PG/IIS/ECO/202/25

M.A./M.Sc. 2nd Semester Examination, 2025

ECONOMICS

(Theories of Economic Growth)

PAPER – ECO-202

Full Marks : 50

Time : 2 hours

Answer **all** questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

GROUP – A

Answer any **two** questions : 2×2

1. How is the growth rate of a country affected when its propensity to save increases from 30% to 40% and its capital-output ratio decreases from 5 to 4 ?

2. How does the Kaldor model explain the role of income distribution in influencing economic growth ?

3. Distinguish between absolute convergence and conditional convergence.

4. What are the distinctive features of creeping platinum age ?

Answer any **two** questions : 4×2

5. What is golden age equilibrium ? Explain whether the equilibrium is stable or not. $2 + 2$

6. According to Pasinetti, how is the income share of the capitalist class different from the share of profits in the economy ? Explain with reasoning. 4

7. Suppose two countries, A and B, differ only in their savings rate ($S_a < S_b$) but have the same population growth rate (n) and technology.

(*a*) Show graphically how this affects their steady-state levels of capital per worker.

(*b*) Using Solow-Swan logic discuss which country might grow faster and why. 2 + 2

8. Compare and contrast Hicks-neutral and Solow-neutral technical progress in terms of their functional forms and economic implications. How does each form of neutrality influence the role of capital and labour in economic growth ? 2 + 2

Answer any **one** question : 8 × 1

9. Derive the fundamental equation of the Solow-Swan Growth Model and explain the concept of the steady state in this context. Discuss how an economy approaches and remains in the steady state according to the model. 3 + 2 + 3

10. Explain the Robinson's growth model from income and expenditure point of views. Interpret the equilibrium condition of this model. 6 + 2

GROUP–B

Answer any two of the following questions : 2 × 2

11. Calculate the growth rate of real per capita income for the year 2024 if the nominal aggregate income for 2023 and 2024 are respectively Rs. 1000000 and Rs. 1200000, rate of increase in general price level is 4.75% per annum and population growth rate is 1.25% per annum.

12. Mention the basic features of a pure public institution. A public institution with congestion property is a pure public good. Is it correct? 1 + 1

13. Define Learning by Doing and Learning by Investing in relation to endogenous growth theory.

14. Write down the expression of households' total budget constraints in the Ramsey model. Derive the households' budget constraint in per capita terms. 1 + 1

Answer any **two** of the following questions : 4 × 2

15. Explain how physical capital helps in generating knowledge capital to ensure perpetual positive growth rates in per capita income in an endogenous growth framework.

16. Discuss how the introduction of human capital into the production activity makes perpetual positive growth rate of income.

17. Define Conservation Capital. Mention three advantages of producing conservation capital.

18. What are the differences between a Cobb-Douglas production function and an AK type production function in terms of returns to capital, returns to scale and output elasticity of capital ?

Answer any **one** of the following question : 8×1

19. Using an intertemporal utility function derive the expression for rate of growth of per capita consumption expenditure under Ramsey model in a decentralised system.

20. Discuss how the incorporation of good public system helps in generating positive growth of per capita consumption in the long run under the absence of any variable income tax.

[Internal Assessment — 10 Marks]
