

SH-II/Env.Sc.-201/C-3/PR/19

B.Sc. 2nd Semester (Honours) Practical Examination, 2019

ENVIRONMENTAL SCIENCE

(Water and Water Resources)

Paper : SHENV-201/C-3

Course ID : 21821

Time: 2 Hours

Full Marks: 15

1. Identify the electrical conductivity from the given water sample using conductivity meter and interpret the result. 3+2=5
 2. Estimate dissolved oxygen from a sample water by Winkler method and comment on the water quality. 3+2=5
 3. Practical notebook submission 2
 4. Viva voce 3
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SH-II/Env.Sc.-202/C-4/19

B.Sc. 2nd Semester (Honours) Examination, 2019

ENVIRONMENTAL SCIENCE

(Land & Soil Conservation and Management)

Paper : SHENV-202/C-4

Course ID : 21812

Time: 1 Hr.15 min.

Full Marks: 25

*The figures in the right hand side margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer *any five* questions from the following: 5×1=5
 - (a) Define soil resource.
 - (b) What is meant by soil pH?
 - (c) Name a few toxic organic chemicals present in the soil.
 - (d) Define land degradation.
 - (e) What ecosystem services do soil provide?
 - (f) What do you understand by the term “food security”?
 - (g) How does land salinization takes place?
 - (h) What is meant by soil health?

 2. Answer *any two* questions from the following: 2×5=10
 - (a) Explain different ecological and economic importance of soil.
 - (b) Explain different processes involved in development of a Laterite soil profile.
 - (c) How can a soil get polluted as a result of mining and mineral extraction?
 - (d) What are the visual indicators of soil degradation?

 3. Answer *any one* question from the following: 1×10=10
 - (a) Explain the role of databases and data analysis in landuse planning, control and management with the help of a suitable case study. 4+2+4=10
 - (b) What are the emerging threats of land degradation to developing countries and how can the problem be mitigated? 5+5=10
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SH-II/Env.Sc.-202/C-4/PR/19

B.Sc. 2nd Semester (Honours) Practical Examination, 2019

ENVIRONMENTAL SCIENCE

(Land & Soil Conservation and Management)

Paper : SHENV-202/C-4

Course ID : 21822

Time: 2 Hours

Full Marks: 15

1. With the help of the given soil sample characterise its texture by field method and water holding capacity by wet weight. 1½+1½+2=5
 2. With the help of the given soil sample estimate the pH with the help of the pH meter by usual process of soil extracted water. 3+2=5
 3. Submission of laboratory notebook 2
 4. Viva voce 3
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B.Sc. 2nd Semester (Programme) Examination, 2019**ENVIRONMENTAL SCIENCE****(Environmental Ecology, Human Wildlife Conflict and Management)****Paper : SPENV-201/C-1B****Course ID : 21818****Time: 1 Hour 15 minutes****Full Marks: 25***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words
as far as practicable.**দক্ষিণ প্রান্তস্থ সংখ্যাগুলি প্রশ্নের পূর্ণমানের নির্দেশক।
পরীক্ষার্থীদের যথাসম্ভব নিজের ভাষায় উত্তর দিতে হবে।***1. Answer any five questions:****5×1=5***যে কোনো পাঁচটি প্রশ্নের উত্তর দাও :*

(a) What do you mean by 'in-situ' conservation?

'in-situ' সংরক্ষণ পদ্ধতি বলতে কী বোঝ?

(b) Define hydrosphere.

Hydrosphere কী?

(c) Where is Mayurjharna Elephant reserve located?

ময়ূরঝর্ণা হস্তি সংরক্ষিত এলাকা কোথায় অবস্থিত?

(d) Where was Bhimbetka caves discovered?

ভীমবেটকা গুহাগুলি কোথায় আবিষ্কৃত হয়?

(e) In which state 'silent valley movement' was held?

'silent valley' আন্দোলন কোন রাজ্যে সংগঠিত হয়েছিল?

(f) Write down the full form of IBWL.

IBWL-এর পুরো নাম লেখ।

(g) What do you mean by Wildlife Sanctuary?

অভয়ারণ্য কাকে বলে?

(h) What do you mean by Vulnerable species?

Vulnerable প্রজাতি কাকে বলে?

2. Answer any two questions:

2×5=10

যে কোনো দুটি প্রশ্নের উত্তর দাও :

(a) Write a short note on wildlife protection act, 1972.

টীকা লেখ : Wildlife protection act, 1972

(b) Discuss briefly the rights of Indian tribals in relation to the utilisation of forest resources.

