INSTRUCTIONS TO CANDIDATES:

1. This question paper consists of TWENTY SIX numbered pages, including this page.

2. There are 48 questions in this paper.
   ANSWER 2 QUESTIONS FROM SECTION A AND ALL 45 QUESTIONS IN SECTION B

3. Answer each of the two questions from section A in a separate booklet.
   Answer all questions from section B on the MCQ data sheet provided.
   Ensure that your student number is on both booklets and your MCQ data sheet.
   Do not write your name on the booklets.

4. Submit the MCQ data sheet and all booklets, even if you have not used them all.

5. Show all workings.
Question 1

Answer BOTH parts A and B:

Part A

Lerato is an Economics II student who likes caffeinated drinks. She cannot taste the difference between Coke and Pepsi (which are both sold in 340ml cans) – all she cares about is the caffeine content, which is the same for both drinks.

1. As part of a promotional campaign, Pepsi is being sold at R1 per can. The price of Coke is R2 per can. Lerato has a budget for drinks of R100/month. Write down the equation of Lerato’s budget constraint.

2. Draw a well-labelled diagram showing Lerato’s budget constraint with Pepsi on the horizontal axis and Coke on the vertical axis.

3. Considering Lerato’s preferences are such that she only cares about the caffeine content in the drinks she buys, draw a set of Lerato’s indifference curves on the same set of axes as her budget constraint (part 2). Briefly comment on the shape of her indifferent curves.

4. Show her best affordable bundle on your diagram clearly. Is this an interior or a corner solution? Explain briefly.

The promotional campaign for Pepsi ends and the price of Pepsi increases to R2.50. The price of Coke remains at R2.

5. On your previous diagram, show Lerato’s new optimal bundle.

6. Discuss the size and direction of the substitution and income effects of the price change. (A diagram is not required.)
Part B

Silindile derives utility from her consumption of goods (Y) and her enjoyment of leisure hours (N) on a daily basis. She has no unearned income and so she can only afford to buy goods if she works. Her hourly wage in Rands is $w_1$ and she can choose any number of hours of work per day between zero and 24. The price of goods in Rands is set equal to 1 (i.e. $p_Y = 1$).

7. Explain why Silindile's budget constraint is

$$Y = w_1(24 - N)$$

Graph this relationship with $Y$ on the vertical axis and $N$ on the horizontal axis, indicating clearly the intercepts and slope of the budget constraint. Show clearly how hours of work ($H$) are incorporated into the diagram. [10]

8. Add an indifference curve labelled $I_1$ to your diagram and thus indicate Silindile's initial choice of leisure and goods: label this point $(N_1, Y_1)$. [6]

9. Now suppose that Silindile's hourly wage rises to $w_2$. Assume that Silindile regards leisure as a normal good but that the income effect is small. Draw her new choice on your diagram: label the point $(N_2, Y_2)$ and label the new indifference curve $I_2$. [12]

10. Show how the change from $(N_1, Y_1)$ to $(N_2, Y_2)$ can be split into a substitution effect – which moves Silindile from $(N_1, Y_1)$ to $(N^*, Y^*)$ – and an income effect – which moves her from $(N^*, Y^*)$ to $(N_2, Y_2)$. [12]

11. In Silindile's case leisure is a normal good but the income effect is small. Do her hours of work rise or fall with the wage increase, or is it not possible to say? Briefly explain how the outcome would change if either (a) leisure was normal but the income effect was large or (b) leisure was inferior and the income effect was small. [10]

Total: 100 marks
Question II

Answer ALL Parts A, B, and C.

Part A

1. A monopolist is able to identify two distinct groups of customers — pensioners, and all other customers. The monopolist maximizes its profit by selling 40 units to pensioners at a price of R100 per unit, and by selling 25 units to all other customers at a price of R180 per unit. The marginal cost of producing a unit is constant at R20.

   a) What type of price discrimination is being practised by the monopolist? [2]

   b) Calculate the price elasticity of demand for each group of customers. (Hint: first calculate the Lerner Index.) Which group has the more price elastic demand? How does the elasticity affect the price charged to each group? [10]

   c) Use a diagram to illustrate the equilibrium position in the ‘pensioners’ market and a second diagram to illustrate the equilibrium in the market for ‘all other customers’. On each diagram, show the consumer surplus, producer surplus and deadweight loss. (NB. You do NOT have to calculate the size of these areas). [15]

   d) If this monopolist were now replaced by a perfectly competitive market, would total welfare increase, decrease or remain the same? Briefly explain your answer. (NO diagram is required.) [8]
2. Refer to the figure below when answering this question. Panel (a) reflects the situation of an individual firm, while panel (b) shows the market as a whole. Assume there are \( n \) identical firms in the market, and no further entry is possible. (NB. There is no need to re-draw the diagram.)

