irrelevance result in the New Classical framework using both the Expectation-augmented Aggregate Supply and Phillips 4. Derive the Harrod-Domar model of an economy when the saving-income ratio, output-capital ratio and depreciation rate of capital are denoted by s, c and δ , respectively. Now find the equilibrium growth rate of that economy if s = 0.15, c = 0.20 and $\delta = 0.02$. 5. Determine the Solow's steady-state of an economy having the output function $Y = AL^{1-\alpha}K^{\alpha}$, when all symbols follow their usual meanings. What do you mean by the Golden Rule of capital accumulation? 6. Show that the actual growth rate of an economy is determined by the relationship between warranted and natural growth rates. Derive the per-capita economic growth by incorporating population growth in a suitable structure. [10+10=20]7. Write notes on (any two): a. Say's Law of markets. b. Simple Keynesian Multiplier. c. Crowding Out Effect in the IS-LM framework. d. Menu Cost and policy relevance. $[10 \times 2 = 20]$ 8. Write notes on (any two): a) AK Model of Economic Growth. b) Marginal Efficiency of Capital. c) Accelerator Theory of Investment. d) Marginal Efficiency of Investment.

Four Year Undergraduate Programme - Economics (Major) Examination, 2025 Semester - IV (NEP) MJEC09_Economics (Introduction to Econometrics)

Time: 3 Hours

Full Marks: 80

Questions are of value as indicated in the margin Answer any four (04) of the following questions

- 1. Suppose X and Y are a discrete and a continuous random variable respectively. Now derive the mean and variance of X and Y in terms of their probabilities. If Z = X + Y, then show that $Var(Z) \neq Var(X) + Var(Y)$.
- 2. What are the steps of an econometric analysis? What is the difference between a statistical model and an econometric model? State the necessary assumptions for estimation of a simple linear regression model.
- 3. What are the types of data used in econometric analysis? explain in detail with suitable examples. If Y = bX, then show that $Var(Y) = b^2Var(X)$.
- 4. Estimate α and β of the regression equation $Y_i = \alpha + \beta X_i + \varepsilon_i$ using a suitable method. Prove that $Cov(X_i, \varepsilon_i) = 0$.
- 5. What do you mean by 'BLUE'? explain in detail. Discuss the relevance of the Mean-Squared Error (MSE) property of the estimators. [14+6=20]
- 6. State the Asymptotic properties of the estimators. Prove that TSS = ESS + RSS, when all notations follow their usual meanings.
- 7. Prove that the OLS estimate of β of a regression equation $Y_i = \alpha + \beta X_i + \varepsilon_i$ is unbiased. Define Type I and Type II errors.
- 8. What do you mean by the testing of hypothesis? explain with a suitable example. Discuss the problems of Heteroscedasticity and Autocorrelation in case of a linear regression model. [14+6=20]

[6+14=20]

B.A. (Honours) Examination, 2025 Semester-IV (NEP) Economics

Course: MJEC10

(International Economics)

Time: 3 Hours

Full marks: 80

Questions are of value as indicated in the margin

Answer Question no 1 and any three from the rest of the following questions

- 1. a. A New Yorker travels to New Jersey to buy a \$100 telephone answering machine. The New Jersey company that sells the machine then deposits the \$100 cheque in its account at a New York bank. How would these transactions show up in the balance of payments accounts of New York and New Jersey?
 - b. Why a developing country that experiences a bumper crop in its export good find itself less well off than in a normal production year?
 - c. In Ricardian trade model, the gains from trade accrued to labour only while the same is not true for Heckscher-Ohlin Model.

8+6+6

- 2. a. What is the difference between absolute advantage and comparative advantage?
 - b. Which one is more preferable to a country depending on the terms of trade: an import tariff or an export subsidy? Explain with reasons.
 - c. "In the absence of international trade, the relative prices of goods are equal to their relative unit requirements"-Prove this statement in the context of Ricardian Model.

6+6+8

- a. Show that the gains from trade can be decomposed into two parts, namely, gains from specialisation and gains from exchange.
 - b. Is it possible that an entire gains from trade is due to specialisation only? Explain.

