**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, November 2022**

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|  | **4BT7172** | Roll No. | Total Printed Pages: 2 |
| **4BT7172** |  |
| B. Tech. IV Year VII-Semester (Main/Back) End Semester Examination, November 2022  **(CV)** | |
| **BCV07104: Construction Planning & Management** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **.------------------Nil-----------------------** **2.------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | Write objectives and function of construction project management | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write short notes on followings-  (i) Resources used in construction (ii) Construction Team  (iii) Stages in construction | **(6)** | **Remembering** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.2** | **(a)** | Define Project Planning, What are the main causes of project failure? | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write short notes on followings-  (i) Net present value (ii) Benefit cost ratio (iii) Internal rate of return | **(6)** | **Remembering** |
|  |  |  |  |  |
|  |  | **UNIT-II (CO2)** |  |  |
|  |  |  |  |  |
| **Q.3** | **(a)** | What do you understand by Scheduling? Give difference between PERT and CPM. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Calculation of expected duration, standard deviation and variance using PERT analysis. | **(6)** | **Applying** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.4** | **(a)** | Define Bar-Chart, also discuss advantages and limitations of using Bar-Chart. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Prepare bar chart for following activity also gives completion date, if work starts from 01 September 2022. | **(6)** | **Applying** |
|  |  |  |  |  |
|  |  | **UNIT-III (CO3)** |  |  |
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| **Q.5** | **(a)** | Write importance of Time-Cost analysis; also discuss cost-time curve characteristics with the help of graph. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | What do you understand by resources allocation? | **(6)** | **Understanding** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.6** |  | Calculate Optimum time and minimum cost for the project network given in table. Assume indirect cost Rs.1000/day. Sketch the project cost diagram.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Activity | Normal Time (days) | Normal Cost  (Rupees) | Crash Time (days) | Crash Cost (Rupees) | | 1 – 2 | 5 | 4000 | 4 | 5000 | | 1 – 3 | 7 | 8000 | 3 | 10000 | | 2 – 3 | 6 | 6000 | 2 | 8400 | | **(12)** | **Applying** |
|  |  |  |  |  |
|  |  | **UNIT-IV (CO4)** |  |  |
|  |  |  |  |  |
| **Q.7** | **(a)** | What do you understand by tender? Write about elements of a tender operation. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Discuss important condition of contract. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.8** | **(a)** | What do you understand by Contract Document? Describe parts of contract documents. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | What is Arbitration? Discuss various advantages of Arbitration. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  |  | **UNIT V (CO5)** |  |  |
| **Q.9** | **(a)** | What are the causes and prevention of accidents at construction site? | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Define Project Management Information System and write benefits of computerized Information system. | **(6)** | **Evaluating** |
|  |  | **OR** |  |  |
| **Q.10** | **(a)** | Discuss about Safety measures to be followed in various construction works. | **(6)** | **Evaluating** |
|  |  |  |  |  |
|  | **(b)** | Write about Environmental and social aspects of various types of construction projects | **(6)** | **Understanding** |