Code No: R05220102 **R05** **Set No. 2**

**II B.Tech II Semester Examinations,December 2010**
**BUILDING PLANNING AND CONSTRUCTION MANAGEMENT**
**Civil Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. Write in detail the general requirements of a building for fire fighting. [16]
2. Explain briefly the basic parts of a belt conveyor system with neat sketches. [16]
3. (a) Write a detailed note on the factors to be considered for planning a bedroom.
   (b) Write the list of all furniture required in a bedroom, including wardrobe and write the sizes of each. [8+8]
4. Write short notes on any two of the following:
   (a) Operation of Power shovel
   (b) Working of Bull dozer
   (c) Applications of Scraper. [16]
5. Table below gives the information about various activities of network.

| Activity | Normal duration in (weeks) | Normal cost (Rs.) | Crash duration (weeks) | Crash cost (Rs.) |
|---|---|---|---|---|
| 1-2 | 4 | 4000 | 2 | 12000 |
| 2-3 | 5 | 3000 | 2 | 7500 |
| 2-4 | 7 | 3600 | 5 | 6000 |
| 3-4 | 4 | 5000 | 2 | 10000 |

The project over head costs @ Rs. 2000 per week. Find the optimum duration and the cost associated with it. Also draw the least cost network. [16]

6. Design a library building for a college for the following requirements and draw the line diagram.
   (a) Entrance Hall - 10 sqm
   (b) Librarian?s room - 15 sqm.
   (c) Stack room - 20 sqm.
   (d) Store room - 25 sqm.
   (e) Issue section - 15 sqm
   (f) Reference room - 30 sqm

(g) Reading room - 15 sqm

(h) Office room - 15 sqm

(i) Toilet blocks as required. [16]

7. A maintenance project consists of the following 10 activities, whose precedence relationships are identified by their node numbers.

| Activity | Alternative (initial Final node, node) | Estimated duration (days) |
|---|---|---|
| A | (1,2) | 2 |
| B | (2,3) | 3 |
| C | (2,4) | 5 |
| D | (3,5) | 4 |
| E | (3,6) | 1 |
| F | (4,6) | 6 |
| G | (4,7) | 2 |
| H | (5,8) | 8 |
| I | (6,8) | 7 |
| J | (7,8) | 4 |

(a) Draw a network for the project

(b) Calculate earliest and latest activity times for each activity

(c) How much slack do activity (3,5) (4,6) and (7,8) have?

(d) Which activities are critical?

(e) If activity (2,3) were to take 6 days instead of 3 days, how much would the project finish data be affected? [16]

8. Tabulate the comparison between centrifugal pump and Reciprocating. [16]

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Code No: R05220102 **R05** **Set No. 4**

**II B.Tech II Semester Examinations,December 2010**
**BUILDING PLANNING AND CONSTRUCTION MANAGEMENT**
**Civil Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. Explain briefly the basic parts of a belt conveyor system with neat sketches. [16]
2. (a) Write a detailed note on the factors to be considered for planning a bedroom.
   (b) Write the list of all furniture required in a bedroom, including wardrobe and write the sizes of each. [8+8]
3. Tabulate the comparison between centrifugal pump and Reciprocating. [16]
4. Write in detail the general requirements of a building for fire fighting. [16]
5. Design a library building for a college for the following requirements and draw the line diagram.
   (a) Entrance Hall - 10 sqm
   (b) Librarian?s room - 15 sqm.
   (c) Stack room - 20 sqm.
   (d) Store room - 25 sqm.
   (e) Issue section - 15 sqm
   (f) Reference room - 30 sqm
   (g) Reading room - 15 sqm
   (h) Office room - 15 sqm
   (i) Toilet blocks as required. [16]
6. Table below gives the information about various activities of network.

| Activity | Normal duration in (weeks) | Normal cost (Rs.) | Crash duration (weeks) | Crash cost (Rs.) |
|---|---|---|---|---|
| 1-2 | 4 | 4000 | 2 | 12000 |
| 2-3 | 5 | 3000 | 2 | 7500 |
| 2-4 | 7 | 3600 | 5 | 6000 |
| 3-4 | 4 | 5000 | 2 | 10000 |

The project over head costs @ Rs. 2000 per week. Find the optimum duration and the cost associated with it. Also draw the least cost network. [16]

7. A maintenance project consists of the following 10 activities, whose precedence relationships are identified by their node numbers.

| Activity | Alternative (initial Final node, node) | Estimated duration (days) |
|---|---|---|
| A | (1,2) | 2 |
| B | (2,3) | 3 |
| C | (2,4) | 5 |
| D | (3,5) | 4 |
| E | (3,6) | 1 |
| F | (4,6) | 6 |
| G | (4,7) | 2 |
| H | (5,8) | 8 |
| I | (6,8) | 7 |
| J | (7,8) | 4 |

   (a) Draw a network for the project

   (b) Calculate earliest and latest activity times for each activity

   (c) How much slack do activity (3,5) (4,6) and (7,8) have?

