

**INDIAN INSTITUTE OF FOREIGN TRADE
M.A. ECONOMICS (SPECIALIZATION IN TRADE AND
FINANCE) ADMISSION TEST – 2018**

ROLL NO. _____

NAME _____

SIGNATURE _____

Time: 2 hours 30 minutes

Marks: 100

INSTRUCTIONS:

1. This is a **Question-cum-Answer Booklet**.
2. This Booklet has **two parts: Part 1 has 25 multiple choice questions** carrying 1 mark each and **Part II has 5 descriptive questions** carrying 15 marks each.
3. There will be no negative marking.
4. **Roll Number, Name and Signature** must be indicated clearly in the space provided in **this Booklet**.
5. Every multiple choice question must be answered by clearly putting a **Single Circle** on the correct option.
6. **Descriptive questions must be answered strictly in the space provided.** No extra sheet shall be provided under any circumstances.
7. Answers to descriptive questions should be **analytical** and based on **appropriate economic theories**. Students are encouraged to draw appropriate diagrams and use mathematical models wherever applicable.
8. Only **Ballpoint Pen** should be used for marking answers.
9. Use of calculators, slide rules, weight / measurement tables, etc. is not permitted.
10. No stray marks should be made anywhere on this Booklet. **Rough Work** can be done in the space provided **at the end of this Booklet**.
11. **This Booklet must be submitted to the invigilator at the end of the examination.**
12. No clarifications of any sort regarding the questions are permitted in the Examination Hall.

Part – 1 (Multiple Choice Questions)

Circle the correct alternative:

(25x1=25)

1. Write the gradient vector of the following function:

$$f(x,y,z) = x^2 + y^3 + z^4$$

- (a) $[3y^2 \ 2x \ 4z^3]$
- (b) $[x \ y^2 \ z^3]$
- (c) $[2 \ 3 \ 4]$
- (d) $[2x \ 3y^2 \ 4z^3]$

2. Find $\int (2e^{2x} + \frac{14x}{7x^2+5}) dx$

- (a) $e^{2x} + \log(7x^2 + 5) + c$
- (b) $4e^x + \log(7x^2 + 5) + c$
- (c) $14 + \log(7x^2 + 5) + c$
- (d) $4e^x + 14x^2 + \log(7x^2 + 5) + c$

3. The function $z = (x+y)^2$ is

- (a) Linear
- (b) Concave
- (c) Convex
- (d) None of the above

4. Find the derivative of $y = (\sin x)^{x^3}$

- (a) $(\sin x)^{(x^3-1)} \{x^3 \cos x + 3x^2 \ln(\sin x)\}$
- (b) $(\sin x)^{(x^3-1)} \{x^3 \cos x + 3x^2 \sin x \ln(\sin x)\}$
- (c) $(\cos x)^{(x^3-1)} \{x^3 \cos x + 3x^2 \sin x \ln(\sin x)\}$
- (d) None of the above

5. Compute the area of the region enclosed by the graphs of the equations $y = x^2$ and $y = x+2$.

- (a) $5/3$
- (b) $9/2$
- (c) $8/5$
- (d) None of the above

6. In a University, 80% of the students applying for MA in Economics are from BA (Honours) in Economics and 40% have studied Economics at 12th standard. If 30% of the students have studied Economics at 12th standard and are also from BA (Honours) in Economics, what proportion of the students have not studied Economics at the 12th standard and neither have BA (Honours) in Economics degree?
- (a) 2 percent
(b) 5 percent
(c) 8 percent
(d) 10 percent
7. If the vertices of a triangle are (5,-2), (6,4) and (7,-2), then the triangle is:
- (a) Isosceles triangle
(b) Equilateral triangle
(c) Right-angled triangle
(d) None of the above
8. Suppose it costs every owner C to extract each unit of a non-replenishable resource. Under competition, price will rise at a faster rate than the rate of interest. This statement is:
- (a) True
(b) False
9. The total cost of a firm is given by

$$TC = 8000 + 1000q - 500q^2 + \frac{2}{3}q^3,$$
 where q denotes the output level. At what level of output, marginal and average variable costs are equal?
- (a) 375
(b) 405
(c) 325
(d) 350

10. Indo-Pacific Inc. manufactures and sells lumber, plywood, veneer, particle board, medium density fibre board and laminated beams. The Company has estimated the following multiplicative production function for basic lumber products in the South Indian market using monthly production data over the past two and one-half years (30 observations):

$$Q_0 = b_0 L^\alpha K^\beta E^\gamma$$

where Q = output, L = labour input in worker hours, K = capital input in machine hours, and E = energy input. Each of the parameters of this model was estimated as:

$$\alpha = 0.4; \beta = 0.4; \gamma = 0.2 \text{ and } b_0 = 0.9$$

Estimate the effect on output of a 1 percent decline in worker hours (holding K and E constant).

