

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2019****Subject Code: 2152206****Date: 06/06/2019****Subject Name: Underground coal Mining****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

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

- Q.1** (a) Write a short note on Rank of Coal. **03**
(b) Explain the classification of mining methods. **04**
(c) Explain the various origin of coal. **07**
- Q.2** (a) Define the Coal. Explain various types of coal. **03**
(b) Discuss shape and size of panel system used in mining. **04**
(c) Explain the hydraulic stowing method with neat sketch. **07**
- OR**
- (c) Describe the origin of stratified deposits. **07**
- Q.3** (a) Explain various coal resources in India. **03**
(b) Discuss the cycle of operation in mining. **04**
(c) Define stowing and write their principal of working. **07**
- OR**
- Q.3** (a) Discuss the application of panel system. **03**
(b) What are the precautions against fire during and after depillaring operation? **04**
(c) Explain the differential between board & pillar and long wall mining. **07**
- Q.4** (a) Define: Gallery, Panel and District. **03**
(b) Write note on Characteristics of Roof and Floor. **04**
(c) Describe various factors are influencing for the choice of Mining Method. **07**
- OR**
- Q.4** (a) Explain: Why in India only most of Board and Pillar Method is used? **03**
(b) Write advantages and disadvantages of Board and Pillar Method. **04**
(c) Write a short note on Long wall advancing method. **07**
- Q.5** (a) Define: Stook, Barrier and Chokidar. **03**
(b) Write note on Hand Packing Method of stowing. **04**
(c) Explain Board and Pillar Method in brief with neat sketch. **07**
- OR**
- Q.5** (a) What are the disadvantages of stowing methods? **03**
(b) Describe the extraction of pillars in contiguous seam. **04**
(c) Write notes on Hydraulic profile and H: L ratio in hydraulic stowing System. **07**
