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Ph.D. Course Work Examination October-2021 Geography (Paper – III) **RECENT TRENDS IN AGRICULTURAL GEOGRAPHY (New)** Day & Date: Wednesday, 13-10-2021 Max. Marks: 100 Time: 11.00 AM to 02.00 PM Instructions: 1) All questions are compulsory. 2) All questions carry equal marks. Define agricultural geography and explain it's nature. Answer any two of the following questions. 1) Explain scope of agricultural geography. 2) Discuss the approaches to agricultural geography. 3) Give the concept of general land use. Explain physical determinants of the agricultural pattern. Answer any two of the following questions. 1) Discuss the irrigation as non physical determinants of agriculture. 2) Describe the South Asian Genecentre of agriculture 3) Describe South American Genecentre of agriculture. What is intensive farming? Describe it's world distribution and characteristics. Answer any two of the following questions. 1) Explain concept of agricultural productivity. 2) Describe characteristics of plantation agriculture.

3) Explain concept of land capability. **Q.4** Explain Von Thunen's model of agricultural landuse. a) Answer any two of the following questions. b) 1) Explain techniques to determine agricultural productivity. 2) Discuss the concept of crop concentration. 3) Explain concept of Crop combination.

#### Q.5 Discuss the problems of agricultural in India. 10 a) Answer any two of the following questions. b) 10 1) Define primary data and give the methods primary data collection. 2) Explain random sampling techniques.

3) Explain concept of crop diversification with the formula.

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| Ph.D. Course Work Examination October-2021<br>Economics (Paper – III)<br>MODERN THEORIES IN ECONOMICS (OId) |               |                                                                                                           |                                                                                                                                                                       |             |          |
| Day &<br>Time:                                                                                              | Date<br>11.00 | e: Wednesday, 13<br>D AM to 02.00 PM                                                                      | 3-10-2021<br>Л                                                                                                                                                        | Max. Marks: | 100      |
| सूचना                                                                                                       | : 1)<br>2)    | सर्व प्रश्न आवश्यव<br>उजवीकडील अंक                                                                        | क आहेत.<br>पुर्ण गुण दर्शवितात.                                                                                                                                       |             |          |
| Я. 1                                                                                                        | अ)<br>ब)      | आर्थिक वृद्धीच्या र<br>कोणत्याही दोन प्र<br>1) रामसे नियमाचे<br>2) हरोड प्रतिमान<br>3) ए. के. प्रतिमान    | सोलो प्रतिमानाचे परीक्षण करा.<br><b>ग्रश्नांची उत्तरे लिहा.</b><br>वे वर्णन करा.<br>ाचे वर्णन करा.<br>गवर टिप्पणी करा.                                                |             | 10<br>10 |
| प्र.2                                                                                                       | अ)            | मक्तेदारीयुक्त स्प<br>स्पष्ट करा                                                                          | र्धा बाजारपेठ विषयक चेंबर्लीन चा समतोल विषयव                                                                                                                          | n दृष्टीकोन | 10       |
|                                                                                                             | ब)            | <b>कोणत्याही दोन प्र</b><br>1) अल्पाधिकाराती<br>2) बत्रांड अल्पाधि<br>3) अल्पाधिकाराच्य                   | <b>प्रश्नांची उत्तरे लिहा.</b><br>ोल किंमत नेतृत्व प्रतिमानाची चर्चा करा.<br>ाकार प्रतिमान स्पष्ट करा.<br>या एजवर्ध प्रतिमानाचे वर्णन करा.                            |             | 10       |
| Я.З                                                                                                         | अ)<br>ब)      | फ्रांको मोडोगीलिन<br>कोणत्याही दोन प्र<br>1) हॉल हीच अह<br>2) बेन्स च्या किंम<br>3) संपूर्ण खर्च किं      | नी किंमत निश्चिती प्रतिमानाचे मूल्यमापन करा.<br><b>गश्नांची उत्तरे लिहा.</b><br>वालावर टिप्पणी करा.<br>1त मर्यादा सिद्धांताचे मूल्यमापन करा.<br>ठंमत नियम स्पष्ट करा. |             | 10<br>10 |
| Я.4                                                                                                         | अ)<br>ब)      | IS-LM विश्लेषणार्च<br>कोणत्याही दोन प्र<br>1) विदेशी व्यापार<br>2) स्थिर विनिमय<br>3) व्यवहार तोलाच       | वे मूल्यमापन करा.<br><b>ग्रश्नांची उत्तरे लिहा.</b><br>ा गुणांकाचे वर्णन करा.<br>दराचे वर्णन करा.<br>व्या मौद्रिक दृष्टीकोनाचे वर्णन करा.                             |             | 10<br>10 |
| Я.5                                                                                                         | अ)<br>ब)      | मुंडेल फ्लेमिंग प्रति<br>कोणत्याही दोन प्र<br>1) लवचिक विनिग्<br>2) खुल्या अर्थव्यव<br>3) खुल्या अर्थव्यव | तेमानाचे परीक्षण करा.<br><b>ग्रश्नांची उत्तरे लिहा.</b><br>मय दरावर टिप्पणी करा.<br>ग्रस्थेतील राजकोषीय धोरणाचे वर्णन करा.<br>ग्रस्थेतील मौद्रिक धोरणाचे वर्णन करा.   |             | 10<br>10 |

