



DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER VII [IT]
SUBJECT: (IT714) KNOWLEDGE SYSTEMS

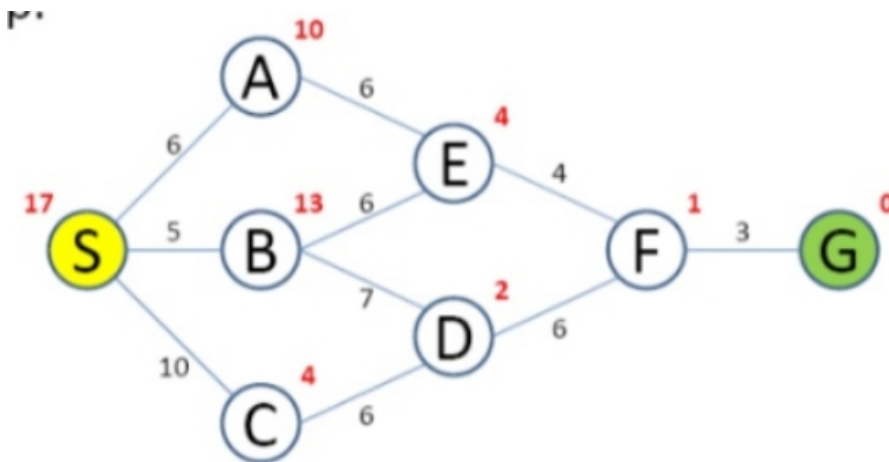
Examination : First Sessional	Seat No. : _____
Date : 06/08/2021	Day : Friday
Time : 3:00 to 3:45	Max. Marks : 16

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.2 Attempt **Any Two** from the following questions. **[8]**

- (a) What is Local maxima, ridge and plateau in Hill climbing algorithm? Also **[4]**
mention the technique to overcome it.
- (b) What is the difference between Iterative deepening DFS and Breadth First search? **[4]**
Take one running example and explain.
- (c) Solve the given graph problem using A* and Best First search. Maintain Open and **[4]**
closed node. Here S is the start node and G is the goal node. Values written on each
node is their heuristic values. And cost on the edge is



Q.3 (a) Take Eight tile puzzle or Block world problem and explain Production system. **[8]**
Write in detail about each part of production system. Also give some valid rules for
defined production system..

OR

Q.3 (a) Solve the given crypt arithmetic problem by applying searching by backtracking. **[8]**
Justify each step you decide to apply.
Note: No marks without justification

M O T H E R
+ F A T H E R
P A R E N T