

GUJARAT TECHNOLOGICAL UNIVERSITY**M.E Sem-II Examination July 2010****Subject code: 721405****Subject Name: Value Engineering****Date: 08 /07 /2010****Time: 11.00am – 1.30pm****Total Marks: 60****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) “The Value engineering job-plan is a proven format for reducing cost in a project”- Justify the statement giving appropriate arguments. **06**
- (b) Describes the reasons for use of Five-phase VE job-plan in construction projects. **06**

- Q.2** (a) Justify following statements giving appropriate arguments: **06**
1. Item oriented cost reduction approach never leads to true worth.
 2. A value analysis team must be multidiscipline.
- (b) Describes and explain Five-phase job-plan application in value engineering study. **06**

OR

- (b) Discuss the importance and need of application of value engineering in Indian mega projects with the aim to combat project overruns. **06**
- Q.3** (a) Explain the term: Value. Discuss, giving suitable example, what it reflects about an item or a project? **06**
- (b) Enlists and explain various reasons causing poor value in construction projects. **06**

OR

- Q.3** (a) Differentiate between: Cost & Value. Classify different values used in VE analysis. **06**
- (b) State the importance of cost models in VE. Describe any one cost model along with its benefits. **06**

- Q.4** (a) Define following terms w. r. to VE: Function, cost of function and worth of function. Differentiate between a higher level function and lower level function. **06**
- (b) Write detailed note on: FAST diagramming. **06**

OR

- Q.4** (a) Explain the standard format of representing the function of any item or any thing during functional phase. What are the advantages of doing so? **06**
- (b) Discuss objectives of function phase. Enlists key methods used during functional analysis phase to find functions. **06**
- Enlists the maximum possible functions served by following:
1. Fly-over,
 2. Street light pole.

- Q.5** (a) What is importance of creative thinking in value analysis? Describes characteristics of creative people. **06**

- (b) State different creative problem solving techniques and explain procedure of any one. 06

OR

- Q.5** (a) Explain how 'necessity' and 'competition' stimulate the creativity? Enlists any other such factors if existing. 06
- (b) Answer following questions: 06
1. Explain the concept of life cycle costing approach.
 2. What you mean by 'filtration of ideas'? What one achieve through this?
