**20CE701**

**Hall Ticket Number:**

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| **IV/IV B.Tech (Regular) DEGREE EXAMINATION** | | | | |
| **December, 2023** | | **Civil Engineering** | | |
| **Seventh Semester** | **Construction Management** | | | |
| **Time:** Three Hours | | | **Maximum:** 70 Marks | |
| ***Answer question 1 compulsory.*** | | | | **(14X1 = 14Marks)** |
| ***Answer one question from each unit.*** | | | | **(4X14=56 Marks)** |
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|  |  |  | CO | BL | M | |
| 1 | a) | Write objectives of planning. | CO1 | L1 | 1M | |
|  | b) | List any two advantages of planning. | CO1 | L1 | 1M | |
|  | c) | Write objectives of network techniques | CO1 | L1 | 1M | |
|  | d) | Define scheduling? | CO1 | L1 | 1M | |
|  | e) | Define slack | CO2 | L2 | 1M | |
|  | f) | What is dummy activity? | CO2 | L1 | 1M | |
|  | g) | What is critical path. | CO2 | L1 | 1M | |
|  | h) | Define earliest event time. | CO2 | L1 | 1M | |
|  | i) | Define float | CO3 | L1 | 1M | |
|  | j) | Write any two objectives of material management | CO3 | L1 | 1M | |
|  | k) | Define resource smoothing. | CO3 | L1 | 1M | |
|  | l) | What is resource levelling. | CO4 | L1 | 1M | |
|  | m) | What is the importance of quality control? | CO4 | L1 | 1M | |
|  | n) | Write about safety benefits to employers. | CO4 | L1 | 1M | |
| **Unit-I** | | | | | | | |
| 2 | a) | Write the steps involved in planning and principles of planning. | CO1 | L4 | 7M | |
|  | b) | What are the main causes of project failure. | CO1 | L1 | 7M | |
| **(OR)** | | | | | | | |
| 3 | a) | Explain different methods of scheduling. | CO1 | L1 | 7M | |
|  | b) | Explain in detail about factors affecting job layout. | CO1 | L2 | 7M | |
| **Unit-II** | | | | | | | |
| 4 | a) | Draw the network and Determine the Critical Path for the given activities of a project.   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Activity | 1-2 | 1-3 | 2-4 | 2-5 | 3-8 | 4-6 | 4-7 | 5-7 | 5-8 | 6-9 | 7-9 | 8-9 | | Duration (Days) | 2 | 6 | 4 | 5 | 5 | 3 | 0 | 4 | 6 | 6 | 5 | 4 | | CO2 | L4 | 8M | |
|  | b) | Write the advantages of network techniques over conventional techniques. | CO2 | L1 | 6M | |
| **(OR)** | | | | | | | |
| 5 | a) | The following are the activities of a project:   |  |  |  |  | | --- | --- | --- | --- | | Activity i-j | Optimistic To | Most likely TL | Pesimistic Tp | | 1-2 | 1 | 1 | 7 | | 1-3 | 1 | 4 | 7 | | 1-4 | 2 | 2 | 8 | | 2-5 | 1 | 1 | 1 | | 3-5 | 2 | 5 | 14 | | 4-6 | 2 | 5 | 8 | | 5-6 | 3 | 6 | 15 |  1. Draw the network diagram 2. Find the project length. | CO2 | L4 | 7M | |
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|  | b) | What is Probability of completion time for a project? | CO2 | L1 | 7M | |
| **Unit-III** | | | | | |
| 6 | a) | Write short notes on ABC classification of materials. | CO3 | L1 | 7M | |
|  | b) | Write about Earth moving equipment. | CO3 | L1 | 7M | |
| **(OR)** | | | | | | | |
| 7 | a) | Write about the Functions of material management department. | CO3 | L1 | 4M | |
|  | b) | Explain about the factors affecting cost owning and operating the equipment. | CO3 | L2 | 10M | |
| **Unit-IV** | | | | | | | |
| 8 | a) | Explain Organization for quality control. | CO4 | L2 | 6M | |
|  | b) | Explain in detail about the Quality control circles. | CO4 | L2 | 8M | |
| **(OR)** | | | | | | | |
| 9 | a) | What are the approaches to Prevention of fires in construction industries? | CO4 | L1 | 7M | |
|  | b) | Explain about the immediate attention in case of accident? | CO4 | L2 | 7M | |