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|               |                 | Economics (Paper – III)<br>MODERN THEORIES IN ECONOMICS (OId)                                                                                                                                                                                                                                                                                           |                 |
|---------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Day &<br>Time | & Dat<br>: 11.0 | e: Wednesday, 13-10-2021<br>00 AM to 02.00 PM                                                                                                                                                                                                                                                                                                           | Max. Marks: 100 |
| Instr         | uctio           | <ul><li>ns: 1) All questions are compulsory.</li><li>2) All questions carry equal marks.</li></ul>                                                                                                                                                                                                                                                      |                 |
| Q.1           | a)<br>b)        | <ul> <li>Examine the Sollow model of economic growth.</li> <li>Answer any two of the following questions in short.</li> <li>1) Elucidate the Ramsay's rule.</li> <li>2) Describe the Harrod model of growth.</li> <li>3) Comment on A K Model.</li> </ul>                                                                                               | 10<br>10        |
| Q.2           | a)<br>b)        | <ul> <li>Explain the Chamberlin's approach towards equilibrium under monopolistic competitive market.</li> <li>Answer any two of the following questions in short.</li> <li>1) Discuss on Price leadership model of oligopoly.</li> <li>2) Elaborate the Bertrand model of oligopoly.</li> <li>3) Describe the Edgeworth model of oligopoly.</li> </ul> | 10<br>10        |
| Q.3           | a)<br>b)        | <ul> <li>Appraise the Franco Modighiani model of pricing.</li> <li>Answer any two of the following questions in short.</li> <li>1) Comment on Hall and Hitch report.</li> <li>2) Elucidate the Bain's limit pricing theory.</li> <li>3) Explain the full cost pricing rule.</li> </ul>                                                                  | 10<br>10        |
| Q.4           | a)              | Evaluate the IS-LM analysis for an open economy.                                                                                                                                                                                                                                                                                                        | 10              |

Ph.D. Course Work Examination October-2021

Q.4 10 Answer any two of the following questions in short. 10 b) 1) Elucidate the Foreign trade multiplier. 2) Elaborate the Fixed exchange rates. 3) Describe the Monetary approach to the balance of payments. Q.5 a) Examine the Mundell-Fleming Model. 10 Answer any two of the following questions in short. 10 b)

- 1) Comment on the flexible exchange rates.
- 2) Elucidate the Fiscal policy in the open economy.
- 3) Discuss on the Monetary policy in the open economy.

