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Your Roll No.....

Sr. No. of Question Paper : 3515 F

Unique Paper Code : 429801203

Name of the Paper : MBAFT-6203 – Economic  
Environment of Business

Semester : II

Duration : 3 Hours Maximum Marks : 70

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Question no. 1 is compulsory.
3. Attempt **any five** questions out of remaining **six** questions.

P.T.O.

1. (i) "GDP is not a measure of welfare". Do you agree with this statement? Give reasons.

(10)

(ii) Explain the various methods of estimating national income. How would you justify exclusion of intermediate goods from GDP?

(10)

2. What do you mean by Steady state growth rate? From the following growth model for an economy with the following parameters :

$$\text{Output per labour (y)} = f(k) = Ak^{0.5}$$

$$\text{Population growth rate (n)} = 0.02$$

$$\text{Depreciation (\delta)} = 0.04$$

$$\text{Savings rate (s)} = 0.36$$

$$A = 2$$

Find the steady state values for Output per labour, consumption per labour, investment per labour and capital per labour. And also show it graphically.

(10)

3. (i) What do you mean by IS-LM schedule? Derive it graphically and also show the impact of expansionary fiscal and monetary policies on the schedule.

(5)

Income  
R.O.I

- (ii) In a closed economy, we have the following information given :

$$\text{Consumption} = 200 + 0.25Y_d$$

$$\text{Investment} = \underline{150} + 0.25Y - 1000i$$

$$\text{Government Expenditure} = 250$$

$$\text{Taxes} = 200$$

$$(M/P)^d = 2Y - \underline{8000i}$$

$$(M/P)^s = \underline{1600}$$

Find, (a) the IS-LM functions, (b) Equilibrium level of Income and Interest rate, (c) Government expenditure multiplier and tax multiplier. (5)

4.

-  (i) What is an exchange rate? Explain different types of exchange rates. *Should countries fix, float, or choose something in between?* (5)

- (ii) Explain Real Effective Exchange Rate (REER) and Nominal Effective Exchange Rate (NEER). (5)

5.

- (i) What do you mean by Balance of Payments (BoP)? What are the various components of BoP? (5)
- (ii) Explain Real Business Cycle (RBC)? (5)

6. What is Mundell-Fleming model? Explain with the help of graphs the working of this model in both fixed and flexible exchange rate regimes. (10)

7. Write a short note on any of the five :  $(2 \times 5 = 10)$

(i) Liquidity Trap

(ii) Neutrality of Money

(iii) Phillips curve

(iv) Natural rate of Unemployment

(v) Kuznet's Curve and Gini Coefficient

(vi) Depreciation vs Devaluation of Currency

(vii) Current account and Capital account  
Convertibility

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**Your Roll No.....**

**Sr. No. of Question Paper : 3513 F**

**Unique Paper Code : 429801202**

**Name of the Paper : Paper No. MBAFT 6202 –  
Decision Modelling and  
Optimization**

**Name of the Course : Master of Business  
Administration (MBA)**

**Student : SOL**

**Semester : II**

**Duration : 3 Hours Maximum Marks : 70**

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **any five** questions out of given **eight** questions. Each question carries equal marks.
3. Use of Simple Calculator is allowed.

1. A company is considering using Markov theory to analyse brand switching between three different brands of mobile phones. Survey data has been gathered and has been used to estimate the following transition matrix for the probability of moving between brands each month :

		To Brand		
		1	2	3
From Brand.	1.	0.8	0.1	0.1
	2	0.03	0.95	0.02
	3	0.2	0.05	0.75

The current (month 1) market shares are 45%, 25% and 30% for brands 1, 2 and 3 respectively.

- (a) What will be the expected market shares after two months have elapsed (i.e. in month 3)
- (b) What is the long-run prediction for the expected market share for each of the three brands?

2. A businessman has three alternatives each of which can be followed by four possible events. The payoff matrix of which is as follows :

		Payoff Matrix			
		A	B	C	D
Events	Alternatives				
		X	8	0	-10
	Y	-4	12	18	-2
	Z	14	6	0	8

Determine which alternative should he choose if he adopts

(i) Minimax criterion ✓ ↴

(ii) Savage criterion ↑

(iii) Laplace criterion  $\frac{1}{n} \{ - \}$

3. ✓ The pay-off matrix of the player 'A' is given. Using dominance property, obtain the optimum strategies for both the players and determine the value of the game.