10+10

4. a. State and explain the working of Stolper Samuelson theorem.

b. What is immiserizing growth? Give an example of this type of growth.

10+(3+7)

- 5. a. Define Trade Indifference curve. Derive offer curve for a particular country using trade indifference curve.
 - b. Write a short note on Non-tariff barriers of trade.
 - c. State and prove Marshall-Lerner condition

(2+5)+6+7

- 6. a. "Commodity trade is an indirect way of factor trade". Explain.
 - b. What will the shape of the offer curve for the home country? What are the reasons behind that shape? Explain with a diagram.
 - c. Show that under a situation of tariff war, free trade is not the best policy for both the countries.

7+(2+5)+6

- 7. a. Distinguish between 'clean float' and 'dirty float' of foreign exchange regime.
 - b. Define Depreciation of home currency. What will be its effect on terms of trade?
 - c. Develop a national income model with international transmission to show how fluctuations in economic activities are transmitted across countries.

6+6+8

BA Examination, 2025 SEM-IV Subject: MNEC02(Economics) (For Regular Candidates) Introductory Macroeconomics

Time: 3 hours

Full Marks: 80

Questions are of value as indicated in the margin Answer any four of the following

1.	(a) (b)	Distinguish between actual GDP and potential GDP. Briefly discuss the different methods of measuring GDP.	5+15=20
2.	(a)	Depict the model of a three-sector circular flow of income. What are injections in the model	e the leakages and
	(b)	Is GDP a true measure of economic welfare of a nation? Discuss.	10+10=20
3.	(a)	Discuss the Keynesian consumption function. Define MPC and APC	24
	(b)	For C= a + bY, a>0 and 0 <b<1, corresponding="" derive="" fund<="" saving="" td="" the=""><td>ction.</td></b<1,>	ction.
	(c) APC w	If the consumption function is given by $C = 250 + 0.75 \text{ Y}$; Calculuhen income(Y) is 530.	ate the MPC and (4+4)+6+6=20
4.		s how full employment in the economy is ensured in the classical of output and employment.	1 macroeconomic 20
5.	(a) withou	How is equilibrium income determined in a simple Keynesian the presence of the government sector?	closed economy
	(b) equilib	What do you mean by stability in the equilibrium? Examine rium level of income in a simple Keynesian Model.	the stability of 10+10=20
5.	(a)	Define money and its different functions.	
	(b)	Write a note on the evolution of money.	
	(c)	Write a note on Gresham's Law	6+6+8=20
7.	(a)	Write a note on the functions of a Central Bank.	
	(b)	Write a short note on Fisher's Quantity theory of money(QTM).	
	(c)	Explain the process of credit creation by the commercial banks.	4+8+8=20
3.	(a)	Distinguish between demand-pull and cost-push inflation.	
	(b)	Explain how different policies may be used to control inflation in an	economy. 10+10=20

Four Year Undergraduate Programme- Economics (Major)-2025

Semester-IV

MNPS02 (NEP)

Subject: Political Science

(Political Theory-II)

Time: 3 Hours

Full Marks: 80

Questions are of value as indicated in the margin

Answer any four questions

(20x4=80)

- 1) Evaluate the political, social, and ideological underpinnings of Gandhi's Non-Cooperation Movement (1920–22). (20)
- 2) Examine the central tenets of Elite Theory as propounded by Pareto, Mosca, Michels and C.Wright Mills. (20)
- 3) Discuss the ideological and strategic differences between Mahatma Gandhi and Dr. B.R. Ambedkar on the question of caste and untouchability. (20)
- 4) What are the historical origins and foundational principles of liberal democracy? Critically assess the key challenges it faces in the contemporary world. (14+6)
- 5) Explain the concepts of dialectical materialism and historical materialism in Marxist theory. How do these concepts serve as methodological tools for analyzing social change and class struggle? (10+10)
 - 6) Discuss the concepts of power and authority from a gender perspective. In this connection highlight how gender shapes and influences their understanding and exercise in society. (10+10)