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|                  | EC            | Ph.D. Cor<br>ONOMICS OF                                                                          | urse Work Examination October-2021<br>Economics (Paper – III)<br>AGRICULTURE AND CO- OPERATION (New                     | ' <b>)</b> |          |
| Day &<br>Time: 7 | Date<br>11.00 | e: Wednesday, 13<br>AM to 02.00 PM                                                               | 8-10-2021 Max. Ma<br>1                                                                                                  | rks:       | 100      |
| Instruc          | ction         | <b>is:</b> 1) All question<br>2) All question                                                    | ns are compulsory.<br>ns carry equal marks.                                                                             |            |          |
| Q.1              | a)<br>b)      | Describe the rela<br>Write short ans<br>1) Technology in<br>2) Organic Farm<br>3) Cooperative of | ationship between agriculture and economic developme<br>wer. (Any Two)<br>a agriculture<br>ing<br>rredit in agriculture | ent.       | 10<br>10 |
| Q.2              | a)            | Define Production                                                                                | on Function. Explain its use in the study of agriculture                                                                |            | 10       |
|                  | b)            | Write short ans<br>1) Contract Farn<br>2) Agro-industrie<br>3) Globalization                     | s <b>wer. (Any Two)</b><br>ning<br>es<br>and cooperatives                                                               |            | 10       |
| Q.3              | a)            | Define Sustainal                                                                                 | ble Development. Explain it's significance in the contex                                                                | t of       | 10       |
|                  | b)            | Write short ans<br>1) Non-institution<br>2) Agriculture Pr<br>3) Sugar cooper                    | s <b>wer. (Any Two)</b><br>nal sources of agriculture credit<br>oductivity<br>atives in Maharashtra                     |            | 10       |
| Q.4              | a)<br>b)      | What are the spo<br>Write short ans<br>1) Optimum outp<br>2) Dry land farm<br>3) Floriculture    | ecific problems of agro-based industries in India?<br>swer. (Any Two)<br>out combination<br>ing                         |            | 10<br>10 |
| Q.5              | a)<br>b)      | Explain the varie<br>Write short ans<br>1) NABARD<br>2) Agriculture In<br>3) Food Security       | ous principles of cooperation.<br>swer. (Any Two)<br>puts                                                               |            | 10<br>10 |

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## Ph.D. Course Work Examination October-2021 Political Science (Paper – III) MODERN TRENDS IN POLITICS

Day & Date: Wednesday, 13-10-2021 Max. Marks: 100 Time: 11.00 AM to 02.00 PM सूचना : 1) सर्व प्रश्न आवश्यक आहेत. 2) उजवीकडील अंक पुर्ण गुण दर्शवितात. भारतातील बहुजन राजकारणाचे स्वरुप आणि व्याप्ती स्पष्ट करा. 10 अ) प्र. 1 लघुत्तरी प्रश्न (कोणतेही दोन) 10 ब) 1) नागरी समाजाचे स्वरूप दक्षिणी देशांचे राजकारण : राज्याचा पॅटर्न 3) जागतिकीकरणाच्या काळात आंतरराष्ट्रीय राजकारणाचे बदलते स्वरुप नागरी समाजाची भुमिका स्पष्ट करा. 10 प्र.2 अ) लघुत्तरी प्रश्न (कोणतेही दोन) 10 ब) 1) आंतरराष्ट्रीय राजकारणाचा अर्थ 2) बहुजन राजकारणाच्या मर्यादा 3) जागतिकीकरण यूगातील सामाजिक क्लीवेज (1990-2010) भारतातील राज्याचे राजकारण लिहा. 10 अ) प्र.3 लघुत्तरी प्रश्न (कोणतेही दोन) 10 ब) 1) जागतिकीकरणाच्या युगातील राज्याच्या राजकारणाचे बदलते स्वरुप 2) जागतिकीकरण युगातील मार्केट आणि भारतीय राज्यसंस्था 3) समकालीन युगातील अस्मितांचे राजकारण शीतयुद्धानंतरच्या आंतरराष्ट्रीय राजकारणाचे बदलते स्वरुप स्पष्ट करा. अ) 10 प्र.4 लघुत्तरी प्रश्न (कोणतेही दोन) 10 ब) 1) आधुनिक युगातील सामाजिक क्लीवेज (1960–1990) 2) दक्षिणी देशांचे राजकारण : राष्ट्र उभारणीचे पॅटर्न 3) भारतीय राज्याची राजकीय संस्कृती भारत आणि जागतिक राजकारण स्पष्ट करा. प्र.5 अ) 10 लघुत्तरी प्रश्न (कोणतेही दोन) 10 ब) 1) अस्मिता आणि राज्याचे राजकारण

- 2) जागतिकीकरणाच्या युगापूर्वीचे मार्केट आणि भारतीय राज्यसंस्था
- 3) जागतिकीकरणाच्या युगापूर्वीचे राज्याचे राजकारण