![Graph](image)

(a) Firm
(b) Market

Price, \( p \), $ per unit

\( P_m \)
\( P_c \)
\( AC \)
\( MC_m \)

Quantity, \( q \), Units per year

\( q_m \)
\( q_c \)
\( q^* \)

Price, \( p \), $ per unit

\( P_m \)
\( P_c \)
\( MR \)

Market demand

Quantity, \( Q \), Units per year

\( Q_m \)
\( Q_c \)

(a) What is meant by a **cartel**, and why might firms choose to form a cartel?  

[10]

(b) Compare the equilibrium price and quantity under competition to that under the cartel, both for the individual firm and the market. How does formation of the cartel affect consumers' welfare and firms' profit?  

[15]

(c) Refer to the diagram to explain why the individual firm has an incentive to cheat on the cartel agreement.  

[10]
Part C

3. Firm Z is a monopolistic competitor.
   
a) Identify three features that distinguish a monopolistically competitive market structure, and give at least two examples of real world products that you would say are produced by firms in this type of market.  
   [10]

b) Use a diagram to explain and illustrate the long-run equilibrium position of Firm Z. Draw Firm Z's demand, marginal revenue, and average and marginal cost curves. On your diagram, indicate total revenue, total cost, and total profit (if any). 
   [20]

Total: 100 marks
Question III

1. Briefly explain the Coase Theorem and how property rights play a role in it.

The following table shows profit per day from a polluting plastics firm and a fishing company that both share a river. The fishing company's profits are clearly affected by the amount of output produced by the plastics firm. Use this information to answer questions 2 and 3 below.

<table>
<thead>
<tr>
<th>Plastics Firm (tons of output per day)</th>
<th>Fishing Company (boats per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
</tr>
</tbody>
</table>

2. In the absence of a property right, what is the output of each firm? Explain why this outcome occurs and why it is not socially optimal. Carefully explain the process by which the firms could move from the actual outcome to the socially optimal outcome.

3. Now assume that the fishing company has the property right to a clean river. Explain how much output each firm will produce in this case. How can a social optimum be reached (such that both parties gain after an agreement has been made)?

4. Name and briefly explain THREE weaknesses or potential problems with a Coase-type solution when trying to reach a social optimum in a situation in which there are externalities.

Total: 100 marks
1. Refer to the diagram above, which shows a conventionally shaped indifference curve. A reason for this shape is:

a) the consumer always prefers bundle b to bundle c because of the more-is-better assumption.
b) the marginal rate of substitution (MRS) is constant along the indifference curve.
c) the marginal utility of grilled chicken ($MU_C$) rises as the consumer moves from bundle a to bundle c.
d) the marginal utility of pizza ($MU_Z$) falls as the consumer moves from bundle a to bundle c.
e) The ratio $\frac{MU_Z}{MU_C}$ increases as the consumer moves from bundle a to bundle c.
2. Zinzi enjoys reading books \((B)\) and watching movies \((M)\). Her utility function, given by \(U(M, B) = M + 2B\), shows that

a) Zinzi always watches twice as many movies as the number of books she reads.
b) Zinzi’s marginal utility from movies is 1.
c) Zinzi’s marginal utility from books is \(\frac{1}{2}\).
d) Holding her total utility constant, Zinzi is always willing to substitute one movie for two books.
e) Zinzi’s marginal rate of substitution diminishes downwards along her indifference curves.

3. Given a consumer’s budget constraint with coffee on the vertical axis and tea on the horizontal axis, if the consumer is consuming on his budget constraint where the ratio of marginal utility of tea to marginal utility of coffee, \(\frac{MU_T}{MU_C} = 0.25\), the price of coffee is R2 and the price of tea is R1.50, then the consumer is:

a) Purchasing too much coffee for utility maximisation.
b) Purchasing too much tea for utility maximisation.
c) Purchasing too little tea and too little coffee to maximise his utility.
d) Purchasing just the right amount of each good for utility maximisation.
e) Purchasing less than the budget allows, and thus is not maximising his utility.