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ভারতীয় আদিবাসীদের অরণ্য সম্পদ ব্যবহারের অধিকার সম্পর্কে সংক্ষেপে আলোচনা কর।

৫

(c) Mention the roles of Wildlife corridors in minimising human wildlife conflict.

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মানুষ এবং বন্যপ্রাণীর সংঘাতকে প্রশমিত করার লক্ষ্যে বন্যপ্রাণী corridors-এর ভূমিকা উল্লেখ কর।

৫

(d) What do you mean by habitat fragmentation? How does it occur? How does a fragmented habitat differ from original habitat?

1+2+2=5

বাসস্থান বিচ্ছিন্নকরণ বলতে কী বোঝ? বিচ্ছিন্নকরণ কীভাবে ঘটে? বিচ্ছিন্ন বাসস্থান ও প্রকৃত বাসস্থানের মধ্যে পার্থক্য লেখো।

১+২+২=৫

3. Answer any one question:

1×10=10

যে কোনো একটি প্রশ্নের উত্তর দাও :

(a) State the reasons behind fishermen-tiger conflict of Sunderban. How does this conflict may be mitigated?

6+4=10

সুন্দরবন এলাকায় মৎস্যজীবী ও বাঘের সংঘাতের মূল কারণগুলি উল্লেখ করো। এই সংঘাতকে কীভাবে প্রশমিত করা যেতে পারে।

৬+৪=১০

(b) What do you mean by forest conservation? Discuss the role of Bishnoi Community in forest conservation.

2+8=10

অরণ্য সংরক্ষণ কাকে বলে? অরণ্য সংরক্ষণে Bishnoi-দের ভূমিকা উল্লেখ কর।

২+৮=১০

B.Sc. 2nd Semester (Programme) Practical Examination, 2019

ENVIRONMENTAL SCIENCE

(Environmental Ecology)

Paper : SPENV-201/C-1B (Practical)

Course ID : 21828

Time: 2 Hours

Full Marks: 15

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.*

1. Identity the given aquatic microfauna (A–C) with reasons, (scientific name = $\frac{1}{2}$, systematic position = $\frac{1}{2}$, reasons = $\frac{1}{2}$) 1½×3=4½
 2. Identity the given aquatic flora (a–c) with reasons. [scientific name = $\frac{1}{2}$, systematic position = $\frac{1}{2}$, Reasons = $\frac{1}{2}$] 1½×3=4½
 3. Submission of laboratory notebook/report 3
 4. Viva voce 3
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SP-II/Env.Sc.-201/C-1B(PRI)/19

B.Sc. 2nd Semester (Programme) Practical Examination, 2019

ENVIRONMENTAL SCIENCE

(Environmental Ecology)

Paper : SPENV-201/C-1B

Course ID : 21828

Instructions to the Examiners.

1. For question No.1, three specimens to be provided from serial 1(A) of the syllabus.
 2. For question No.2, three specimens to be given from serial 1(B) of the syllabus.
 3. For questions 1 and 2, a key to the identification of specimens to be prepared and duly signed by the examiners for each batch should be enclosed along with evaluated answer scripts.
 4. Submission of laboratory notebook or report.
 5. For Viva voce, the examinee must be evaluated on the basic of his/her expertise/subject knowledge.
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SH-II/Env.Sc.-201/C-3/19

B.Sc. 2nd Semester (Honours) Examination, 2019

ENVIRONMENTAL SCIENCE

(Water and Water Resources)

Paper : SHENV-201/C-3

Course ID : 21811

Time: 1 Hr.15 min.

Full Marks: 25

*The figures in the right hand side margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer *any five* questions from the following: 5×1=5
- (a) What is sheet flow?
 - (b) What is aquifer?
 - (c) Define micro-watershed.
 - (d) What is benthos?
 - (e) What is pH scale?
 - (f) Mention the name of two important multipurpose river valley projects in Eastern India.
 - (g) What is eutrophication?
 - (h) What is river regime?
2. Answer *any two* questions from the following: 2×5=10
- (a) Explain two components of basin hydrological phenomena.
 - (b) “Drainage basin is a hydrological unit”— briefly explain.
 - (c) What are the major reasons for destruction of wetland in riverine flood plain?
 - (d) Critically identify the major threats to national river linking plan.
3. Answer *any one* question from the following: 1×10=10
- (a) Briefly explain the role of watershed management for improving rural livelihood pattern.
 - (b) Identify ecological and economic impacts related with major dams in India.
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