

**FOR EVALUATOR'S USE ONLY**

Sub. Code : **22**

Optional Paper

**Mining Engineering : Paper – II**

Time : 3 Hours / Maximum Marks : 200 / Total Pages : 32

**Evaluation Table**

(For Evaluator's Use Only)

PART-A				PART-B				PART-C				Grand Total	
QN	E-1	E-2	AC	QN	E-1	E-2	AC	QN	E-1	E-2	AC	PART-A	
1				21				33				PART-B	
2				22				34				PART-C	
3				23				35				Total	
4				24				36				(-) Marks	
5				25				37				Final Total	
6				26				38				Marks in Words	
7				27				39					
8				28									
9				29									
10				30									
11				31									
12				32									
13													
14													
15													
16													
17													
18												Remarks of Scrutiniser	
19													
20													
Total													
Evalu ator's Sign													

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Note : Attempt all the twenty questions. Each question carries 2 marks. Answer should not exceed 15 words.

1 Define "Agent" as per the Mines Act 1952.

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2 What is Afterdamp ?

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3 What is Geodetic Surveying ?

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4 What is system ?

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5 Define "Blaster" as per Metalliferous Mines Regulation 1961.

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6 What is Geo-thermal gradient ?

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7 What is the Point of Curve ?

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8 Explain Industrial psychology.

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9 Define "Dead rent" as per Rajasthan Minor Mineral Concession Rules 1986.

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10. What is Ascensional Ventilation ?

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11. Draw the symbol of Explosion proof Air crossing used in a plan.

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12. What is computed grade in the reserve estimation ?

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13 What is AOA system in CPM ?

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14 Define "Marble" as per Marble Development and Concession Rules.

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15 What is the formula for ascertaining combined resistance of underground roadways distributing into various splits ?

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16 What is Cash Flow ?

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17 What is P.E.R.T ?

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18 What is Equivalent Orifice of a mine ?

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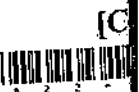
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19 What are main parameters in spatial characteristics of deposit ?

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20 What is stone dust barrier ?

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PART - B

Mark

Note : Attempt all the twelve questions. Each question carries 5 marks. Answer not exceed 50 words.

21 Explain the mechanism of development of Spontaneous combustion.

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22 What are various types of effects, different fire extinguishers uses to extinguish the

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ks : 60  
r should

23 What is Geo-statistical method of reserve estimation ?

ine fire?

24 What is T.Q.M ? What are the tools of TQM?



25 What are the duties and responsibilities of owner, agent and managers according to Mine Act 1952 ?

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26 What are various provisions for preparing a Mining plan by recognized person as per the Marble Policy, 2002 by GOR ?

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27. Why the E&W are transposed in Surveyor's Compass ?

Explain various reclamation standards / areas to be considered for proper reclamation.



29 Draw a schematic diagram of Wheatstone bridge based Methanometer.

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30 What are the standards of ventilation under CMR ?

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31 List out various tools of decision making in a Mining Engineering project.

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32 Elaborate the advantages of collective decision making.

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Note : Attempt any 5 questions. Each question carries 20 marks. Answer should not exceed 200 words.

33 Enumerate and explain the provisions of Mine Closure Plan under Mineral Concession and Development Rules 1988 and amended in 2003. Your answer must include provisions regarding types of closure plan, their process of preparation and submission, modifications, financial assurance and responsibility of lease holder.

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34 Explain the phenomenon of Natural Ventilation. How the calculation of N.V.P. can be performed? Compare the natural ventilation with mechanical ventilation.

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- 35 Explain the Environmental Impacts due to Marble Mining and Processing in Rajasthan. Your answer must include nature and details of waste generation, factor responsible for environment changes, various impacts due to marble industry and special reference to marble slurry problem.

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- 37 Enumerate and explain various steps of Estimating Mining Cost of an opencast project. Your answer must be through examples.

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39 What is Operation Research ? Explain phases, scope and methodology of Operati  
Research.



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SPACE FOR ROUGH WORK / रफ कार्य के लिए जगह

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