

Centre for Development Studies
Thiruvananthapuram

MA Applied Economics
ADMISSION EXAMINATION 2018

Roll Number:

--	--	--	--

Question Booklet Series:

A

Read the instructions carefully before answering the questions

- This booklet contains **50 objective questions** with multiple choices in answers. All questions are compulsory and **allowed time is two hours**.
- Each correct answer carries **two** marks and for each wrong answer **one** mark will be **deducted**. Non-attempted questions carry **zero mark**.
- Write your **Roll Number** in the space provided on the top of this booklet.
- The question booklets are in four series (**A,B,C,&D**). The series code is displayed on the top of this page as well as on the top right corner of every page.
- Write your **Roll Number** and **Question Booklet Series** code in the **Answer Sheet** in the space provided.
- Answer the questions by writing the alphabet (**A,B,C, or D**) in capital letters, corresponding to your answer, in the **Answer Sheet** against the question number. If you mistakenly mark a wrong choice, you can strike it out using "multiplicative sign" (**×**), and then write the correct choice in the remaining space.
- Use a **ballpoint pen** (black or blue ink) to mark answers.
- Please do not make any stray marks on the **Answer Sheet**.
- Return the **Answer Sheet** to the invigilator at the end of the examination. Candidates can take the **Question Booklet** and **Hall Ticket** with them after the examination.
- **Last page** of this booklet can be used for doing **rough work**.

1. India is the largest exporter of _____ in the world.
 - A. Cotton
 - B. Marine products
 - C. Beef
 - D. Sugar
2. Prior to the introduction of the Goods and Services Tax (GST), there were a number of Central and State levies. Which of the following is **NOT** a Central levy?
 - A. Customs Duty
 - B. Excise Duty
 - C. Service Tax
 - D. Entry tax and Octroi
3. The following is **NOT** a service exports from India
 - A. Health related travel to India
 - B. Wages and salaries remitted to India by Indian workers abroad
 - C. Landing fees paid by foreign airlines
 - D. Salary received by Chinese Ambassador to India
4. The most important source of revenue, in terms of share in total revenue, to Government of India is _____.
 - A. Goods and Services Tax (GST)
 - B. Income Tax
 - C. Customs duty
 - D. None of the above
5. In the financial year 2014-15, a firm in India increased its inventory spending on non-perishable goods. What could be its effect on India's GDP?
 - A. It will increase the GDP of some later year in which the goods will be sold.
 - B. It will increase the GDP in 2014-15.
 - C. It will increase the GDP of both 2014-15 and the year in which the goods are sold.
 - D. None of the above.
6. In the Classical model of National Income determination, what brings the supply and demand for goods and services into equilibrium in a closed economy?
 - A. Movement of prices of goods and services.
 - B. Government chooses to purchase that quantity of goods and services which ensures equilibrium.
 - C. Movement of interest rate.
 - D. None of the above

7. What will be the impact of a decline in population growth in Solow model on long run level of consumption per worker?
- A. It will increase.
 - B. It will decrease.
 - C. It will not be affected.
 - D. The change cannot be predicted.
8. The 'Quantity Theory of Money' is associated with _____ function of money.
- A. store of value.
 - B. unit of account.
 - C. medium of exchange.
 - D. None of the above.
9. In the presence of non-zero inflation rate, which of the following affects the money demand?
- A. Only output.
 - B. Output and nominal interest rate.
 - C. Output and real interest rate.
 - D. Only real interest rate.
10. The Phillips curve shows that
- A. Inflation and unemployment are negatively related.
 - B. Inflation and employment are negatively related.
 - C. Employment and interest rate are negatively related.
 - D. Unemployment and interest rate are negatively related.
11. The firms invest if Tobin's q is _____.
- A. Negative fraction.
 - B. Positive fraction.
 - C. Equals to one.
 - D. Greater than one.
12. The demand for a monopolist's output is $\frac{2000}{(P+3)^2}$, where P is its price. It has constant marginal costs equal to ₹6 per unit. What price will it charge to maximize its profits?
- A. ₹9
 - B. ₹15
 - C. ₹18
 - D. ₹21

