2250

M.A. Winter Semester

A

ECONOMICS

Course 604 – Law and Economics

(Admissions of 1999 and onwards)

Time : 2½ hours

Maximum Marks : 70

(Write your Roll No. on the top immediately on receipt of this question paper.)

There are two Parts. Attempt both.

Part A

Answer any *ONE* question. Each question carries *thirty* marks.   30×1

1. Consider an instance of land acquisition under the Land Acquisition (Amendment) Act, 1984. The government has acquired land of two individuals, say A and B. Suppose A [resp. B] has lost s^A [resp. s^B] sq.-meters of land to acquisition. Let p_0^A [resp. p_0^B] be the per-sq-meter compensation rate awarded by the LAC. If not satisfied with the initial award, each individual has an option of approaching court to seek higher compensation. Let $p_c^i = (1+\gamma)p_0^i$ denote the compensation rate awarded by the court to individual i. There is uncertainty with respect to the litigation outcome as follows. γ is a random variable with support, say $[0,\bar{\gamma}]$ and $f(\gamma|e_p,e_d)$ and $F(\gamma|e_p,e_d)$ as the conditional density and the conditional distribution function, respectively; where e_p [resp. e_d] is the effort put in litigation by the litigating individual and the government department, respectively. Let, $\dfrac{\partial F(\gamma|e_p,e_d)}{\partial e_p}<0$, $\dfrac{\partial^2 F(\gamma|e_p,e_d)}{\partial e_p^2}>0$,

    $\dfrac{\partial F(\gamma|e_p,e_d)}{\partial e_d}>0$, $\dfrac{\partial^2 F(\gamma|e_p,e_d)}{\partial e_d^2}<0$, and $\dfrac{\partial^2 F(\gamma|e_p,e_d)}{\partial e_p \partial e_d}\geq 0$. For this context, answer the following questions with the help of a formal model. To keep things simple, rather than modeling the probability of win explicitly, you may treat the outcome $\gamma=0$ as if the plaintiff as lost the case:

a. Assuming $e_d = 0$, $p_0^A = p_0^B$ but $s^A > s^B$, find out and compare the equilibrium level of efforts as well as the expected increase in compensation, in percentage terms, for the two individuals.

b. Assuming $p_0^A = p_0^B = p$ and $s^A = s^B = s$, find out the equilibrium values of litigation efforts by the each litigant and the government department. How will the efforts vary with p and s?

(15+15)

2. Consider the following context involving a non-negotiable externality: Two individuals A and B are engaged in economic activities that are privately beneficial but pose risk of accident. For simplicity assume that if an accident happens, initially only B suffers the accident loss. Each party can take precaution to reduce the probability of accident as well the magnitude of loss in case of accident. While the expected accident loss decreases with an increase in care level by the either party, it increases with the level of activities. Moreover, only the care levels taken by the parties are verifiable before a court; the activity levels are not verifiable. For this context, with help of a suitable formal model answer the following questions:

a. Show that none of the standard liability rule is efficient.
b. What are the properties of equilibrium care levels, under a liability rule that satisfies condition Negligence Liability?

Prove your claims.

(10+20)

Part B
Answer any *TWO* questions. Each question carries *twenty* marks.   20 × 2

3. Consider the following context of product related accidents. Assume that both the producers and the users of risky products can exercise care so as to reduce the likelihood of an accident. However, only the producers know the expected loss function correctly; the consumers have only imprecise estimates of it. In such a scenario, show that a product liability rule may or may not be efficient. Prove this claim by providing examples of an efficient and an inefficient rule each.

(20)

4. Answer the following:
    A. What are the efficiency implications of legal errors in determining the actual care level taken by the parties, under the rule of strict liability with the defense of the contributory negligence?
    B. What is 'Coase theorem'? How can it serve as a guide when it comes to choosing between the liability and property rights?

(10+10)

5. Consider a simple procurement model with two risk neutral parties. A buyer (B) requires q units of a certain quality k of a divisible good from a seller (S). The value of the good depends on its quality. The higher the quality, the more valuable the good to the buyer; but it is more costly for the seller to produce. Before trading, both the seller and the buyer can choose to make investments to reduce the cost and to increase the valuation, respectively. Investments are not verifiable. The equipment can be either a general (standard) one or a specific (customised/tailored) one. The Standard equipment, because of its homogenous nature, is available in a competitive market, whereas a specific one cannot be bought readily in the market. In this situation:

(a) Define the first best outcome.
(b) In a thick market context, is it possible to achieve the first best levels of investments and quality through some contract? Where is the trade off? How does the allocation of property rights play a role here?

(5+15)

6. Consider the following contractual setting. A Buyer and a Seller enter into a contract for supply a good. Subsequent to their signing to the contract but before the actual production of the good, the seller can make an investment which increases the value of the good to the buyer, i.e., the payoff to the buyer is a function of this investment. The cost to the seller is deterministic and fixed. The uncertainty over the value of production to the buyer which depends upon the actual realization of the future events and at times can be very low so that he may contemplate breaching. However the parties can engage into a costless renegotiation once the uncertainty is resolved. In this context:

a. Define the first best.
b. Compare the efficiency properties of the equilibria induced by the legal remedies of the reliance damages and the expectation damage under renegotiation.

(5+15)