	/	GBCS Scheme	
USN	=		ISMN52
		Fifth Semester B.E. Degree Examination, Dec.2017/Jan.20	110
		Mine Mechanization – II	310
		mile Mechanization = 11	
Tim	·	3 hrs.	N 1 00
1 1111		NIAA.	Marks: 80
	14	ote: Answer any FIVE full questions, choosing one full question from each i	nodule.
a .		Module-1	
1	a. b.	Explain working and construction of centrifugal pump with neat sketch.	(08 Marks)
	υ.	Explain working, advantages and disadvantages of Reciprocating pump (pump) with neat sketch.	(08 Marks)
			(00 Marks)
		OR OR	
2	a.	A pump delivers 1820 ltr of water per minute against a total head of 300m. Calli) The H.P of pump	culate:
		ii) The H.P of input to motor	
		iii) Cost of running of pump for 1 day	
		Given: efficiency motor is 60% and electrical energy is 10 paise per kW hours.	(1 HP hour =
	h	0.75 kwh) Calculate the Dimensions of a Turbine pump and of suction and delivery bran	(08 Marks)
	0.	for raising 1.8 kilolitres of water per minute against a total head of 250 meters.	nches suitable (08 Marks)
			(oo marks)
		Module-2	
3	a.	Explain the applicability, advantages and disadvantages of Double Ranging she	
	b.	Sketch a neat diagram of Double Ranging sheerer and label it	(08 Marks) (08 Marks)
			(-2)
4	a.	Explain the applicability, advantages and disadvantages of continuous miner.	(00.3%
	b.	i) What is the working principle of coal plough?	(08 Marks) (02 Marks)
		ii) Discuss the advantages and disadvantages of coal plough.	(06 Marks)
5	а	i) What is a canopy?	(02 341

ii) Explain various types of canopies.

(06 Marks)

Classify various types of chock shield supports and explain them with neat sketch (08 Marks)

OR

Explain working principle, advantages and disadvantages of LHD.

(08 Marks)

Explain working, applicability, advantages and disadvantages of Rocker shovel with a neat sketch. (08 Marks)

15MN52

Module-4

7 a. With a neat sketch, explain about belt conveyor.

(08 Marks)

b. List out various types of Trackless equipments used in underground mines.

(08 Marks)

OR

8 a. With a neat sketch, explain about high angle conveyor. (08 Marks)
b. With a neat sketch, explain about side discharge loader (08 Marks)

Module-5

9 a. Explain maintenance management in mines.
b. Explain the safety features of mining machineries. (08 Marks)
(08 Marks)

<>OR > >>

10 a. Explain Remote monitoring and controlling in mines.
b. i) What is CAD?
(02 Marks)
ii) Explain the main Applications of CAD.
(06 Marks)