13. "Every finite simultaneous move game must have pure-strategy equilibrium, if the information is complete". This statement is:
- A. False
 - B. True
 - C. Incomplete
 - D. None of the above
14. What happens in a Cournot duopoly model, having identical firms, if the government imposes a per-unit tax on output?
- A. The industry output rises
 - B. Individual output of the firm rises
 - C. Individual output of the firm falls
 - D. Price falls
15. Public Good is _____.
- A. Non-excludable only
 - B. Non-rival only
 - C. Non-excludable but rival
 - D. Non-excludable and non-rival
16. Mr. J's utility function is $U(x, y) = x^2 + y^2$. His money income is ₹1000. The price of the good x is ₹20 and the price of good y is ₹10. What is his optimal bundle?
- A. $x = 0, y = 100$
 - B. $x = 50, y = 0$
 - C. $x = 20, y = 40$
 - D. $x = 40, y = 20$
17. When my income was ₹100,000, I paid ₹10,000 in taxes. When my income became ₹200,000, I paid ₹40,000 in taxes. My marginal tax rate is:
- A. 10%
 - B. 20%
 - C. 30%
 - D. 40%
18. What is stackelberg competition?
- A. Price Competition
 - B. Price leadership
 - C. Quantity leadership
 - D. All of the above

19. The demand for good x is inelastic. An increase in its price would cause the total expenditure on x to_____.
- A. increase
 - B. decrease
 - C. remain constant
 - D. Can't say anything.
20. Which of the following statements about mean (μ) and variance (σ) of Binomial distribution is not true?
- A. $\mu = 5.00, \sigma = 2.50$
 - B. $\mu = 6.00, \sigma = 4.20$
 - C. $\mu = 3.75, \sigma = 2.81$
 - D. $\mu = 4.00, \sigma = 9.00$
21. which of the following statemetns about regression coefficients of x on y and y on x is correct?
- A. Coefficient of x on y is 3.1 and that of y on x is 0.9
 - B. Coefficient of x on y is 0.7 and that of y on x is -0.4
 - C. Coefficient of x on y is 1.0 and that of y on x is 1.0
 - D. All are incorrect
22. Let Q_i be the i^{th} quartile of a distribution. The distribution is said to be positively skewed if
- A. $Q_3 - Q_2 < Q_2 - Q_1$
 - B. $Q_3 - Q_2 > Q_2 - Q_1$
 - C. $Q_3 + Q_2 = Q_2 + Q_1$
 - D. $Q_3 - Q_1 > Q_2 - Q_1$
23. If a hypothesis is rejected at 0.025 level of significance, it _____
- A. must be rejected at any level.
 - B. must not be rejected at 0.01 level
 - C. must be rejected at 0.01 level
 - D. may or may not be rejected at 0.01 level.
24. Let $A = \{1, 2, 3, 4\}$ and $B = \{2, 4, 6, 8\}$ be two subsets of a set N , then the symmetric difference between A and B , denoted by $A \Delta B$, is
- A. $A \Delta B = \{1, 3\}$
 - B. $A \Delta B = \{6, 8\}$
 - C. $A \Delta B = \{1, 3, 6, 8\}$
 - D. $A \Delta B = \{2, 4\}$

25. Consider the function $f(x) = x^3 + \frac{1}{x^3}$. Which of the following statement is correct?
- A. $\max f(x) = 2, \min f(x) = -2$
 - B. $\max f(x) = -2, \min f(x) = 2$
 - C. $\max f(x) = \infty \min f(x) = -\infty$
 - D. All are incorrect

Questions 26 to 30 are based on the following passage. Read the passage carefully to answer the questions

Technological Progress and Economic Growth

Economic growth refers to growth in GDP per person and hence it depends on the growth rates of aggregate GDP and population. Higher economic growth over a long period is essential for a poor country to get out of massive poverty. Technological progress is considered to be the source of long run economic growth. Without technological progress, growth will stop after some time due to the operation of diminishing returns in the accumulation of factors of production such as physical and human capital. Technological progress helps to produce more output from a given level of inputs. Thus it enhances factors' productivity and thereby their rewards. This stimulates further factor accumulation. Technological progress, thus, contributes to growth in GDP directly as well as indirectly by incentivising investment in human and physical capital.