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## Ph.D. Course Work Examination October-2021 Political Science (Paper – III) MODERN TRENDS IN POLITICS

Day & Date: Wednesday, 13-10-2021 Max. Marks: 100 Time: 11.00 AM to 02.00 PM Instructions: 1) All questions are compulsory. 2) All questions carry equal marks. Q.1 Explain the nature and scope of Bahujan Politics in India. 10 a) b) Write short answer. (Any Two) 10 1) Nature of Civil Society 2) Politics of Southern Countries: Pattern of State 3) The Changing nature of International Politics in the Globalization era Q.2 Explain the role of Civil Society. 10 a) Write short answer. (Any Two) 10 b) 1) Meaning of International Politics 2) Limitations of Bahujan Politics 3) Social Cleavages in the Globalization era (1990-2010) Q.3 Write the State Politics in India. 10 a) Write short answer. (Any Two) 10 b) 1) Changing Nature of State Politics in the Globalization era 2) Market and Indian State in the Globalization era 3) Identity Politics in Contemporary era Q.4 Explain the Changing nature of International Politics in the post cold war 10 a) era. Write short answer. (Any Two) 10 b) 1) Social Cleavages in the Modem era (1960-1990) 2) Politics of Southern Countries : Patterns of Nation Building 3) The Political Culture of the Indian State 10 Q.5 Explain the India and world Politics. a) 10 b) Write short answer. (Any Two) 1) Identity and State Politics 2) Market and Indian State before Globalization era

3) State Politics before Globalization era

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## Ph.D. Course Work Examination October-2021 Mechanical Engineering (Paper – III) MODERN TOPICS IN MECHANICAL ENGINEERING FROM PERFORMANCE IMPROVEMENT PERSPECTIVE (Old)

Day & Date: Wednesday, 13-10-2021 Time: 11.00 AM to 02.00 PM Max. Marks: 100

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| Instructions: | 1) | All questions are compulsory.    |
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|               | 2) | All questions carry equal marks. |

3) Support the answers by neat sketches wherever necessary.

## **Q.1** a) Explain general considerations for a good design.

#### b) Answer any two questions.

- 1) Explain economics of quality with example.
- 2) Explain QFD steps in detail.
- 3) Write a note on Do's and Don'ts of Six Sigma.

## Q.2 a) Explain QFD in Service industry with suitable examples. 10

## b) Answer any two questions.

- 1) Explain Kano model of quality with suitable examples.
- 2) Explain DMAIC process.
- 3) Mr. Vinod has got the business of printing visiting cards. Each order is considered as a unit. Each order has four defect opportunities i.e. incorrect, typo, damaged or incomplete. Fifty orders have been randomly selected and inspected. Out of the fifty orders, six orders have a problem, and there are a total seven defects out of fifty orders that have been sampled. Calculate defects per million opportunity (DPMO).

| Q.3 | a) | Explain concept of Design Optimization. Explain optimization design of                                                                                           | 10 |
|-----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
|     | b) | <ul> <li>Answer any two questions.</li> <li>1) Explain Robust Design in details with suitable example.</li> <li>2) Write a note on Design Parameters.</li> </ul> | 10 |
|     |    | <ol><li>What is portfolio design? Explain in detail.</li></ol>                                                                                                   |    |
| Q.4 | a) | State the Statistical Process control techniques. Explain any two techniques in detail.                                                                          | 10 |
|     | b) | Answer any two questions.                                                                                                                                        | 10 |
|     |    | 1) Explain process capability with suitable examples.                                                                                                            |    |
|     |    | <ol><li>Write a note on Control of Product during inspection &amp; disposal of</li></ol>                                                                         |    |
|     |    |                                                                                                                                                                  |    |

- rejected products. 3) Write an appreciation of six sigma efforts at
  - i) Ford
  - ií) GE

| Q.5 | a) | Analyze how the following are built into ISO 9001 standard | 10 |
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- 1) Customer satisfaction
- 2) Process Approach
- 3) Employee Involvement
- 4) Continuous improvement

#### b)

- Answer any two questions.
  1) Explain ISO 9001 implementation and certification process.
  2) What is six sigma? Explain the difference between TQM and Six Sigma.
  3) Explain Pareto chart and run chart.