



GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA

(AN AUTONOMOUS COLLEGE U/S 2(F) & 12(B) OF UGC ACT - 1956)
AICTE Approved, Punjab Govt. Aided Status ISO : 9001:2003 Certified Affiliated to I.K. Gujral PTU Jalandhar
IEI Accredited UG Programmes, Institute Accredited by NAAC (A Grade) & TCS

(I)

Dated 29/9/2022 Class IT Sec B

Class Roll No. 1921142 Subject EIA

University Roll. No. 1905392 Signature of Invigilator

Q. No.	1	2	3	4	5	6	7	Total Marks	Sig. of Examiner
Marks								<u>13</u>	<u>M. K. Singh</u> <u>3/9/22</u>

Q1 ① Local communities can accurately tell about the impacts of various activities.

② Therefore this would in turn help in for mitigation. (1)

③ The assessment could be completed in a short amount of time.

④ The views of local community would be honest & that is one of the requirement of EIA.

Q1A Slope of EIA

less.

Q3 ① less man power & time →

The methodology should take less time & should require less man power

② Cost effective → (2)

The methodology selected should be cost effective.

③ Display all of the necessary information →

The methodology should display all of the required & necessary information. All of the decisions should be clearly mentioned.

④ Simple methodology→

The methodology selected should not be complicated & should be simple.

⑤ Feasible methodology→

The ~~method~~ methodology selected should be feasible for the given activities. (1)

⑥ Specific methodology→

Specific parameters of the impacts should be identified.

Q 4 The process of EIA is mainly divided into 2 phases, phase I & phase II

Phase I →

① Understanding the activity→ (R1)

- The first step is to understand why the activity is being performed.
- The question of why is answered in objective document of the activity. This represents the cause of the activity. Ex building road is not objective, but connecting to different city is.

② Screen the activity→

- Screening of the activity refers to the impacts of the activity.

- The outcome of screening can be classified into 3 main categories, & depending upon the outcome, the next step is performed. The 3 main categories are→

- Very high risk \rightarrow Full EIA study is required (phase II)
- moderate risk \rightarrow ~~from~~ Preliminary assessment is required
- Very low risk \Rightarrow no further EIA study is required

(3) Preliminary Assessment \rightarrow

- Preliminary assessment is the initial step performed before phase II & is somewhat similar of phase II.
- The preliminary assessment includes
 - ① Background of activity
 - ② Understanding the baseline situation
 - ③ Develop mitigation
 - ④ Results
- If the result of preliminary assessment show ~~high~~ adverse impact, then phase II is conducted, the 2nd of EIA study.

Phase II \rightarrow

- When the impact of activity is ~~as~~ adverse, then we shift to phase II of the assessment.
- In this phase we mainly consider all the steps of preliminary assessment, but with additional steps.

In this way EIA represents a systematic process that examines the environmental consequences of the development in advance.

Q6

map overlay method ->

- The map overlay method involves a set of transparent maps which represent the environmental characteristics.
- The maps will produce a composite map at the top of all the maps. This composite map represent areas with relevant characteristics.
- Information on all the impacts ~~are~~ are given on each layer of the map.
- On the final map (a composite map) many alternatives can be located.
- Related to the type of impact, number of parameters are chosen.
- The total number of parameters are limited to 10.

Characteristics to be taken into consideration ->

- ① Water quality & quantity
- ② Air Quality
- ③ noise
- ④ Deforestation
- ⑤ Soil erosion
- ⑥ Employment opportunities
- ⑦ Displacement of people and animals.



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Dated _____ Class _____ Sec _____

University Roll. No.	Signature of Invigilator
1905398	

Class Roll No. 1921142 Subject _____

Q. No.	1	2	3	4	5	6	7	Total Marks	Sig. of Examiner
Marks									

3



map overlay

composites
displacement of animals
Employment opportunities
soil erosion
Reforestation
noise
Air quality
Water quality & quantity

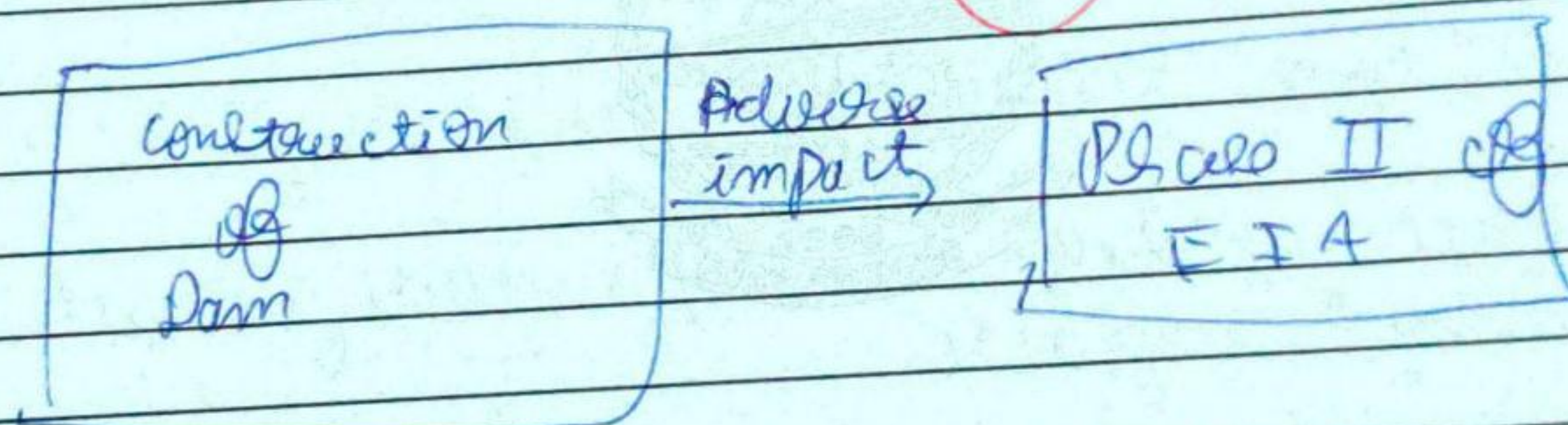
Limitations of the method ->

- Sometimes this method can be complex
- It does not help in differentiating direct & indirect impacts.

Q5. The EIA procedure involves consideration of environmental implications before making a final decision of accepting the environmental attribute.

- This statement can be justified by the help of an example.
- Let's take an example of Dam construction.
- Since the activity in Dam construction is controlling the water flow & irrigation canal.
- By the method of EIA; we can determine all the impacts of this activity before making the final decision.

- The impacts taken into consideration are marine life, displacement of people, ~~decrease~~ decrease in fishing activities & so on.
- At a given time EIA study, it is known that this activity can cause adverse impact on the environment.
- Since due to EIA study, we know in advance the impacts & hence we can propose mitigation for the same activity.
- The above example lies in the phase II of the EIA, & we have different methods available for further study. Ex. check method, map overlay method, CBA method, network method & matrix method.



Environmental Implications

Q2 Scope of EIA →

①