Technology refers to the set of knowledge used for combining raw materials for producing output, and technological progress means improvement in this set of knowledge. Two important features of technological knowledge, namely non-rivalry and partial excludability, is relevant in this context. Non-rivalry of knowledge means that same set of knowledge can be simultaneously used in several locations, i.e use of knowledge by one person in no way prevents it's use by others. Knowledge is also an input into the production of knowledge as research labs use existing stock of knowledge in a particular field to produce new knowledge in that field. Partial excludability refers to the free use of existing stock of knowledge in research labs for producing new knowledge, though their commercial application may be restricted by the patent right. These two features of knowledge have important implications for the growth theory. First, it generates knowledge spillovers, a positive externality in which creation of knowledge by one person also benefits others for which they do not make any payment. Second knowledge can be accumulated without any bound. This implies that any chemical principle will remain there even after the death of the chemist who invented it, though the skill set as a chemist will not. These two features of knowledge suggest that a scientist working in the research lab has access to ever increasing stock of knowledge, which increases his/her productivity. This ever increasing productivity in research labs, it is argued, maintains the private incentive to invest in R&D. This in turn sustains technological progress and thereby economic growth.

26. In 2015-16 GDP of country A grew by 10% and population by 2.5%, then the per capital GDP growth rate is _____.
A. 7.5%
B. 10%
C. 12.5%
D. 5%
27. Technological progress sustains long-run economic growth by _____.
A. increasing the demand
B. preventing the operation of diminishing returns to factor accumulation
C. increasing the rate of profit
D. decreasing the rate of depreciation
28. A scientist working today is more productive than one working 100 years ago, because of _____.
A. access to greater stock of knowledge.
B. better education.
C. higher remuneration.
D. access to Internet.
29. Non-rival nature of knowledge implies that opportunity cost of knowledge is _____.
A. Zero
B. Value of next best alternative foregone.
C. Value of output foregone
D. Value of output produced.
30. Incentive to private investment in R&D is maintained because _____.
A. Economy is growing faster
B. Investment in R&D is increasing
C. Productivity of scientists is increasing
D. Supply of scientists is increasing

Questions 31 to 35 are based on the following passage. Read the passage carefully to answer the questions

Economic Growth and Demographic Transition

A major part of the economic history of the world is characterised by Malthusian stagnation - a long phase during which growth rate of income per capita was almost zero. During this phase resources available per person remained almost constant because whenever there was an expansion of resources, due to technological progress or discovery of more fertile land, that was offset by increased

population. However, during the last two centuries, with the advent of industrial revolution, the pace of technological progress increased significantly, allowing a positive growth in income per capita. Various regions of the world departed from the Malthusian trap and experienced a considerable rise in the growth rate of income per capita. Later, industrial revolution generated demand for skilled labour and the increased role for human capital in the production process brought about demographic transition, resulting in significant reduction in population growth.

Demographic transition occurred with a sharp reduction in fertility rate, occurred simultaneously in several countries in the 1870s. The decline in the infant and child mortality rates has been a dominant explanation for the declining fertility rate in many developed countries, with notable exception of France and United States. However, this view appears to be inconsistent with historical evidence. The mortality decline in Western Europe started nearly a century before the decline in fertility and was associated initially with increasing fertility rates in some countries (e.g. England) and non-decreasing fertility rate in others.

Another explanation for the demographic transition is the rise in income, an outcome of higher economic growth. The argument is the negative substitution effect of income increase outweighed its positive income effect, resulting in a net decline in fertility rate. The negative substitution effect was dominant due to the increased opportunity cost of child-rearing. The factors contributed to the increased opportunity cost of child-rearing include greater labour market opportunities owing to industrial revolution, higher income due to increased productivity - an outcome of technological progress, and reduction in the male-female wage gap. Further, it is also argued that income elasticity with respect to child quality (education level) is greater than that with respect to child quantity, and hence a rise in income led to a decline in fertility rate along with rise in investment in each child.

Thus the gains in productivity due to technological progress and increased accumulation of human capital were thus liberated from the counterbalancing effect of population growth. This paved the way for the emergence of modern sustained economic growth. However, the timing and pace of industrial expansion and demographic transition varied significantly across regions, resulting in significant income differences among regions over time.