4. There are four consumption bundles. Lenhle prefers bundle \(b\) to bundle \(a\). She prefers bundle \(d\) to bundle \(c\). She prefers bundle \(b\) to bundle \(d\). She is indifferent between bundle \(a\) and bundle \(c\). If her preferences are transitive which of the following is true?

a) She prefers bundle \(c\) to bundle \(b\) and is indifferent between bundle \(a\) and bundle \(d\).
b) She prefers bundle \(b\) to bundle \(c\) and is indifferent between bundle \(a\) and bundle \(d\).
c) She prefers bundle \(c\) to bundle \(b\) and she prefers bundle \(a\) to bundle \(d\).
d) She prefers bundle \(c\) to bundle \(b\) and she prefers bundle \(d\) to bundle \(a\).
e) She prefers bundle \(b\) to bundle \(c\) and she prefers bundle \(d\) to bundle \(a\).
5. Luyanda consumes only two goods, beer and hamburgers, and his budget constraint is shown in the diagram above. At Luyanda's best affordable bundle (E), how many cans of beer (including fractions) is he willing to give up for an additional hamburger, keeping his total utility constant?

a) 12
b) 4
c) 0.25
d) 0.08
e) None of the above is correct.
6. Londi spends her allowance on MP3 music downloads and airtime. The diagram below shows a set of indifference curves and budget constraints for various prices of downloads. The price of airtime is R5 per unit and remains unchanged.

Refer to the diagram. Which of the following gives two points that are both on her demand curve for downloads:

a) 10 downloads at R5 each; 16 downloads at R3.33 each
b) 10 downloads at R10 each; 20 downloads at R1 each
c) 7 downloads at R2 each; 10 downloads at R5 each
d) 10 downloads at R20 each; 16 downloads at R10 each
e) 16 downloads at R3.33 each; 10 downloads at R10 each
7. Nomthandazo has the utility function \( U = \sqrt{A} \times \sqrt{C} \). The following table gives three different bundles of \( A \) and \( C \).

<table>
<thead>
<tr>
<th></th>
<th>( A )</th>
<th>( C )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bundle 1</td>
<td>225</td>
<td>121</td>
</tr>
<tr>
<td>Bundle 2</td>
<td>324</td>
<td>81</td>
</tr>
<tr>
<td>Bundle 3</td>
<td>144</td>
<td>196</td>
</tr>
</tbody>
</table>

What is Nomthandazo’s ranking of these three bundles?

a) Bundle 1 is better than bundle 2 which is better than bundle 3.
b) Bundle 1 is better than bundle 3 which is better than bundle 2.
c) Bundle 3 is better than bundle 2 which is better than bundle 1.
d) Bundle 3 is better than bundle 1 which is better than bundle 2.
e) Bundle 2 is better than bundle 3 which is better than bundle 1.

8. A consumer gets utility from leisure hours \( (N) \) and from consumption goods \( (Y) \). The wage is \( w \) and the price of consumption goods is \( p \). Suppose that the consumer is on the budget constraint at a point at which

\[
\frac{MU_N}{MU_Y} < \frac{w}{p}
\]

where \( MU_N \) denotes marginal utility of leisure and \( MU_Y \) denotes marginal utility of consumption goods. What should the consumer do to raise utility?

a) Work less, consume less.
b) Work less, consume more.
c) Work more, consume more.
d) Work more, consume less.
e) Stay at the current position on the budget constraint.
9. The Laffer curve graphs government tax revenue on the vertical axis and the marginal income tax rate on the horizontal axis. For the Laffer curve to slope downwards what must be true about the labour supply relationship?

a) Labour supply falls by a large amount for a given increase in wages.
b) Labour supply falls by a small amount for a given increase in wages.
c) Labour supply does not change for a given increase in wages.
d) Labour supply increases by a small amount for a given increase in wages.
e) Labour supply increases by a large amount for a given increase in wages.

10. The price of a standard bundle of goods (Y) is R1. The hourly wage rate is R18 and an individual can work anything between 0 and 24 hours. There is a government grant which pays R60 per day. Y is measured on the vertical axis and leisure hours (N) on the horizontal axis. The slope of the budget line is .......... and the vertical intercept of the budget line is .........

a) −2.5; 60.
b) −18; 432.
c) −20.5; 432.
d) −18; 492.
e) −20.5; 492.

