



ID NO.	
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PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Weightage: 40 %

Max Marks: 80

Max Time: 2 hrs.

11 May 2018, Friday

ENDTERM FINAL EXAMINATION MAY 2018

Even Semester 2017-18

Course: **CIV 306 Principles of
Construction Management**

VI Sem. Civil

Instructions:

- (i) Read the question properly and answer accordingly.
 - (ii) Question paper consists of 3 parts.
 - (iii) Scientific and Non-programmable calculators are permitted.
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Part A

(5 Q x 4 M = 20 Marks)

1. What is Strategic Planning?
2. What is Earliest Start Time and Earliest Finish Time?
3. What do you understand by the term “critical path” of a project?
4. What are the typical claims against “Owner / Client” of a project?
5. What do you understand by “WBS” of a project?

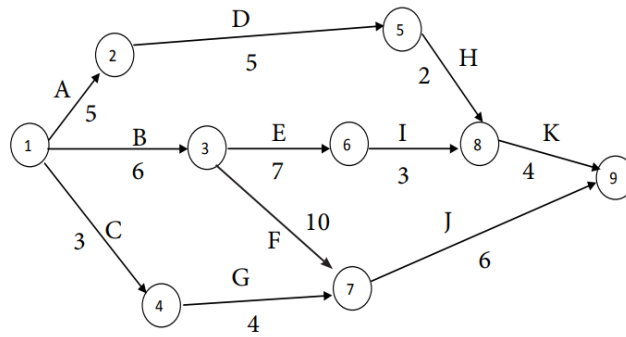
Part B

(3 Q x 10 M = 30 Marks)

6. Explain the FIDIC procedure for Contractor’s claims with the help of a flow chart in accordance to the clauses set out in new red book.
7. Draw the Network diagram for the activities with the detail of activities as given below.

Activity	Immediate Predecessor Activity
A	-
B	A
C,D	B
E	C
F	D
G	E,F

8. Find the project completion period and critical path for the network given below.



Part C

(2Q x 15 M = 30 Marks)

9. Calculate the contract value, project cash flow and draw the S-curve for the given project details.

Activity	Activity Description	Unit	Quantity	Rate Rs.	Week1	Week2	Week3	Week4	Week5	Week6
1	Embankment	CuM	5000	200	500	1000	2000	1500		
2	Subgrade	CuM	3000	300	500	500	1000	1000		
3	GSB	CuM	1200	2000	200	200	400	400		
4	WMM	CuM	1500	2500		400	400	400	300	
5	DBM	CuM	900	10000				450	450	
6	BC	CuM	300	12000					250	50

10. Calculate the 'Schedule variance', 'Schedule performance index', 'Cost variance' and 'Cost performance index' for the details given below.

Project Details – Concreting work

Total Concrete for the Project = 1000 Cum

Project Duration = 20 Days

Total Project Cost as per Budget = Rs. 5,000,000

Assume steady rate of concreting each day.

Progress at the end of 10 days

Concreting Achieved = 450 Cum

Amount Expended = Rs. 1,800,000



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28 March Wednesday 2018

TEST – 2

SET A

Even Semester 2017-18 Course: **CIV 306 Principles of Construction Management** VI Sem. Civil

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- (i) Read the question properly and answer accordingly.
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Part A

(4 Q x 4 M = 16 Marks)

1. List out the factors governing Mixing of Concrete in a Concrete Mixer.
2. Define depreciation. In the same context shortly explain the terms “Useful Economic Life” and “Residual Value”.
3. In terms of Construction hazards, when / where is the fall protection needed?
4. List out the objectives of ensuring “Quality” while executing a project.

Part B

(2 Q x 6 M = 12 Marks)

5. A construction organization invested in a transit mixer with the cost of the asset being Rs 12,400,500/-. The Plant and Machinery department estimated the useful period of the equipment to be 5 years and the salvage value to be 2,100,000/-.
 - a. What is the annual Charge for depreciation as per straight line method?
 - b. What is the annual depreciation rate as per reducing balance method?
6. What are the potential risk areas of a project?

Part C

(1Q x 12 M = 12 Marks)

7. List down the risk mitigation strategies for (i) Technical risks, (ii) Cost risks and (iii) Schedule risks.

OR

Explain in brief about the following construction Equipment – (Any 3)

- a. Power Shovel
- b. Motor Grader
- c. Mobile Crane
- d. Smooth Wheeled Roller



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20 Feb Tuesday 2018

TEST – 1

Even Semester 2017-18 Course: **CIV 306 Principles of Construction Management** VI Sem. Civil

Instruction:

- (i) Read the question properly and answer accordingly.
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Part A

(4 Q x 4 M = 16 Marks)

1. List out the stakeholders in projects, Construction sector.
2. List out the Construction Project categories / sectors.
3. What do the following acronyms (in construction sector) stand for (any four)
 - a. FIDIC
 - b. DBFOT
 - c. EPC
 - d. BOT
 - e. COPA
 - f. GCC
4. List out the various forms of Contract documents.

Part B

(2 Q x 6 M = 12 Marks)

5. What are the merits and demerits of
 - a. Line type Organization
 - b. Functional Organization
6. What are the critical competencies of a Project Manager?

Part C

(1Q x 12 M = 12 Marks)

7. Draw a neat sketch of an Organization Chart (functional type) proposal of a Highway Project which has been awarded to your organization with a project cost of Rs. 500 Cr. on EPC basis.

OR

8. Explain the importance of the following terms mentioned in a FIDIC Contract Agreement.
 - a. Base Date
 - b. Commencement date
 - c. Defects notification period
 - d. Priority of documents