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BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI			
SECOND SEMESTER 2022-2023			
<u>Comprehensive Examination</u>			
<u>Part-A & B (Closed Book) - 1</u>			
Course No.	: ECON F244	Maximum Marks	: 40
Course Title	: Economics of Growth & Development	Duration (Max)	: 90 Minutes
Date	: 6/May/2023	Weightage	: 20%

Instructions:

1. Write your *Name* and *ID Number* clearly on the answer sheets.
2. There are two parts, Part-A & B. Part A carries a total of 15 questions and Part B carries 3 questions.
3. No rewriting is allowed and will not be evaluated. Use of pencil is not allowed.
4. At the end, submit both the question paper and the answer sheet.
5. Calculator is allowed; however, exchange of calculator is not permitted.

Space for Evaluator

Total Marks (Part A)	Total Marks (Part A)	Total Marks (Part A&B)

Space for the Student

PART-A - MCQs								
Question	1	2	3	4	5	6	7	8
Answer								
Question	9	10	11	12	13	14	15	
Answer								

Part A

Multiple Choice Questions (1 Mark Each)

(Choose one correct option and write the answer in the box given above – No Negative Marking)

Q1: Which of the following helps to measure Poverty Determination?

- a) Poverty Gap Index b) Head Count Ratio c) Sen Index d) all of these

Q2: When reference is made to the _____, it means the specific amount of income needed for a basic standard of living.

- a) poverty trap b) income line c) income gap d) poverty line

Q3: Indices of income distribution measure?

- a) absolute poverty b) economic growth c) relative poverty d) standard of living

Q4: Autarchy, as used in the text, refers to

- a) an economy that does not trade
- b) developing country dictatorships
- c) an economy that trades primary products in exchange for manufactures
- d) the caste system and related social structures

Q5: In which type of dualistic development the two sector economy develops by enlarging the size of its modern sector while maintaining constant wage in both sector?

- a) Modern-sector enlargement
- b) Modern-sector enrichment
- c) Traditional Sector Enrichment
- d) none of these

Q6: Development plans have often failed because

- (a) they have been insufficiently specific about projects
- (b) they have overlooked noneconomic considerations
- (c) they have been overambitious
- (d) all of these

Q7: An example of an institutional requirement for the operation of effective private markets is

- (a) enforcement of contracts
- (b) the ability of the government to correctly project trends
- (c) the ability of advertisers to influence consumers
- (d) all of these

Q8: The dependence on the export of one or two primary products for most of the revenue from exports is most severe in countries in

- a) South Asia
- b) East Asia
- c) Sub-Saharan Africa
- d) Latin America

Q9: Which of the following conditions is violated if there is a free rider problem?

- (a) universality
- (b) exclusivity
- (c) transferability
- (d) enforceability

Q10: Which of the following policies might increase labor intensity in the industry?

- (a) a decline in the cost of credit
- (b) a decline in the minimum wage rate
- (c) a decline in the elasticity of substitution
- (d) all of these

Q11: The portion of a country's overall assets that is directly related to the environment, such as forests and soil quality, is known as

- (a) environmental capital
- (b) debt for nature swaps
- (c) protected areas
- (d) common property assets

Q12: Poverty is better studied with size distribution measures than those based on factor distribution because

- (a) labor income may be highly concentrated in well-paid modern-sector workers
- (b) some poor farmers may receive a sizable share of income in rent
- (c) income from nonmarket activities such as foraging may be important
- (d) all of these

Q13: Evidence presented in the text suggests that birthrates among developing countries are lower with

- (a) higher growth
- (b) higher inequality
- (c) higher GNP per capita
- (d) all of these

Q14: Neutral technological progress occurs when

- a) higher output levels are achieved with the same quantity and combinations of factor inputs
- b) higher output levels are achieved by more capital-intensive methods
- c) higher output levels are achieved by more labor-intensive methods
- d) higher output levels are achieved

Q15: Which of the following is a direct implication of the view that childbearing is an economic decision?

- (a) People will not have additional children unless they can profit from doing so
- (b) Social factors do not affect childbearing decisions
- (c) Compulsory education will increase fertility because educated children have the potential to earn higher salaries
- (d) Fertility should fall with improved opportunities for women to work in jobs outside the home