11. Consider the production technologies in industry A and in industry B. Both industries use two inputs: capital and labour. Isoquants in industry A are L-shaped and isoquants in industry B are downward-sloping straight lines. Which of the following statements is true?

a) Capital and labour are perfect complements in both industries.
b) Capital and labour are perfect substitutes in both industries.
c) Capital and labour are perfect substitutes in industry A and perfect complements in industry B.
d) Capital and labour are perfect complements in industry A and perfect substitutes in industry B.
e) None of the preceding statements is correct.
12. Consider the following diagram.

The producer wants to double output from 100 to 200. In the short-run capital is fixed at $K = 100$ and only labour can be varied. In the long-run both labour and capital can be varied. Which of the following statements is true?

a) In the long-run the firm will more than double the labour input and costs will more than double.
b) In the long-run the firm will exactly double the labour input and costs will more than double.
c) In the long-run the firm will exactly double the labour input and costs will exactly double.
d) In the short-run the firm will more than double the labour input and costs will exactly double.
e) In the short-run the firm will exactly double the labour input and costs will more than double.
13. The production function in an industry has the Cobb-Douglas form.

\[ Q = L^\alpha K^\beta \]

Q is output and L and K are the labour and capital inputs. If \( \beta = 0.3 \) and there are decreasing returns to scale which of the following must be true?

a) \( \alpha < 0.3 \)
b) \( \alpha = 0.3 \)
c) \( \alpha < 0.7 \)
d) \( \alpha = 0.7 \)
e) \( \alpha > 0.7 \)

14. A firm can employ workers for R20 an hour and can rent capital at a cost of R40 per unit per hour. \( MP_L \) and \( MP_K \) denote the marginal products of labour and capital. Consider the following three cases:

Case 1: \( 2MP_L = MP_K \)

Case 2: \( MP_L = MP_K \)

Case 3: \( MP_L = 2MP_K \)

Which of the following statements is true?

a) Case 1 minimises cost; in the other cases the ratio of capital to labour is too high.
b) Case 1 minimises cost; in the other cases the ratio of capital to labour is too low.
c) Case 2 minimises cost.
d) Case 3 minimises cost; in the other cases the ratio of capital to labour is too high.
e) Case 3 minimises cost; in the other cases the ratio of capital to labour is too low.
15. A firm's production technology exhibits constant returns to scale. $LRAC$ is the long-run average cost curve. $SRAC_1$ is a short-run average cost curve when the capital input is low and $SRMC_2$ is a short-run marginal cost curve when the capital input is high. Which of the following statements is correct?

a) $SRAC_1$ touches $LRAC$ at a single level of output and $SRMC_2$ cuts $LRAC$ at the same level of output.

b) $SRAC_1$ touches $LRAC$ at a single level of output and $SRMC_2$ cuts $LRAC$ at a lower level of output.

c) $SRAC_1$ touches $LRAC$ at a single level of output and $SRMC_2$ cuts $LRAC$ at a higher level of output.

d) The three curves ($LRAC$, $SRAC_1$ and $SRMC_2$) all coincide.

e) None of the preceding statements is true.
Answer questions 16 – 18 with reference to the simple (non-discriminating) monopolist facing the cost and demand situation shown in the following diagram:

16. If the market was originally perfectly competitive but then changed to a simple (non-discriminating) monopoly then:

   a) Output would decrease, consumer surplus would decrease and deadweight loss would decrease
   b) Output would increase, consumer surplus would increase and deadweight loss would increase
   c) Output would decrease, consumer surplus would increase and deadweight loss would decrease
   d) Output would increase, consumer surplus would decrease and deadweight loss would increase
   e) Output would decrease, consumer surplus would decrease and deadweight loss would increase

17. For a simple (non-discriminating) monopolist facing the above cost and demand situation:

   a) Consumer surplus would be 96 and deadweight loss would be 0
   b) Consumer surplus would be 32 and deadweight loss would be 0
   c) Consumer surplus would be 32 and deadweight loss would be 16
   d) Consumer surplus would be 32 and deadweight loss would be 8
   e) Consumer surplus would be 72 and deadweight loss would be 8
18. Assume the government decides to regulate the monopoly. Under optimal regulation, the output is _____ and the price is ____:

a) 8; 40
b) 24; 32
c) 8; 32
d) 12; 36
e) 24; 0

19. If a monopolist maximises profit at the level of output where marginal cost is R4 and charges a price of R12 per unit, what is the price elasticity of demand at this level of output? (Hint: first work out the Lerner Index.)

a) - 0.67
b) - 1.5
c) - 1
d) - 0.33
e) 3

20. Consider the following statements:

i. A firm needs to have a Lerner Index equal to zero in order to be able to practise price discrimination.

ii. When a firm practises first-degree (perfect) price discrimination, it sells each unit of its product for the maximum amount a person is willing to pay for it, and there is no consumer surplus.

iii. When a firm practises second-degree (quantity) discrimination, it charges a different amount for large quantities of its product than for small quantities, but all customers who buy a given quantity pay the same price.

