**F**    **B3F006**                                                          **Pages:3**
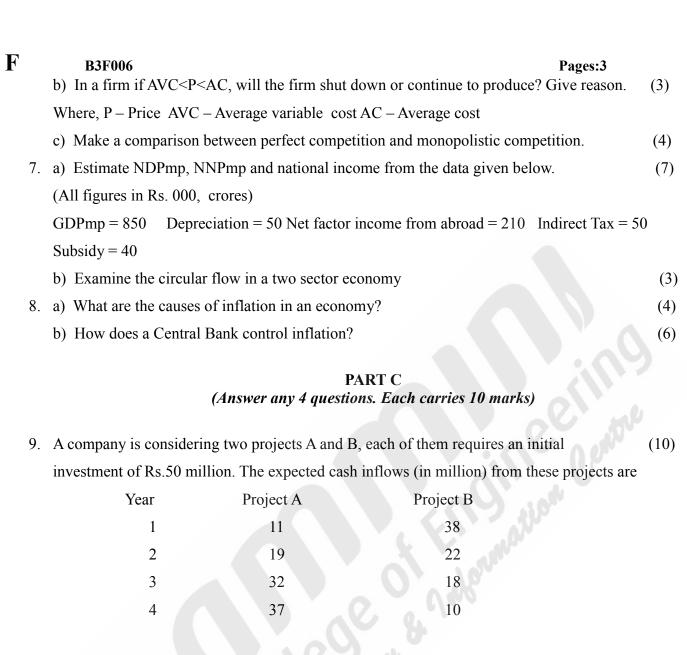
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### APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD SEMESTER B.TECH DEGREE EXAMINATION, JANUARY 2017

#### HS200: BUSINESS ECONOMICS

Max marks: 100                                                      Time: 3 hours

### PART A
*(Answer any three questions. Each carries 10 marks)*

1. a) What is a production possibility curve? With the help of a production possibility curve, explain

    i)         Under utilisation of resources  ii) Full employment of resources                    (6)

    b) How will you use a production possibility curve to explain opportunity cost?            (4)

2. a)  What is marginal utility? Suppose a consumer consumes more and more apples.

    What happens to his marginal utility and total utility? Substantiate your answer with the help of a

    schedule and diagram.                                                                (8)

    b)  A product may be useful or harmful but it may possess utility. Do you agree?  If yes give
    reason.                                                                            (2)

3. a) A consumer purchased 10 units of a product in the month of June. At the same price he purchases

    15 units of the same product in the month of July. Give four reasons for this increase in demand.(6)

    b)  What is price elasticity of demand? Suppose elasticity of demand of a product is 2. If the price

    of the product increases by 10 percentage at what percentage its demand will decrease?        (4)

4. a) How is equilibrium price of a commodity determined?                                      (4)

    b) In a production function $Q = 2 L^{1/2} K^{1/2}$, if L=36 how many units of capital are needed to

    produce 60 units of output?                                                          (2)

    c)  In the production function   $Q = 2 L^{1/2} K^{1/2}$ determine the percentage increase in output

    if labour is increased by 10 percent assuming that capital is held constant.                    (4)

### PART B
*(Answer any 3 questions. Each carries 10 marks)*

5. a) What is break-even analysis?                                                          (2)

    b)  Suppose a Company produces batteries and its fixed cost is Rs. 50,000/-.

    If variable expense per battery is Rs.3/- and price of battery is Rs 8/- estimate

        i. Break-even level of output.                                                      (3)

        ii Number of batteries to be produced to get a total profit of Rs. 25000/-                  (3)

        iii What is the margin of safety if the planned sales is 12000 batteries?                  (2)

6. a)  Distinguish between fixed cost and variable cost.                                        (3)

b)  In a firm if AVC<P<AC, will the firm shut down or continue to produce? Give reason.     (3)

Where, P – Price  AVC – Average variable  cost AC – Average cost

c)  Make a comparison between perfect competition and monopolistic competition.          (4)

7.  a)  Estimate NDPmp, NNPmp and national income from the data given below.                (7)

(All figures in Rs. 000,  crores)

GDPmp = 850     Depreciation = 50 Net factor income from abroad = 210   Indirect Tax = 50

Subsidy = 40

b)  Examine the circular flow in a two sector economy                                    (3)

8.  a)  What are the causes of inflation in an economy?                                      (4)

b)  How does a Central Bank control inflation?                                            (6)

### PART C
### (Answer any 4 questions. Each carries 10 marks)

9.  A company is considering two projects A and B, each of them requires an initial          (10)
investment of Rs.50 million. The expected cash inflows (in million) from these projects are

| Year | Project A | Project B |
|------|-----------|-----------|
| 1    | 11        | 38        |
| 2    | 19        | 22        |
| 3    | 32        | 18        |
| 4    | 37        | 10        |

If the cost of capital is 10 percent, which project should the firm invest in on the basis of NPV?

10. a)  The following  investment projects are available for a company and the initial  outlay for the
projects are 50,000 each. Calculate payback period for the projects and suggest the most suitable
one.                                                                                       (6)

| Year | Cash flow | | |
|------|-----------|-----------|-----------|
|      | Project A | Project B | Project C |
| 1    | 20000     | 15000     | 10000     |
| 2    | 15000     | 10000     | 15000     |
| 3    | 10000     | 25000     | 10000     |
| 4    | 10000     | 10000     | 10000     |
| 5    | 10000     | 5000      | 15000     |

b)   Give any two advantages and disadvantages of payback period method?                   (4)

11. a)  What are the steps involved in decision tree analysis?                               (8)

b)  For what type of projects decision tree analysis is useful?                            (2)

12. The following table shows sales of mobile phones produced by ABC Ltd.
    Develop a trend equation and predict the sales for the sixth period.           (10)

| Period | Demand (in lakhs) |
|--------|-------------------|
| 1 | 120 |
| 2 | 140 |
| 3 | 120 |
| 4 | 150 |
| 5 | 180 |

13. a) Arrange the following items under Liabilities and Assets of a company.

    Land and building, Sundry debtors, sundry creditors, Bank loans, Bills payable,

    Bills receivable, closing stock, Bank Overdraft                           (4)

    b) Distinguish between foreign direct investment and portfolio investment.    (6)

14. a) What are the principles of taxation?                                 (6)

    d) Distinguish between direct tax and indirect tax.                    (4)

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