

Time: ~~Two hours~~ / Three hours / ~~Four hours~~ / ~~Six hours~~

Full Marks: 100

(60 marks for this part)

Use a separate Answer-Script for each part

No. of Question	Part-I	Marks
<b><u>Answer Question-1 and any two from the rest</u></b>		
Q.1) a)	Discuss in brief on different <b>participants</b> engaged in an EIA project.	4
b)	Differentiate between <b>conservative</b> and <b>non-conservative constituents</b> of a riverine system	3
c)	Deduce the necessary expression for " <b>O'Connor Model</b> " of determining the concentration of a conservative constituent in a riverine system.	9
d)	Delineate the basic steps associated with the prediction of changes and assessment of impact of consequent changes in <b>noise environment</b> .	10
e)	What are the various parameters used for describing the impact of a project in a qualitative manner?	4
Q.2) a)	State the basic assumptions behind the formulation of " <b>CFSTR Model</b> ".	2
b)	Deduce the pertinent expression for estimating the pollutant concentration assuming a river reach as a <b>PFR</b> . A river reach is assumed to have a <b>plug flow hydraulic regime</b> .	6
c)	Determine the effluent concentrations after <b>2.5 days</b> with proper <b>interpretation</b> under following circumstances. i) Without retardation reaction. ii) With retardation reaction having order of kinetics <b>n=1.0</b> iii) With retardation reaction having order of kinetics <b>n=1.5</b> Given, Concentration of pollutant entering the river reach = <b>C<sub>0</sub> = 230mg/L</b> Rate constant ( <b>K</b> ) = <b>0.34/day</b> Retardation coefficient ( <b>r<sub>t</sub></b> ) = <b>0.725/day</b>  <b>(Assume any other relevant data, if required)</b>	7

**M.E. CIVIL ENGINEERING 1<sup>st</sup> YEAR 1<sup>st</sup> SEMESTER EXAMINATION, 2018****(1<sup>st</sup> / 2<sup>nd</sup> Semester / Repeat / Supplementary / Annual / Biannual)****SUBJECT: ENVIRONMENTAL IMPACT ASSESSMENT****Full Marks:****Time: ~~Two hours~~/Three hours/~~Four hours~~/~~Six hours~~****(60 marks for this part)****Use a separate Answer-Script for each part**

No. of Question	Part-II	Mark
Q.3) a)	What are the essential features of “ <b>Overlay methods of Environmental Impact Analysis</b> ”?	4
b)	Discuss in brief on the steps followed in the “ <b>Semi-quantitative Index Method of Environmental Impact Analysis</b> ” to estimate the potential environmental impact.	8
c)	State the fundamental differences between “ <b>Scaling Checklists</b> ” and “ <b>Scaling Weighting Checklists</b> ”.	3
Q.4) a)	What are the essential features of a full-proof <b>Environmental Management Plan (EMP)</b> ?	4
b)	Describe the <b>three-step process</b> applied for impact mitigation for any type of developmental project	7
c)	State the <b>mitigation measures</b> recommended by MoEF for water environment.	4

**Master of Civil Engineering 1<sup>st</sup> Semester Examination 2018****Environmental Impact Assessment**

Time: Three Hours

Full Marks: 100

Mark

Use separate answer script for each part (60 marks for Part I and 40 marks for Part II)

4

**Part-II**Answer **Question No. 1** and any **Two** from the rest. Answers should be brief. **Please answer Question No. 1 first.**

8

Answer the followings very briefly:

3

a) What is the significance of the date 18<sup>th</sup> May, 2006 with respect to environmental management in India?

b) Mention the type of project for which Environmental Impact Assessment (EIA) was started first in India.

4

c) Why is modeling essential in an EIA study?

7

d) Mention the gap (in years) between administrative introduction and legal introduction of EIA in India.

4

e) Name all the three authorities who can give prior Environmental Clearance (EC).

f) Give examples of screening based on nature &amp; scale of activity.

g) What must be done by the proponent before application for EC?

h) Why is 'base line standard' so called? i) What should be the *validity* of ToR?

j) What is the similarity between LCA and EIA? k) Who can be the Member Secretary of SEIAA?

l) Name the screening committee for B category projects. m) What is the purpose of form 1M?

n) As 'MoEF &amp; CC' to Center and 'SEIAA' to State, what may be to district?

o) Write the full forms of (i) NEPA (ii) MoEF &amp; CC. p) How are the B2 projects appraised?

q) What is the validity of EC for a normal project?

r) Give example of a category B1 project, where the EIA process may have only three stages.

s) What is the time limit for conveying ToR to the proponent?

t) Where is the procedure for conduct of public hearing given in EIA notification?

1x20=20

**Master of Civil Engineering 1<sup>st</sup> Semester Examination 2018**

**Environmental Impact Assessment**

Time: Three Hours

Full Marks: 100

Use separate answer script for each part (60 marks for Part I and 40 marks for Part II)

**Part-II**

2. a) Mention threshold limits related with EIA for Mining of minerals. 'The process of granting EC for sustainable sand mining and mining of minor minerals has been decentralized'-explain.  
b) Mention the 'General Condition'. Comment about its latest amendment. 6+4=10
3. a) Mention four others tools than EIA to select suitable option for a project from alternatives.  
b) Give two examples where consideration of alternative location is not possible. What is 'no-go' alternative?  
c) Draw a flow chart to show the steps to get prior EC for an industrial project. 2+3+5=10
4. a) What is common about items 4(d), 4(f), 5(e), 5(f) of the Schedule? Name at least two items.  
b) Mention the differences between followings:  
(i) SEIAA & DEIAA  
(ii) pre & post monitoring  
(iii) public consultation & public hearing 4+6=10