

JET-2022 Mining Sample Construct

- **Domain**

1. What is RL

| | |
|--------------------|----------------------|
| a) Reference level | c) Referral level |
| b) Reduced Level | d) None of the above |

2. What is the maximum permissible haul road gradient?

| | |
|------------|------------|
| a) 1 in 14 | c) 1 in 16 |
| b) 1 in 5 | d) 1 in 7 |

3. Natural errors in measurements are caused by

| | |
|----------------|-----------------|
| a) Temperature | c) Gravity |
| b) Humidity | d) All of these |

4. Angular measurements are done with

| | |
|---------------|----------------|
| a) Compass | c) Dumpy Level |
| b) Theodolite | d) a & b |

5. What is AFDSS

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|---|--|
| a) Auto fire diode & suspension system | c) Auto fire deal & suppression system |
| b) Auto fire detection & suppression system | d) Auto fire detection & solution system |

6. How to increase tire life

| | |
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| a) Minimize of the reverse of dumper | c) Better Haul road condition |
| b) Slow speed of dumper | d) All of these |

7. What is the position of shovel boom & bucket while propelling

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| a) Boom align with the direction of travel & bucket 0.5 mt above the ground | c) Boom align with the direction of travel & bucket 2.5 mt above the ground |
| b) Boom align with the direction of travel & bucket 1.5 mt above the ground | d) None of the above. |

8. What is the parking position of the shovel at the shift end?

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|---|-----------------------------------|
| a) All hyd. cylinders are in the closed position with bucket rest in the ground | c) Only bucket rest in the ground |
| b) All hyd. cylinders are in the open position | d) None of the above. |

9. What is the minimum width of Haul Road in o/c mine as per by-laws?

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|---|---|
| a) not less than 3times the width of dumper plying in mine plus 5 m | c) not less than 4 times the width of dumper plying in mine |
| b) not less than 5 times the width of dumper plying in mine | d) None of these |

10. What is the permissible limit of the gradient of Haul Road in O/c Mine?

| | |
|-----------------------|-----------------------|
| a) 0.0527777777777778 | c) 0.0513888888888889 |
| b) 0.05 | d) 0.0541666666666667 |

11. What is Backfill in mines?

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|---|----------------------|
| a) water is used to fill up after the removal of minerals in mines | c) Both a & b |
| b) Any material that is put back in place of the extracted ore to provide ground support. | d) None of the above |

12. What do you mean by Barren in mines?

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|--|----------------------|
| a) Vein material containing minerals of value, | c) Both a & b |
| b) Vein material containing no minerals of value | d) None of the above |

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13. Safety precaution while driving
 - a) Maintain a Safe speed limit
 - b) Follow traffic Rule
 - c) Use seat belt
 - d) All of the above
14. Dump body hoist alarm of dumper indicates
 - a) Wheel Choke is engaged
 - b) Dump body is lifted condition
 - c) Wheel Jack in lifted condition
 - d) All of these
15. Which does the Inspector give an order in writing to supply cool water to the employee of opencast working?
 - a) Where 50 or more persons are employed
 - b) Where 75 or more persons are employed
 - c) Where 100 or more persons are employed
 - d) Where 150 or more persons are employed
16. Which document is required for contractors to proceed with work as per TATA guideline
 - a) Workbook
 - b) Work permit
 - c) Work card
 - d) Any of these
17. Rotary drill affects
 - a) penetration rate
 - b) rotation speed
 - c) pull-down weight
 - d) All of these
18. Drill Pattern mostly used
 - a) Diagonal pattern
 - b) Line pattern
 - c) Square pattern
 - d) All of the above
19. The disadvantage of inclined drill in blast holes
 - a) Difficult to drill
 - b) Difficult in charging and loading explosives
 - c) Risk to borehole collapse
 - d) All of the above
20. Drilling job in Mines directed by
 - a) Engineer
 - b) overman
 - c) Asst. Manager
 - d) The Mining Sirdar
21. The wide stall method of working is
 - a) A method of extraction of the pillar by widening of galleries
 - b) By widening the gallery with/without stowing
 - c) Leaving one remnant pillar
 - d) All of the above
22. Working in a mine where work has been temporarily stopped is called
 - a) Panel
 - b) Disused working
 - c) District panel
 - d) Sump.
23. In depillaring operation of contiguous seam
 - a) Both the lower seam and the upper seam will be worked together
 - b) The lower seam can be extracted earlier
 - c) The upper seam can be extracted earlier
 - d) Bothe seam can be extracted simultaneously with the paper seam depillared one pillar in advance, if the seam inclination is within 30 degrees.
24. Limitation of longwall faces-not suitable for
 - a) Geologically disturbed area
 - b) Thin seam
 - c) Ultra-thick seam
 - d) All of the above
25. What shall be the representative factor of the scale of offset plan of depillaring section handed over to Overman?
 - a) 1:500
 - b) 1:1000
 - c) 1:2000
 - d) 1200:1

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26. What shall be the length of scale on every plan & section?
 - a) At least 25 cm
 - b) Below 25 Cm
 - c) Above 25 Cm
 - d) None of these
27. Plan table surveying uses the methodology of
 - a) triangulation
 - b) contouring
 - c) ranging
 - d) traversing
28. A plumbing fork is used to _____ the plane table
 - a) focus
 - b) center
 - c) orient
 - d) level
29. What is the minimum clearance between the diameter of the explosive & diameter of the shot hole?
 - a) 6 millimetres
 - b) 5 millimetres
 - c) 3 millimetres
 - d) None of these
30. What is the pre-start check of the driller?
 - a) Straightness of the drill rod
 - b) Straightness of the drill rod
 - c) free rotation of chuck & direction of drill m/c
 - d) All of the above
31. What are different drilling M/c currently used in underground mines?
 - a) Electric Drill m/c
 - b) Pneumatic drill m/c
 - c) Universal Drill M/c.
 - d) All of the above
32. What shall be the distance between two flank boreholes
 - a) Not less than 3 meter
 - b) Not less than 5 meter
 - c) Not less than 1.5 meter
 - d) None of these
33. A pump which piston run to and fro is known as
 - a) Reciprocating pump
 - b) drill pump
 - c) mono pump
 - d) None of these
34. The thickness of brick dam should not be less than
 - a) 1.0 M
 - b) 1.0 M
 - c) 1.80 M
 - d) None of these
35. What is the capacity of 6L3 Pump
 - a) 1000 gpm
 - b) 500 gpm
 - c) 800 gpm
 - d) None of these
36. The ratio of Carbon monoxide produced and oxygen consumed is called
 - a) Willet's Ratio
 - b) Graham's Ratio
 - c) Jhones & Tricketts Ratio
 - d) None of these
37. What is the sand to water ratio in deep mines by volumes?
 - a) 1:1
 - b) 1:1.3
 - c) 1:2
 - d) None of these
38. What shall be size of grizzly of Mixing Chamber Grizzly?
 - a) 1 to 1.5 inch
 - b) 2 to 2.5 inch
 - c) 2 to 2.5 inch
 - d) None of these
39. Which of the following is not the types of stowing
 - a) Hydraulic Stowing
 - b) Pneumatic Stowing
 - c) Mechanical Stowing
 - d)

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40. What is a hydraulic profile
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|--|------------------|
| a) Configuration of stowing pipeline at underground | c) Both a & b |
| b) the pipe layout from the surface of stowing installation arrangement to the site of discharge | d) None of these |
41. What is the recommended R.P.M of pneumatic drill m/c of Rana Make?
- | | |
|------------|------------------|
| a) 650-750 | c) 850-950 |
| b) 750-850 | d) None of these |
42. Contiguous seams are seams
- | | |
|----------------------------------|-----------------------------------|
| a) Within 9 meters of each other | c) Within 15 meters of each other |
| b) Within 5 meters of each other | d) None of these |
- **IoT**
43. PDCA cycle is the contribution of
- | | |
|--------------------|---------------------|
| a) Walter Shewhart | c) Genichi Taguchi |
| b) Philip Crosby | d) W. Edward Deming |
44. In absence of daily management?
- | | |
|--|--|
| a) Nothing big can be change | c) No change in gain achieved by policy management |
| b) The gain achieved by policy management go into vain | d) Cost of operation will reduce |
45. Which one in the following is not Machine Learning disciplines?
- | | |
|-----------------------|-------------------------|
| a) Physics | c) Neuro statistics |
| b) Information Theory | d) Optimization Control |
46. Which of these is a Lazy Learner Technique?
- | | |
|-------------------|------------------------|
| a) Decision Trees | c) K-Nearest Neighbour |
| b) Apriori | d) All of these |
47. Which of the following is not a crypto-currency?
- | | |
|------------|-------------|
| a) Bitcoin | c) Litecoin |
| b) Ripple | d) Dollar |
48. Steps to turn big data become smart data. Please choose the correct one.
- | | |
|--|--|
| a) Data > Knowledge > Information > Wisdom > Decisions | c) Data > Information > > Decisions > Wisdom > Knowledge |
| b) Data > Information > Knowledge > Wisdom > Decisions | d) Data > Information > Wisdom > Knowledge > Decisions |
49. What are the outcomes of the profound and systematic change of the fourth industrial revolution?
- | | |
|---|--|
| a) Producing objects that are mutable and adaptable | c) Producing objects that are mutable |
| b) Producing objects that are adaptable | d) Producing objects that are flexible |
50. What are the benefits of Industry 4.0 in terms of operation efficiency?
- | | |
|----------------------------------|---------------------------|
| a) Improved resource utilization | c) Increased productivity |
| b) Increased cost of products | d) Both (a) and (c) |

Disclaimer: The sample paper is for illustrative purposes alone. The actual jet exam may contain different numbers of total questions or duration.