31. According to the passage, the reason for the Malthusian trap is:

- A. Absence of technological progress
- B. Absence of fertile land
- C. Resource expansion offset by population growth
- D. High population growth

32. During the post Malthusian phase, income per capita recorded sustained growth because of
- higher technological progress offset the impact of population growth
 - slower population growth
 - higher technological progress and population growth
 - none of the above.
33. Which of the following *per se* cannot be a reason for the increased opportunity cost of child-rearing during the post Malthusian era.
- Increased demand for labour
 - Higher productivity due to technological progress
 - Reduction female-male wage gap
 - Higher per capita income.
34. According to the passage, during the Malthusian phase a society having higher level of technological progress ultimately ended up in:
- Greater population
 - Higher level of income
 - Become more developed
 - None of the above
35. Positive income effect of higher income on fertility include
- More resources to take care of more children
 - More resources to educate children
 - More resources to parental consumption
 - None of the above.

Questions 36 to 40 are based on the Table 1. Read the Table carefully to answer the questions

Trade between India and ASEAN

Table 1: India's Trade Balance (in 1000 US\$) with ASEAN Member Countries

Year	Brunei	Cambodia	Indonesia	Lao	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
2004	4501	16519	-1222071	861	-1174279	-297987	200417	940664	106679	461638
2005	3563	20926	-1621921	6467	-1292049	-371915	278914	2268690	-137332	506087
2006	-181257	46607	-1700874	1985	-3324546	-578610	388068	947398	-199801	714271
2007	-225279	43582	-2881320	2859	-3870036	-646310	397876	-496687	-518462	1088343
2008	-308707	49583	-3752452	4066	-4418629	-668934	527386	574903	-651830	1441002
2009	-463735	37819	-4546962	26725	-1465555	-973642	354348	724960	-1065079	1390595
2010	-185891	53408	-5118969	-11937	-2410137	-849568	407164	1859952	-1780577	1517780
2011	165679	81160	-7508199	-56204	-5139810	-806185	556342	7671462	-2191866	1953100
2012	-905862	99956	-7877162	-116420	-6547839	-819333	629010	6399337	-1914451	1712675
2013	-725811	123971	-9405830	-50019	-3790970	-623371	1065262	7256897	-1245210	3160946
2014	-900174	137640	-10740124	3985	-6261911	-524224	1036219	2676250	-2242417	3745464

36. India's trade with the ASEAN over the period 2004-14 is experiencing
- A. Deficit
 - B. Surplus
 - C. Balance
 - D. Need more information
37. India is consistently having trade surplus over the period 2004-14 with
- A. Indonesia, Malaysia and Thailand
 - B. Cambodia, Philippines, Singapore and Vietnam
 - C. Indonesia, Malaysia and Myanmar
 - D. Cambodia, Philippines and Vietnam
38. With which country and year India had maximum trade surplus?
- A. Indonesia, 2014
 - B. Vietnam, 2014
 - C. Singapore, 2011
 - D. Indonesia, 2011
39. With which ASEAN country India is having a continuously increasing trade deficit over the period 2004-14?
- A. Indonesia
 - B. Malaysia
 - C. Myanmar
 - D. Thailand
40. India's trade deficit is decreasing in recent years with _____.
- A. Indonesia
 - B. Malaysia
 - C. Myanmar
 - D. Thailand

Questions 41 to 45 are based on the following passage. Read the passage carefully to answer the questions

Gender Symmetry

One of the main hindrances to an effective response to gender based violence is the misconception that the violence that is perpetrated by males against females is symmetric to or the same as the violence perpetrated by females against males. These perceptions are related to exaggerated stances that are undertaken by politicians, journalists and the groups claiming greater rights for men. This assumption of 'gender symmetry' has led to increased incarceration of females for

assaulting partners. It also has implications for the judiciary and child protection services as they need to understand that women are trying to protect their children from abuse and the circumstances in which this violence occurs should be taken into account. The health outcomes for women and men in violent relationships are distinctly gendered as women are more likely to suffer from adverse health outcomes as compared to men. The premise that women are as violent as men contradicts the fact that in every other arena of society male violence is dominant. Gender symmetry is a fallacious assumption that could impede the development of a policy response to gender based violence.