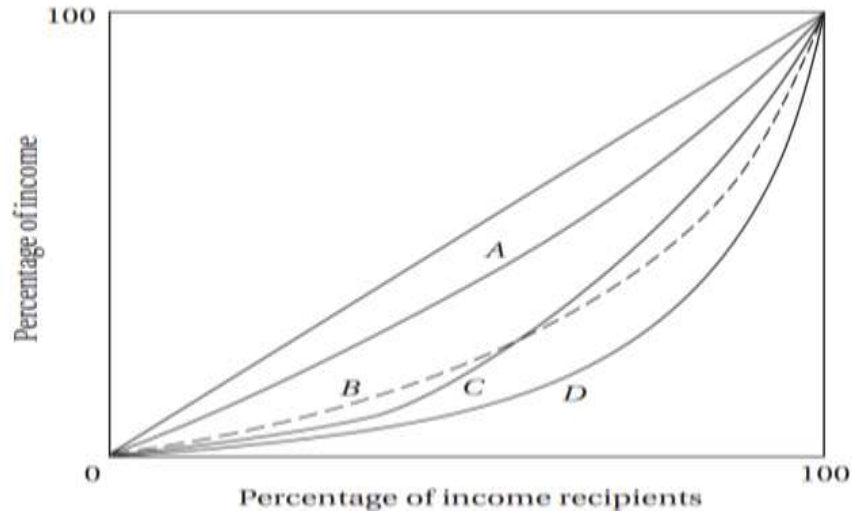
Part B Descriptive Type Questions

Instructions:

- Write your answer in the Supplementary Answer Sheet and submit.
- Marks will be deducted in case of incomplete answers in terms of wrong/no interpretation of curves, notations, wrong sequence, and other such errors

Q16:

- a) Given the Lorenz curve of four countries ABCD in a graph below. Explain the inequality level as per your knowledge gained in the course. [4M]



- b) Compute the coefficient of variation, Gini Coefficient, and draw the Lorenz curve from the data set below. Which country depicts greater inequality and why? [7M]

Country A		Country B	
Number of people	Income	Number of people	Income
250	200	125	100
50	400	25	200
100	600	50	300
50	800	25	400

Q17: Illustrate the Lewis model of modern sector growth in a two-sector economy. [8M]

Q18: Illustrate the problem of pricing public goods with the help of an appropriate diagram and explain the solution inherent to the free-rider problem. [6M]

*****All the Best*****

Birla Institute of Technology & Science, Pilani, Pilani Campus – Rajasthan
Comprehensive Exam (Open Book) ECON F244 [Economics of Growth & Development]

Maximum Marks: 50
Session 2022-23 (II)

Time Duration: 90 Minutes
Dated: 6/May/2023

Instructions:

- Read the questions thoroughly before answering. All questions are compulsory. Please start each question on a new page.
 - In the case of numerical, calculation(s) to arrive at the result(s) and its Interpretation is necessary to get marks.
 - Calculator is allowed. However, the exchange of calculator is not allowed.
 - Make sure you correctly mention your Name, ID, Course, and other details on your answer sheet.
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Part C
Long Answer Type Question

Q1: The 2020 World Development Report (WDR) provides the following information for Singapore and Vietnam:

	Per Capita GDP (\$)	Per Capita GDP (PPP \$)	Population below National Poverty Line (%)	Population below \$1 Day PPP (%)	Poverty Gap at \$1 Day PPP (%)	Gini Index
Singapore	2080	5890	17.7	11.0	3.2	57.1
Vietnam	2010	6330	13.1	< 2	< 0.5	41.4

- a) Explain carefully what each of the entries in the final four columns of this table measures. What concepts are being presented, and what is their importance to economic development? **[6M]**
- b) The table above shows that Singapore and Vietnam are roughly at the same level of economic development as measured by the level of per capita national income. Their performance in terms of poverty indicators is quite different. What factors may contribute to their differing performance? **[4M]**

Q2: For country Z, the production function is given by $Y = A_t K_t^{1/2} N_t^{1/2}$. Where the notations have their usual meanings. In this country, the savings rate is 16%; the population expansion rate is 0.5% per year; the depreciation rate of capital stock is 2.5%; and $A_t = 4e^{0.005t}$. **[15M]**

- a) Find the equilibrium levels of capital per unit of effective labor, output per unit of effective labor, and capital-output ratio.
- b) Discuss the stability of the equilibrium with the help of a graph.
- c) Describe the time paths of per-capita income, the wage rate, the interest rate, and the factor income shares in the steady state.
- d) To what extent the growth of this country complies with the Kaldor facts?
- e) Consider another country Y, where per capita income is (1/16) of per capita income in Z. In what conditions could you state that per capita income was expanding faster in Y than in Z?

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Q3: As per the class discussion on various growth models, *the three major components of economic growth are: capital accumulation, labor force growth, and technological progress.* Derive the final equation of any relevant growth model (including all steps with interpretation), which should contain the direct impact of all three components for explaining economic growth. **[10M]**

Q4: Under globalization, Country D (developing economy) wants to engage in a trade agreement with Country A (Advanced economy). Both have to open each other's markets for each other's products without any restrictions. The officials from both countries discussed and set up a joint study group (JSG) to study the feasibility of having a trade agreement between the two countries. The joint study group, after two years, submitted the feasibility report and concluded that there would be a net loss of having this trade agreement to Country D. Given the conclusion of the report: **[15M]**

- a) If you were a member of JSG, what parameters/indicators would you consider to arrive at the conclusions? Mention at least three criteria in detail.
- b) Given the chosen parameters/indicators in part (a), what values reflect the 'net loss' conclusion of JSG?
- c) State the possible economic reasons (at least three) behind the net losses to Country D from the proposed trade agreement.

*******All the Best*******