- (a) -0.2 percent
 - (b) -4 percent
 - (c) 0.4 percent
 - (d) None of the above
11. Anima is a risk averse investor. She has Rs.1 lakh, which she must allocate between government securities and common stocks. If she invests it all in government securities, she will receive a return of 5 percent, and there is no risk. If she invests it all in common stock, she expects a return of 10 percent, and there is considerable risk. Which of the following statements is true with regards to her preference between risk (plotted on the horizontal axis) and return (plotted on the vertical axis) and the corresponding budget line?
- (a) Budget line is positively-sloped straight line and indifference curve is also positively-sloped but convex to the horizontal axis.
 - (b) Budget line is positively-sloped straight line and indifference curve is also positively-sloped but concave to the horizontal axis.
 - (c) Budget line is negatively-sloped straight line and indifference curve is positively-sloped and concave to the horizontal axis.
 - (d) Budget line is negatively-sloped straight line and indifference curve is also negatively-sloped but concave to the horizontal axis.
12. If a lump-sum subsidy (i.e., one independent of output) is granted to every firm in a competitive industry, the output of each of the original firms will fall. This statement is:
- (a) True
 - (b) False

13. Suppose $C = 1000 + 0.9Y$, $G = 400$, $I = 100$, $(X - IM) = 0$, and there are no income taxes (symbols have standard interpretation). If government purchases increase by 100, equilibrium GDP will
- (a) rise by 25%
 - (b) rise by 1000
 - (c) rise by a factor of 10
 - (d) None of the above
14. The IS function and LM function of an economy are estimated to be $Y = 2860 + 0.5Y - 60i$ and $Y = 2600 + 400i$ respectively. The investment function in the economy is $800 - 50i$ (symbols have standard interpretation). If the government wants to increase the output by 10% by raising the government expenditure, what is the crowding out of investment in the economy?
- (a) 52.5
 - (b) 55.5
 - (c) 62.5
 - (d) 500
15. Suppose 1 extra point of unemployment reduces inflation by 0.5 point – holding inflation expectations constant. If the sacrifice ratio is about 4 (sacrifice ratio is defined as loss to GDP due to 1 percent disinflation in the economy), Okun's coefficient is:
- (a) 0.5
 - (b) 1
 - (c) 2
 - (d) None of the above
16. Suppose that an Italian working in India renounces his Italian citizenship and is granted Indian citizenship. Which of the following will happen?
- (a) Italian GDP will fall; Indian GNP will rise
 - (b) Italian GNP will fall; Indian GNP will rise
 - (c) Italian GDP will fall; Indian GDP will rise
 - (d) Italian GNP will fall; Indian GDP will rise
17. To promote digital transaction in the economy, RBI relaxes restrictions in credit card available in the economy. RBI's policy will affect:
- (a) aggregate money demand in the economy
 - (b) aggregate money supply in the economy
 - (c) velocity of money in circulation
 - (d) none of the above

18. The poverty gap is the

- (a) Absolute number of people below the international poverty line.
- (b) Percentage of the population below the international poverty line.
- (c) Percentage of a country's total consumption necessary to bring everyone in the country living below the poverty line, up to the poverty line.
- (d) Consumption (measured in domestic currency) necessary to bring everyone living below the poverty line up to the poverty line.

19. Suppose migrants are risks averse, then in the Harris-Todaro model, in equilibrium, the expected urban wages will be _____ the rural wage rate

- (a) Greater-than
- (b) Equal to
- (c) Less-than
- (d) None of the above

20. "Flow of Chinese goods in USA has increased wage inequality in USA". This statement is based on:

- (a) The Rybczynski Theorem
- (b) The Stolper-Samuelson Theorem
- (c) The Factor-Price Equalization Theorem
- (d) None of the above

21. Suppose you flip a weighted coin (probability of heads is p and probability of tails is $q = 1-p$) n times. The probability that you get a particular ordering of k heads and $n-k$ tails is

- (a) $p^k q^{n-k}$
- (b) $\binom{n}{k} p^k q^{n-k}$
- (c) $\binom{n}{k} pq$
- (d) None of the above

22. Three companies P, Q and R supply 25%, 35% and 40% of the computer hardware parts to a B-school. Past experience shows that 5%, 4% and 2% of the hardware parts produced by these companies are defective. If a hardware was found to be defective, what is the probability that the same was supplied by P?