Which of the statements is / are correct?

a) Only (i) is correct.
b) (ii) and (iii) are correct.
c) (i) and (ii) are correct.
d) Only (iii) is correct.
e) All three are correct.
21. If a firm that was previously a simple monopolist begins to practise perfect price discrimination, then:

a) the deadweight loss in the market is increased.
b) consumer surplus is always increased.
c) the total of consumer and producer surplus is always decreased.
d) consumer surplus and deadweight loss are transformed into monopoly profits.
e) Both a) and b) are correct.

![Demand and Marginal Cost Curves](image)

22. The diagram above shows the demand and marginal cost curves for a monopolist practising quantity discrimination. The firm uses declining-block prices and sells 40 units in total. Units in the first block are sold for R140 each and units in the second block are sold for R120 each. The monopoly has a constant marginal and average cost of $m = R80$. **Producer surplus** for this firm is equal to:

a) 3200
b) 1600
c) 2000
d) 2800
e) 1200
23. Virgin Active Gyms are able to identify two groups of customers for gym contracts: students (who pay a price of \( P_2 \)), and all other customers (who pay a price of \( P_1 \)). The cost to Virgin Active Gyms of providing gym contracts is the same for both groups. If the price elasticity of demand for gym contracts on the part of students is \(-5\), and the price elasticity of demand for all other customers is \(-3\), then the ratio of \( P_1 \) to \( P_2 \) is:

a) \( 5/3 \)
b) \( 6/5 \)
c) \( 5/6 \)
d) \( 3/5 \)
e) \( 3/2 \)

24. The diagram above shows the cost, demand and marginal revenue curves for a monopoly. If the monopoly does not advertise its demand curve is \( D_1 \). If it advertises, its demand curve shifts to \( D_2 \). The monopoly has a constant marginal and average cost of R6. The benefit from advertising is indicated by area:

a) \( E \)
b) \( F \)
c) \( F + G \)
d) \( G \)
e) None of the above
Answer questions 25 to 27 on the basis of the information below:

For two firms (firm A and firm B) in a Cournot duopoly, the market demand curve is described by the equation $P = 338 - 2Q$, and the marginal costs of production of each firm are constant at R50. Firm A’s marginal revenue curve is $MR^A = 338 - 4q_A - 2q_B$.

25. What is firm A’s best-response function?
   a) $q_B = 72 - q_A$
   b) $q_B = 72 - \frac{1}{2}q_A$
   c) $q_A = 72 - \frac{1}{2}q_B$
   d) $q_A = 338 - q_B$
   e) $q_A = 288 - \frac{1}{2}q_B$

26. What is the total output in the symmetric Cournot equilibrium?
   a) 288
   b) 96
   c) 72
   d) 48
   e) 36

27. What is the Cournot equilibrium price?
   a) R146
   b) R194
   c) R242
   d) R288
   e) R338

28. Monopolistically competitive firms:
   a) always operate at full capacity, otherwise new entrants will erode their profits.
   b) have no market power because they earn zero economic profit.
   c) have no market power because of free entry.
   d) have no market power because price equals marginal cost.
   e) have market power because they can set price above marginal cost.
29. Which of the following statements regarding the Bertrand model is correct?

a) The Bertrand leader knows that the Bertrand follower will use its Cournot best-response curve to determine its best-response price.
b) Firms make their output decisions simultaneously and the market determines the price.
c) Bertrand best-response curves have a positive slope (i.e. slope upwards) because the firms are price setting firms.
d) Bertrand best-response curves have a negative slope (i.e. slope downwards) because the firms are quantity setting firms.
e) None of the above.

30. Two rival jewellery retailers – Sterns and American Swiss - are considering opening stores in a small town mall. The matrix below shows the potential profits for both firms (R 000 per week).