   (d) Which activities are critical?

   (e) If activity (2,3) were to take 6 days instead of 3 days, how much would the project finish data be affected? [16]

8. Write short notes on any two of the following:

   (a) Operation of Power shovel

   (b) Working of Bull dozer

   (c) Applications of Scraper. [16]

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Code No: R05220102 **R05** **Set No. 1**

**II B.Tech II Semester Examinations,December 2010**
**BUILDING PLANNING AND CONSTRUCTION MANAGEMENT**
**Civil Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. (a) Write a detailed note on the factors to be considered for planning a bedroom.
   (b) Write the list of all furniture required in a bedroom, including wardrobe and write the sizes of each. [8+8]

2. Design a library building for a college for the following requirements and draw the line diagram.
   (a) Entrance Hall - 10 sqm
   (b) Librarian?s room - 15 sqm.
   (c) Stack room - 20 sqm.
   (d) Store room - 25 sqm.
   (e) Issue section - 15 sqm
   (f) Reference room - 30 sqm
   (g) Reading room - 15 sqm
   (h) Office room - 15 sqm
   (i) Toilet blocks as required. [16]

3. Table below gives the information about various activities of network.

| Activity | Normal duration in (weeks) | Normal cost (Rs.) | Crash duration (weeks) | Crash cost (Rs.) |
|---|---|---|---|---|
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   The project over head costs @ Rs. 2000 per week. Find the optimum duration and the cost associated with it. Also draw the least cost network. [16]

4. Tabulate the comparison between centrifugal pump and Reciprocating. [16]

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   (a) Operation of Power shovel

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|---|---|---|
| A | (1,2) | 2 |
| B | (2,3) | 3 |
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| F | (4,6) | 6 |
| G | (4,7) | 2 |
| H | (5,8) | 8 |
| I | (6,8) | 7 |
| J | (7,8) | 4 |

(a) Draw a network for the project

(b) Calculate earliest and latest activity times for each activity

(c) How much slack do activity (3,5) (4,6) and (7,8) have?

(d) Which activities are critical?

(e) If activity (2,3) were to take 6 days instead of 3 days, how much would the project finish data be affected? [16]

7. Write in detail the general requirements of a building for fire fighting. [16]

8. Explain briefly the basic parts of a belt conveyor system with neat sketches. [16]

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Code No: R05220102 **R05** **Set No. 3**

**II B.Tech II Semester Examinations,December 2010**
**BUILDING PLANNING AND CONSTRUCTION MANAGEMENT**
**Civil Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. Write short notes on any two of the following:
   (a) Operation of Power shovel
   (b) Working of Bull dozer
   (c) Applications of Scraper. [16]
2. Write in detail the general requirements of a building for fire fighting. [16]
3. (a) Write a detailed note on the factors to be considered for planning a bedroom.
   (b) Write the list of all furniture required in a bedroom, including wardrobe and write the sizes of each. [8+8]
4. Tabulate the comparison between centrifugal pump and Reciprocating. [16]
5. Table below gives the information about various activities of network.

| Activity | Normal duration in (weeks) | Normal cost (Rs.) | Crash duration (weeks) | Crash cost (Rs.) |
|---|---|---|---|---|
| 1-2 | 4 | 4000 | 2 | 12000 |
| 2-3 | 5 | 3000 | 2 | 7500 |
| 2-4 | 7 | 3600 | 5 | 6000 |
| 3-4 | 4 | 5000 | 2 | 10000 |

The project over head costs @ Rs. 2000 per week. Find the optimum duration and the cost associated with it. Also draw the least cost network. [16]

6. Design a library building for a college for the following requirements and draw the line diagram.
   (a) Entrance Hall - 10 sqm
   (b) Librarian?s room - 15 sqm.
   (c) Stack room - 20 sqm.
   (d) Store room - 25 sqm.
   (e) Issue section - 15 sqm
   (f) Reference room - 30 sqm

(g) Reading room - 15 sqm

(h) Office room - 15 sqm

(i) Toilet blocks as required. [16]

7. A maintenance project consists of the following 10 activities, whose precedence relationships are identified by their node numbers.

| Activity | Alternative (initial Final node, node) | Estimated duration (days) |
|---|---|---|
| A | (1,2) | 2 |
| B | (2,3) | 3 |
| C | (2,4) | 5 |
| D | (3,5) | 4 |
| E | (3,6) | 1 |
| F | (4,6) | 6 |
| G | (4,7) | 2 |
| H | (5,8) | 8 |
| I | (6,8) | 7 |
| J | (7,8) | 4 |

(a) Draw a network for the project

(b) Calculate earliest and latest activity times for each activity

(c) How much slack do activity (3,5) (4,6) and (7,8) have?

(d) Which activities are critical?

(e) If activity (2,3) were to take 6 days instead of 3 days, how much would the project finish data be affected? [16]

8. Explain briefly the basic parts of a belt conveyor system with neat sketches. [16]

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