41. Why is it a misconception that there is symmetry of violence between men and women?
 - A. Politicians, journalists and men's rights groups promote the view
 - B. Violence between men and women is structured by unequal social relations
 - C. Men are naturally more violent than women
 - D. Because women are involved in child care and they are unable to retaliate
42. Why does the assumption of 'gender symmetry' hinder an effective response to gender based violence?
 - A. It suggests that gender is not the root cause of the violence
 - B. It leads to incarceration of women for violence they did not commit
 - C. It is supported by powerful interests groups such as politicians, journalist and men's rights groups
 - D. Because it pits men against women and brings more violence against women
43. Why do the judiciary and child protection services need to understand the circumstances in which violence occurs?
 - A. The circumstances would show that women and men are equally powerful in families
 - B. They would reveal that all gender based violence is enacted by men against children
 - C. They would reveal the individual / personal factors leading to violence
 - D. They would help understand the social determinants of violence
44. Why do men's groups want to claim more rights for men?
 - A. There has been a gradual erosion of men's legitimate rights in society
 - B. They want to correct an imbalance gender based power in society
 - C. They seek to protect the gender based power of men in society
 - D. Because men are increasingly becoming victims of violence by women

45. Why are women more likely than men to suffer from adverse health outcomes as a result of violent relationships?
- A. Women are too weak to be able to inflict any major injuries on men
 - B. Women are economically dependent on men and hence they fear seeking help
 - C. The systemic nature of violence weakens women's ability to respond and protect themselves
 - D. Women are less healthy than men and violence worsens their health conditions

Questions 46 to 50 are based on the following passage. Read the passage carefully to answer the questions

Primitive Accumulation

Primitive accumulation as defined by Marx is the historic pre-condition of capitalism, a process by which the producer is separated from his/her means of production. This process leads to the condition of double freedom which is necessary for capitalistic production - workers are free to sell their labour power and also free from their mode of production. Although Marx draws this concept from the Enclosure movement in Europe, he does not dismiss the idea that this expropriation assumes different aspects in different countries, and runs through its various phases in different successions, and at different historical periods. Byres argues that primitive accumulation can be understood through two interrelated movements within an overall process: on the one hand, a transfer of assets (land, machinery, money etc) by non-market means from non-capitalists to potentially capitalist classes with state mediation. On the other hand, it refers to the separation of independent peasants and artisans from their land and means of production to create a mass of people unable to reproduce themselves without selling their labour-power. In India, the historical process of primitive accumulation began with the advent of British colonizers. In the pretext of direct taxation, they mobilized peasants to work for their cash crop growing plantations. Post-independence, the expropriation was carried out mainly through state intervention in the form of land acquisition for industries, mining, conservation of forests and natural resources resulting in a landless gentry without sufficient compensation disposed to work as wage labourers which was mainly informal in nature. Immediately after independence, agriculture was given a lot of priority and the foremost objective was land redistribution from landed class to the landless people through the land reforms act. However, rural India is characterized semi-feudal relations of production owing to the inter-linkages among the land, labour and credit market. This rendered the land reforms ineffective for the country as a whole. Due to high inter-linkages and inability to access formal loans from the banks by small and marginal farmers, the land remained as a mortgage to the erstwhile landlords in lieu of credit. This resulted in a vicious cycle of usury and exploitation. Even today, the inequality in land holdings is very high in India.

46. Marx believed that the nature of "primitive accumulation" is time and space invariant.
- A. The above statement is correct
 - B. The above statement is incorrect
 - C. The above statement is irrelevant to the passage
 - D. It's not possible to validate (or invalidate) the above statement from the passage
47. Byres argued that "primitive accumulation" is a process of expropriation
- A. The above statement is correct
 - B. The above statement is incorrect
 - C. The above statement is irrelevant to the passage
 - D. It's not possible to validate (or invalidate) the above statement from the passage
48. In post-Independent India, primitive accumulation continued due to
- A. colonial behavior
 - B. capitalistic mode of production
 - C. direct taxations
 - D. rural inter-linkages
49. In India, dispossession intrinsic to "primitive accumulation" started
- A. with India's independence in 1947
 - B. since the British colonized India
 - C. after land reforms
 - D. from time immemorial
50. At present, the concept of "primitive accumulation" is obsolete for India.
- A. The above statement is correct
 - B. The above statement is incorrect
 - C. The above statement is irrelevant to the passage
 - D. It is not possible to validate (or invalidate) the above statement from the passage

Place for rough work