<table>
<thead>
<tr>
<th></th>
<th>Enter</th>
<th>Do not enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enter</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Do not enter</td>
<td>25</td>
<td>0</td>
</tr>
</tbody>
</table>

Which of the following statements is correct?

a) Neither firm will open a branch at the mall.
b) The outcome will be a ‘prisoners’ dilemma’ since both firms could do better if they did not follow their dominant strategies.
c) Two Nash equilibria can be identified in this case.
d) This is an example of a ‘chicken’ game where neither firm has a dominant strategy.
e) Both firms’ dominant strategy is to enter.
31. Suppose two people with the same level of income and wealth have different discount rates. Morgan has a very high discount rate and Emily has a very low discount rate. Which one of the following is TRUE?

a) Morgan and Emily will borrow the same amount  
b) Morgan is more likely to borrow than Emily  
c) Morgan is less likely to borrow than Emily  
d) Neither Morgan nor Emily would be borrowers  
e) none of the above

32. What is the present value of a payment of R121 that is received one year from now if the interest rate is 10%?

a) 133.1  
b) 121  
c) 110  
d) 100  
e) 90.9

33. You place R4000 in a bank that pays 4% interest at the end of each year. How much will you have at the end of five years with annual compounding?

a) $4000 \times (1.1024)^5$  
b) $4000 \times (1.04)^5$  
c) $4000 \times 1.1024$  
d) $4000 \times (0.04)^5$  
e) $4000 \times 4 \times 1.04$

34. You will receive a stream of annual payments of R400, with the first payment in one year, and the payments continuing at the end of each year forever. The interest rate is 5%. What is the present value of this stream of payments?

a) R8,000  
b) R4,000  
c) R527.27  
d) R440  
e) R400
35. Suppose an investment now costs R600 and generates a benefit of R648 in one year's time and that the interest rate is 6%. What is the internal rate of return of the investment?

a) R48  
b) R11  
c) 10%  
d) 8%  
e) 6%

36. If the inflation rate is 8% and an investor requires a real interest rate of 3% then what is the approximate nominal interest rate that she must obtain?

a) 22%  
b) 11%  
c) 6%  
d) 5%  
e) 1%

37. A bond issuer agrees to pay a stated nominal amount each year. A decrease in the nominal interest rate will cause

a) the price of the bond to fall  
b) the price of the bond to rise  
c) the price of the bond is unaffected  
d) the nominal value of the bond's coupon to rise  
e) the nominal value of the bond's coupon to fall
38. Suppose a new indestructible solar panel will cost you R50 000, and will save you R5000 a year in electricity costs forever. Using the Internal Rate of Return approach, you should purchase the solar panel:

a) definitely.
b) definitely not.
c) if the market interest rate exceeds 10%.
d) if the market interest rate is less than 10%
e) only if your discount rate is zero.

39. Suppose that the government uses the capital market to provide funds for a new rail network. We expect the total quantity of funds loaned in the economy to _______ and the interest rate to _______:

a) stay the same; fall
b) fall; rise
c) rise; rise
d) rise; fall
e) rise; stay the same

40. A concert promoter makes a profit of R500 with probability 3/4 and a loss of R500 with probability 1/4. What is the variance of the profit?

a) R625 000
b) R187 500
c) R144 531
d) R125 000
e) R62 500

41. If fair insurance is offered to a risk-averse person, she will:

a) not buy any insurance because it is overpriced
b) not buy any insurance since the marginal utility of the amount of the payment is positive
c) buy enough insurance to cover half of the possible loss
d) buy enough insurance to eliminate all risk
e) buy more insurance than the amount of the loss
42. In a competitive market, a negative externality creates a deadweight loss because:

a) social marginal cost equals private marginal cost
b) the cost of the externality is double counted
c) a harm is generated
d) price equals social marginal cost
e) price equals private marginal cost

43. If the production of a good produces pollution with each additional unit, a monopoly facing a very inelastic demand curve will most likely produce:

a) more than the social optimum of the good
b) the social optimum of the good
c) less than the social optimum of the good
d) no externality
e) more than if the pollution was less damaging

44. If both a competitive market and a monopoly market with the same marginal cost would produce a quantity that is greater than the social optimum because of externalities, then:

a) the social optimum must be zero
b) welfare is greater under monopoly
c) welfare is the same for both market structures
d) welfare is greater under competition
e) we cannot say without further information

45. A ‘Rihanna’ concert in Johannesburg is an example of a product that is:

a) Non-rival and non-excludable
b) Non-rival and excludable
c) Rival and excludable
d) Rival and non-excludable
e) None of the above