Foundations of Economics. Assessment 2: Individual exam.
Time allocated: 2 hours 15 minutes.

Section A. Answer all questions (50 marks).

MULTIPLE CHOICE QUESTIONS (30 marks)

1. Which of the following is correct? Resources are

(3 marks)

   a. land, labor, price system, and capital, components and raw materials
   b. always paid for with money
   c. the factors of production used to produce goods and services
   d. only land and labor

2. According to the concept of scarcity in economics,

(3 marks)

   a. wants will be fully satisfied in the future
   b. there are no free goods
   c. the wants of society cannot be satisfied by the goods and services that can be produced from given resources
   d. free goods and scarce goods as well as services are equally available

3. Opportunity cost is best defined as **(3marks)**

   a. an economic cost whose value is independent of the number of goods produced
   b. the value of the best alternative use to which a resource, such as land or time, could be put
   c. an expenditure that cannot be recovered and is thus irrelevant to rational decision-making
   d. an economic cost whose value is dependent upon the number of goods produced

4. Price elasticity of demand is -1.8. Demand is

(3 marks)

   a. inelastic
   b. unitary elastic
   c. elastic
   d. perfectly inelastic

5. Income elasticity of demand for good A is +0.5. The good A is

(3 marks)

   a. Giffen good
   b. superior good
   c. inferior good
   d. normal good

6. The reserve requirement is 20%. The potential money multiplier is equal to:

(3 marks)

a. 10
b. 20
c. 5
d. M2

7. In January 2015 the personal income tax rate was increased on 1% in Uzbekistan. Will it affect injection or withdrawal? Will it lead to expansion or contraction of the aggregate demand, ceteris paribus? **(3 marks)**

a) Injection, expansion
b) Injection, contraction
c) Withdrawal, contraction
d) Withdrawal, expansion

Table 1.4

Table 1.4: Production Possibilities Schedule		
Choice	**Good A**	**Good B**
1	45	0
2	40	10
3	30	20
4	10	30
5	0	40

8. According to the production possibilities schedule in Table 1.4, which of the following statements is *true*?

(3 marks)

a. This economy could produce 45 units of good A and 10 units of good B.
b. The opportunity cost of producing more of good A decreases as the amount of good A produced increases.
c. The opportunity cost of producing more of good B decreases as the amount of good B produced increases.
d. This economy could produce 30 units of good A and 20 units of good B.
e. If this economy were to fully and efficiently employ all its resources, it could provide 45 units of good A and 40 units of good B.

9. According to the production possibilities schedule in Table 1.4, which of the following statements is *true*?

(3 marks)

a. If one moves from choice 2 to choice 3, the opportunity cost of 10 more units of good B is 10 units of good A.
b. There are increasing opportunity costs associated with producing more of good B.
c. If one moves from choice 3 to choice 4, the opportunity cost of 10 more units of good B is 20 units of good A.
d. If one moves from choice 1 to choice 2, the opportunity cost of 10 more units of good B is 5 units of good A.
e. All of these

10. If the aggregate supply curve is flat,
a. expansionary fiscal or monetary policy will cause a good deal of inflation with little increase in real output.
b. expansionary fiscal or monetary policy will buy large gains in real output at low cost in terms of inflation.
c. contractionary stabilization policy is an effective way to reduce inflation.
d. decreasing the income tax will not shift aggregate demand.

(3 marks)

SHORT-ESSAY QUESTIONS (20 marks)

Q.11. Consider data provided in Table 6.1 and answer questions.

Table 6.1.
Of 1,350 people surveyed, 318 are not working.
The status of those not working is as follows:
122 full-time students
29 discouraged workers
18 in long-term-care facilities
21 seeking employment and aged 16 or older
50 retirees
63 under working age

15 working in the underground economy and not looking for a "real" job
Eight of those working were under working age.

A. According to the data provided, what is the number of workers officially unemployed?
21 seeking employment and aged 16 or older

(3 marks)

B. According to the data provided, the number of people officially in the labor force is:
LF= employed + unemployed >>> 1032+21 = 1053

(3 marks)

C. According to the data provided, calculate the official unemployment rate.

(4 marks)

Unemp. rate = unemployed / labour force >>> 21/1053 = 0.01994 or 2%

Q. 12. The interaction between money supply and money demand determines equilibrium interest rates in the money markets. Show on the demand and supply axes what impact each event, ceteris paribus, is likely to have on the market.

A. People become more cautious and start holding more cash in their accounts

(3 marks)

Precautionary Money demand increases.

B. Higher levels of spending at Christmas **(3 marks)**

Transaction money demand increases

C. Substantial sales of gilt-edged securities **(2 marks)**

Money supply falls

D. Increased printing of money to fund higher government expenditure **(2 marks)**

Money supply rises

Section B. Answer two out of four questions (50 marks).

Q1. Costs: **[25 marks]**

Consider the information presented below:

# of units produced	Total fixed cost	Average variable cost
1	30	17
2	30	15
3	30	12
4	30	15
5	30	19
6	30	29

A. Define and bring examples of fixed costs, variable costs, marginal costs. [5 marks]

Answer: ***fixed costs*** ***- costs that do not change as output changes (rent, administrative costs, etc);*** ***variable costs*** ***– cost that change as output changes (example, electricity, labor costs, etc);*** ***marginal cost*** ***– cost of last unit produced (MC=change in TC/change in output).***

B. Create a table in your answer sheet, and calculate average fixed cost, variable cost, total cost, average total cost and marginal cost. [10 marks]

Answer:

Q # of units produced	Total fixed cost	Average variable cost	AFC= *TFC/Q*	TVC= *AVCxQ*	TC= *AVCxQ or TFC+TVC*	ATC= *TC/Q or AFC+AVC*	MC= *dTC/dQ*
1	30	17	**30**	**17**	**47**	**47.0**	**-**
2	30	15	**15**	**30**	**60**	**30.0**	**13**
3	30	12	**10**	**36**	**66**	**22.0**	**6**
4	30	15	**7.5**	**60**	**90**	**22.5**	**24**
5	30	19	**6**	**95**	**125**	**25.0**	**35**
6	30	29	**5**	**174**	**204**	**34.0**	**79**

C. Using the numbers given and the ones you have found, draw average variable cost (AVC), average total cost (ATC) and marginal cost (MC) curves, clearly indicating the points where MC intersects AVC and ATC curves? [5 marks]

A: Graph should reflect AVC, ATC, MC accurately with corresponding price and quantity. Graph must show that MC crosses ATC and AVC at their <u>lowest points</u> respectively (somewhere between 3 and 4)

D. Can we observe law of diminishing marginal returns in this case? If yes, which unit does it set after? [5 marks]

A: Yes, After 3rd unit, or from 4th unit

Q2. Supply and Demand. Price controls

(25 marks)

The weekly market demand and supply of tomatoes are given by the figures shown below:

Price (£ per kilo)	4.00	3.50	3.00	2.50	2.00	1.50	1.00
Qd (000 kilos)	30	35	40	45	50	55	60
Qs (000 kilos)	80	68	62	55	50	45	38

A. Draw a graph using data provided in the table. [2.5 marks]

A: Check whether Demand and Supply plotted correctly with corresponding quantities and price levels

B. What are the equilibrium price and quantity? [2.5 marks]

A:
Qd=Qs = Qe = 50
Pe=2

C. What will be the effect of the government fixing a minimum price of (i) £3.00 per kilo; (ii) £1.50 per kilo? [5 marks]

A:

(i) Disequilibrium, where Qs>Qd → excess of supply = 22 000 kilos (62-40)

(ii) Disequilibrium, where Qd>Qs → deficit (shortage of supply) = 10 000 kilos (55-45)

D. suppose that the government paid tomato producers a subsidy of £1.00 per kilo. (i) Give the new supply schedule. (ii) What will be the new equilibrium price? (iii) how much will this cost the government? [5 marks]

A:

(i) supply shifts to the right; Pe=1

(ii) government subsidy = 1 x 60 = 60 000 pounds

E. alternatively, suppose that the government guaranteed tomato producers a price of £2.50 per kilo.

(i) how many tomatoes would it have to buy in order to ensure that all the tomatoes produced were sold? (ii) how much would this cost the government? [5 marks]

A:

(i) minimum price of 3.5 per kilo causes disequilibrium, surplus of supply = 10 000 (55-45), which government needs to buy

(ii) 10x2.5 = 25 000 pounds

F. alternatively, suppose it bought all the tomatoes produced at £2.50. (i) at what single price would it have to sell them in order to dispose of the lot? (ii) What would be the net cost of this course of action? [5 marks]

A:

Quantity bought at price £2.5 = 55 000 kilos

(i) price at which 55 000 sold = £1.50

(ii) (2.5 x 55 000) – (1.5 x 55 000) = £55 000

Q3. How does a central bank influence the lending capacity of the banks?
(outline policy instruments and explain how they work)

(25 marks)

Answer to this essay question should address:

Reserve requirements, open market operations, discount rate.
Terms defined - 10 pts
Examples provided (eg. money multiplier formula with numerical explanations) – 10 pts
Graph used – 5 pts

Q4. Unemployment.
Describe the three main types of unemployment? Explain the reasons for each, and provide relevant examples, use graphs to answer questions.

(25 marks)

Answer to this essay question should include:
Structural, Frictional, Cyclical, or others types of unemployment.

Terms defined – 10 pts
Reasons for each with examples provided - 10 pts
Graphs used – 5 pts