

**SECOND YEAR FIRST SEMESTER EXAMINATION – JANUARY/FEBRUARY 2016**

**BGE 221 - 3 Project Management and Economics**

**Instructions to candidates:**

No. of pages : Seven (07)  
Time : Three (03) Hours

**Index No:**

**Do not take the exam paper out of the exam hall.**

**Part A: Project Management**

**Answer only three (03) questions including question number one (01)**

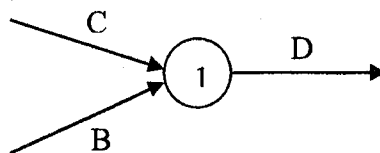
1) Project Network is an arrangement of all activities in a project in their logical sequence and represented by diagram of nodes and arcs which usually starts from left and proceeding to the right.

I. Briefly explain benefits of project scheduling (05 Marks)

II. State any four (04) basic rules applying when constructing a Network Diagram

(04 Marks)

III. Describe following situation of a network diagram stating Activities and Events of it.



(04 Marks)

- IV. Draw Activity On Node (AON) Network for the following project activity schedule.

| Activity | Preceding Activity |
|----------|--------------------|
| A        | -                  |
| B        | A                  |
| C        | A                  |
| D        | B                  |
| E        | C                  |
| F        | D                  |
| G        | D                  |
| H        | E                  |
| I        | G,H                |
| J        | C                  |
| K        | F                  |
| L        | I,J,K              |

(07 Marks)

(Total 15 Marks)

2)

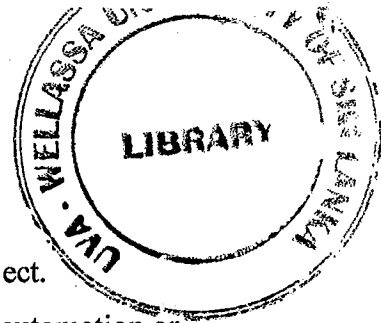
- I. Provide a definition for a "project". (03 Marks)
- II. State any four (04) major characteristics of a project. (04 Marks)
- III. Explain the importance of Project Management. Support your answer with a practical example. (08 Marks)

(Total 15 Marks)

3)

- I. Heyles Pvt Ltd is planning to invest Rs.7,000,000 in order to automate their production process. Estimated useful life of this automation is 10 years. Management's desired payback period is 6 years.  
Annual cash inflows and outflows associated with above automation are as follows:

- a) Annual cash inflow Rs. 6,100,000
- b) Annual cash outflows: Rs. 5,200,500



You are required to:

- i. Calculate payback period of above automation project.
- ii. State whether Heyles (Pvt) Ltd should acquire this automation or not.

(06 Marks)

- I. Hawain (Pvt) Ltd is planning to purchase new machine which will cost Rs.8,000,000 to their manufacturing plant. The machine will result Rs.500,000 net cash flow annually. The useful life of the machine is 5 years. The management expected rate of return is 20%.

You are required to;

- i. Compute Net Present Value (NPV) for above project.
- ii. Should the machine be purchased? Give reasons for your answer according to NPV analysis.

(09 Marks)

**(Total 15 Marks)**

- 4) The project manager must have a combination of skills including technical credibility, administrative credibility, ability to detect unstated assumptions and resolve conflicts, as well as more general management skills.

- I. Explain why project managers fail to achieve project objectives. Support your answer with an example.

(07 Marks)

- II. Describe "Matrix Project Organization Hierarchy" stating advantages and disadvantages of it.

(08 Marks)

**(Total 15 Marks)**



(03).

Suppose a firm faces a cost function of  $C = 9 + 6Q + 2Q^2 - Q^3$

- (a). What is the firm's fixed cost, FC? (2 marks)
- (b). What is the formula for the firm's variable cost, VC? (2 marks)
- (c). What is the formula for the average cost, AC? (2 marks)
- (d). What is the formula for average variable cost, AVC? (2 marks)
- (e). What is the marginal cost, MC (formula)? (3 marks)
- (f). On a diagram, draw the AC, AVC, and MC curves. (4 marks)

(Total 15 marks)

(04).

- (a). What is "price control"? (2 marks)
- (b). Explain the effect of a price ceiling by using diagrams (3 marks)
- (c). What is an effective price ceiling? (2 marks)
- (d). Explain the effect of a floor price (3 marks)
- (e). What is an effective floor price? (2 marks)
- (f). Discuss your view on price control (3 marks)

(Total 15 marks)

(05).

Briefly explain any **Five** of the followings

(3 marks for each)

- (a). Scarcity
- (b). Price Elasticity of Demand
- (c). Monopoly
- (d). Unemployment
- (e). Gross Domestic Product
- (f). Central Bank of Sri Lanka
- (g). Economic Impact of Budget Proposals 2016

(02).

- (a). Define "Demand" and "Quantity Demanded" (2 marks)
- (b). Explain the "Law of Demand" (2 marks)
- (c). Show in a diagram
  - i. Increase in income (1.5 marks)
  - ii. Increase in taste (1.5 marks)
  - iii. Increase in price of a complement (1.5 marks)
  - iv. Increase in price of a substitute (1.5 marks)
- (d). Define the "Supply Function" (2 marks)
- (e). Show a shift in supply in a diagram (3 marks)

(Total 15 marks)

(03).

Suppose a firm faces a cost function of  $C = 9 + 6Q + 2Q^2 - Q^3$

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**(Total 15 marks)**