		PLAYER B				
		I	II	III	IV	V
PLAYER A	I	2	4	8	3	4
	II	5	6	7	3	8
	III	6	7	8	9	7
	IV	4	2	4	8	3

$B = \frac{a_{22} - a_{21}}{(a_{22} + a_{12}) - (a_{22} + a_{21})}$   
Same

$\begin{matrix} 2 \\ 1 \end{matrix} \downarrow$        $A = \frac{a_{22} - a_{12}}{(a_{22} + a_{12}) - (a_{22} + a_{21})}$ 
  
 I     $\boxed{\begin{matrix} 2 & 4 \\ 4 & 3 \end{matrix}}$

$$\text{value of game} = \frac{1}{3} \times 2 + \frac{2}{3} \times 4$$

$$= \left[ \frac{10}{3} \right]$$

4. ✓ A company manufactures two kinds of calculators: Alpha and Beta. The company has got an order for manufacturing at least 2,500 calculators in all. Both types of calculators are manufactured on the same machine and the total machine time available is 600 machine hours. Each Alpha calculator takes 9 minutes to manufacture while a Beta calculator requires 6 minutes. The profit per piece on Alpha calculator is ₹100, and on Beta calculator is ₹50. Formulate the given problem as an LPP and solve using the Simplex method.

5. A college campus has a student coffee shop, which the students normally visit during their short breaks. Arrival at a coffee shop follows a Poisson distribution

on an average at the rate of 3 per minute. The service counter takes about 15 seconds on an average to attend a student and the service time follows an exponential distribution. Determine the following :

- (i) Probability that the server is idle.
- (ii) Expected waiting time of the student at the coffee shop.

6. The data for a project is given below :

Activity	Time (in days)		Direct Cost (in Rs)	
	Normal	Crash	Normal	Crash
1 - 2	4	3	60	90
1 - 3	2	1	45	60
1 - 4	6	4	150	250
2 - 5	5	3	150	250
3 - 4	7	5	100	160
3 - 5	2	2	100	100
4 - 6	4	2	100	140
5 - 6	3	1	80	100

Indirect cost varies as follows :

Days	:	14	13	12	11	10	9	8	7
Cost (Rs)	:	500	400	250	175	100	75	50	35

- (i) Draw the network diagram for the above project and find the critical path. State the project completion time and project cost.
- (ii) What will be the optimal cost and duration for project completion?

How many days at the minimum will the project take to complete and what shall be its associated cost?

7. Saima owns a bakery and is considering three options for her shop next year. She can expand her current shop, move to a larger shop, or make no change. With a favourable market, the annual payoff is expected to be ₹56,000 if she expands, ₹70,000 if she moves, and ₹30,000 if she does nothing. With an average market, her payoff is likely to be ₹21,000,

₹35,000, and ₹10,000 respectively. With an unfavourable market, the predicted payoff is ₹(-29,000), ₹(-45,000), and ₹5,000 respectively.

- (i) Which option should Saima choose if she uses the maximin criterion?
- (ii) Which option should Saima choose if she uses the Hurwicz criterion with  $\alpha = 0.6$ ?

The probability of a favourable market is 25%, the probability of an average market is 45%, and the probability of an unfavourable market is 30%. What option should Saima choose to optimise the expected value? What is the maximum Saima would be willing to pay for additional information?

8. A self-service store employs one cashier at its counter. An average of 9 customers arrives every 5 minutes while the cashier can serve 10 customers in 5 minutes. Assuming Poisson distribution for arrival rate and Exponential distribution for service rate, find :

- (i) Average number of customers in the system.

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(ii) Average queue length.

(iii) Average time a customer spends in the system.

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Your Roll No.....

Sr. No. of Question Paper : 3517 F

Unique Paper Code : 429801204

Name of the Paper : Corporate Finance MBAFT-  
6204

Name of the Course : Master of Business  
Administration (MBA)

Student : SOL

Semester : II

Duration : 3 Hours Maximum Marks : 70

### Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions including question No. **1** which is compulsory.
3. Attempt all parts of a question together.
4. Marks are indicated against each question.
5. Show your working clearly on the answer sheet.
6. Use of Scientific Calculator is allowed.

P.T.O.

1. Ms Aradhna after completing her MBA with majoring in Finance from School of Open learning at the age of 24 got an executive job at HDFC Bank Ltd. One year of job got exhausted in settlement after which she got married to another banker making the family income double. Two years later the couple got blessed with a girl child. Now they became serious about their future financial security. They need Rs. 25 lakhs as down payment for buying a flat worth Rs. one crore at the end of fifth year (on the fifth birthday of their daughter). Rest of the Rs. 75 lakhs will be paid through EMI of the bank loan of 15 years. At the daughter's age of 20, they need Rs. 50 lakhs for her higher education and another Rs. 40 lakhs for her marriage at the age of 24. The employer doesn't provide any pension to them so they had to plan for their post-retirement financial independence. Both of them will retire at the age of 60, in the same month and they need monthly Rs. 3 lakh from next month onwards for another 30 years for their maintenance after which account balance will become zero. For this, they got one scheme from their bank under which a fixed interest rates of 1% per month on the recurring deposits will be given for the entire tenure of the scheme. How much monthly deposits, starting from the daughter's birth till the month of their own retirement, made by the couple to have their all-plan success? Mention your assumptions (if any) explicitly. Try to minimize the requirements of the savings and deposits to the extent possible.

(20)