- (a) 44/69
- (b) 11/69
- (c) 13/24
- (d) None of the above

23. The Laspeyres and Paasche index are examples of:

- (a) Weighted quantity index only
- (b) Weighted price index only
- (c) Aggregate index numbers
- (d) Weighted index numbers

24. What is the Power of a test?

- (a) The probability that we correctly accept a true null.
- (b) The probability that we correctly reject a false null.
- (c) The level of significance of a test
- (d) Minimization of Type I and Type II errors

25. Sum of weights in exponential smoothing is

- (a) Greater than 1
- (b) Equal to 1
- (c) Less than 1
- (d) None of the above

Part – II (Descriptive Questions)

Answer in the space provided:

1. Recently the US imposed a 25 percent tariff hike on 1300 Chinese products covering several manufacturing segments like aerospace parts, high definition colour video monitors, electromagnets used in MRIs, machinery to make or process textiles and so on. In retaliation, China increased import tariffs on several US export items like soybeans, aircraft and vehicles worth an estimated \$50 billion. How will the tariff war impact the welfare of the countries? (15)

Answer:

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2. The restaurant business in town is a monopolistically competitive industry in long-run equilibrium. One restaurant owner asks for your advice. She tells you that, each night, not all tables in her restaurant are full. She also tells you that if she lowered the prices on her menu, she would attract more customers and that doing so would lower her average total cost. Should she lower her prices? Draw a diagram showing the demand curve, marginal revenue curve, marginal cost curve, and average total cost curve for this restaurant to explain your advice. Show in your diagram what would happen to the restaurant owner's profit if she were to lower the price so that she sells the minimum-cost output. (15)

Answer:

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3. Suppose you are the Chief Economist of a leading FMCG Company with business interest both in India and abroad. Recently you have come across the following news in the context of the global economy:

Oil prices are approaching \$60 and major energy companies are signaling fresh optimism that they can hold the recent gains, a dramatic reversal from a few months ago when prices were languishing. Unlike previous years, when oil often dragged down other financial markets, resurgent global economic growth is pushing U.S. stock markets to record highs and lifting oil prices. Goldman Sachs Group Inc. said in a research note earlier this month that rising consumption, especially in India and China, prompted the bank to boost its forecast for global oil demand—Goldman analysts now expect it will increase by 1.7 million barrels a day this year from 2016. “The broader global economic picture has been one that continues to strengthen,” said Michael Cohen, head of energy commodities research at Barclays. “There are only a very small number of countries that are not showing positive global growth.” Nearly half of the 35 major equity indexes representing the world’s biggest stock markets by value have reached multiyear highs this year. Also, strong factory activity in China has boosted copper—a widely watched barometer of global economic health—to near a three-year high.

Demand was a question mark heading into this year. Low prices in 2015 and 2016 fuelled “scorching” increases in consumption and some weren’t sure whether that would continue, said Doug Terreson, head of energy research at Evercore ISI. “But with oil prices low and the global economy strengthening, we had another great demand year,” he said. Increased demand has pulled stockpiles of crude oil out of storage this year, even as U.S. shale producers have ramped up output and pushed weekly production to record highs. Last month, crude stockpiles fell to the lowest level since the beginning of 2016, according to the U.S. Energy Information Administration. (Source: The Wall Street Journal, November 29, 2017)

In the light of each of the above news, what should be your advice to the top management of the FMCG Company about the likely behaviour of domestic (India) interest rate, exchange rate and the domestic growth in the coming months? Assume that RBI follows a pure flexible exchange rate. (15)

Answer:

The first of these is the fact that the
government has been unable to
bring about a general agreement
on the part of the various
groups and individuals who
are interested in the
subject. This is due to the
fact that the government has
not been able to bring about
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4. Since the Indian economy is heavily dependent on cash, as only less than half the population uses banking system for monetary transactions, demonetisation has hit trade and consumption hard. With people scrambling for cash to pay for goods and services, the move had an adverse impact on the country's growth and output. Consumption makes up for around 56% of India's GDP; hence, a drop in spending reduced growth. This has also lead to behavioural changes in households' savings and their consumption pattern, say economists.

Use macroeconomic arguments to explain why growth has fallen due to demonetisation. What are the channels through which it may recover? Explain.

(7+8=15)

Answer:

1. The first part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future.

2. The second part of the paper discusses the role of the government in the development of the United States. It is argued that the government has played a crucial role in the development of the country, and that its actions have been guided by a set of principles that have been passed down from generation to generation.

3. The third part of the paper discusses the role of the individual in the development of the United States. It is argued that the individual has played a crucial role in the development of the country, and that his actions have been guided by a set of principles that have been passed down from generation to generation.

5. India has recently introduced the Goods and Services Tax (GST). In what sense, is this tax different from the earlier tax regime for goods and services? Applying appropriate economic theories, explain the effect of these changes on (a) the Indian economy, (b) the micro, small and medium scale sectors, and (c) the large corporate sector?

(5 + 4 + 3 + 3 = 15)

Answer: