

Answer any four questions.

- Q.1 (20)**
- a What precautions will you take while storing and handling explosives? 04
 - b State the roles & responsibilities of a material manager. 04
 - c Explain VED Analysis and SDE Analysis. 04
 - d What is a purchase order? Draw its typical format. 04
 - e State the procedure for condemnation of an equipment. 04
- Q.2 (20)**
- a Explain Vendor Analysis and its importance. 08
 - b Explain the challenges before HRM in Indian as well as global context. 07
 - c Elaborate: i) Job Description ii) Job Specification iii) Job Design. 05
- Q.3 (20)**
- a State the factors to be considered while selecting construction equipments for a project. 07
 - b How does jobsite layout & site inspection help in effective stores management? 07
 - c How does performance appraisal help in capacity building of a workforce? 06
- Q.4 (20)**
- a Discuss the objectives & Function of Human resource Planning. 08
 - b What is EOQ? The rate of use of a particular raw material from stores is 40/year. The cost of placing and receiving an order is Rs.80. The cost of each unit Rs200. The cost of carrying inventory in percent/year is 0.32 and it depends on the average stock. Determine i) The Economic order Quantity ii) if the lead time is 6 months, calculate recorder point. 08
 - c Justify: Bulldozer is a versatile equipment. 04
- Q.5 (20)**
- a Carry out ABC analysis and comment on the same. 08
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|---------------|-------|------|-----|-----|------|------|-------|-----|------|-----|
| Item No | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Unit cost | 5 | 11 | 15 | 8 | 7 | 16 | 20 | 4 | 9 | 12 |
| Annual Demand | 49000 | 3000 | 300 | 800 | 4700 | 1200 | 17000 | 400 | 5000 | 500 |
- b What are the objectives & importance of employee training? 06
 - c Write a note on indices used for assessing the effectiveness of inventory management. 06
- Q.6 (20)**
- a Earth is to be excavated from a pit and hauled to a construction site 2.4 kms away. Weight of earth = 1600 kg/m³, Swell of earth = 25 % , Haul resistance & Rolling resistance both are 23 kg/tonne. Earth will be excavated using a power shovel with an output of 214 m³/hour. Excavated earth will be hauled using tractor pulled dump wagon which is initially located at the excavation pit. The tractor engine is of 200 HP while the wagon capacity is 12 m³ heaped volume. The combined weight of tractor and wagon is 16700 kg. Speed of hauling vehicle in empty and full condition is 50 kmph and 30 kmph respectively. Calculate the number of trips required, number of hauling units needed and Volume hauled per unit. 10
 - b Enlist different drilling equipments. Differentiate between Percussion drill and Abrasion drill. 10
