# Assignment Booklet

## BSCAEY Programme
### B.Sc (Applied Sciences - Energy)

| First Semester | |
| --- | --- |
| BEY-001 | Thermal Science |
| BEY-019 | Real Analysis and Discrete Mathematics |
| BEY-012 | Electrical and Electronic Sciences |
| BEVAE-181 | Environmental Studies (4) |
| BHDAE-182 | Hindi Bhasha aur Sampreshan (4) |
| BEGAE-182 | English communication skill(4) |
| BEYE-022 | **Sanskrit** Bhasha aur Sampreshan (4) |

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UNIVERSITY

## SCHOOL OF ENGINEERING & TECHNOLOGY
## INDIRA GANDHI NATIONAL OPEN UNIVERSITY
Maidan Garhi, New Delhi – 110 068

## JANUARY 2024

Dear Student,

Please read the information on assignments in the Programme Guide that we have sent you after your enrolment. A weightage of 30%, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this Programme. The assignment for BSCAEY (first semester) has been given in this booklet.

## Instructions for Formatting Your Assignments

Before attempting the assignment, please read the following instructions carefully:

1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ENROLLMENT NO :………………………………………………

NAME :………………………………………………

ADDRESS :………………………………………………

………………………………………………

………………………………………………

PROGRAMME CODE: ………………………..

COURSE CODE: ………………………………….

COURSE TITLE: ………………………………

STUDY CENTRE: ……………………..…….        DATE:  ……………..……………..

## PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.

3)  Leave 4 cm margin on the left, top and bottom of your answer sheet.

4) Your answers should be precise.

5) **These assignments submitted should be hand written in your own hand writing.**

### We strongly suggest that you should retain a copy of your answer sheets.

6) **You cannot fill the Exam Form without** submission of the assignments. So solve it and **submit it at the earliest.** If you wish to appear in the **TEE, June 2024,** you should submit your TMAs by **April 30, 2024.** Similarly, if you wish to appear in the **TEE, December 2024,** you should submit your TMAs by **September 30, 2024.**

7) Assignments will be submitted at **your respective regional centre.**

We wish you good luck!

Note:

1.   **For any question worth 5 marks the word limit is 200 words, for a 10 mark question it is 350 words.**

2.   **All questions are compulsory. All questions carry equal marks.**

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Q.1   Discuss about the three in detail: Work, Heat and Thermal cycle.                          10

Q.2   Describe Boyles and Charles law and further derive the equation of state.                 10

Q.3   Discuss fire and water tube boilers and bring forth the differences between them.         10

Q.4   Describe a velocity compounded impulse turbine with a neat sketch.                        10

Q.5   Enlist and explain the two primary classification of a condenser to be used in a          10
      power plant. Also, discuss steam surface condenser configuration.

Q.6   Derive the expression for efficiency in an Otto cycle.                                    10

Q.7   Differentiate, in detail between a four stroke and a two-stroke IC engine.                10

Q.8   Describe the combustor of a gas turbine with a neat sketch.                               10

Q.9   Discuss some applications of the refrigeration and air-conditioning systems.             10

Q.10  Describe the simple vapour compression refrigeration cycle in detail.                     10

Course Code: BEY-019
Course Title: Real Analysis and Discrete Mathematics
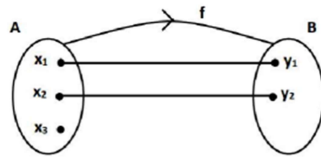Assignment Code: BEY-019/TMA/2024
Maximum Marks: 100

**Last Date of Submission: May 31, 2024(For June TEE), September 30, 2024 (For December TEE)**
Note:

1.    **For any question worth 5 marks the word limit is 200 words, for a 10 mark question it is 350 words.**

2.    **All questions are compulsory. All questions carry equal marks.**

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Q.1    State whether the following statement are True or False and also give the reason in support of your answer.

a)    Collection of intelligent students of IGNOU forms a set.    2

b)    Following rule is a function from A to B    2



c)    $\dfrac{d}{dx}(9-7x)^5 = 45(9-7x)^4$    2

d)    The negation of the following statement p is ¬p.    2
p: Longest chord of a circle is diameter
¬p: Diameter is the shortest chord of circle

e)    Any term of an AP(except the first and last) is equal to half the sum of terms which are equidistant from it on both sides    2

Q.2    If the universal set is U = {1,2,3,4,5,6,7,9,10} and A = {2,3,6,7}, B= {4,6,8,9}, C= {6,7,8} are the subsets of U, then verify

a)    De-Morgan's Laws    5
b)    Left distributive law    5

Q.3    Evaluate the following:

a)    $\int x^2 e^{2x} dx$    5

b)    $\dfrac{dy}{dx}, where\ y=(4x+5)^4(9x+4)^5$    5

Q.4    a)    If x,y,z be respectively the p$^{th}$, q$^{th}$ and r$^{th}$ term of G.P., then evaluate    5
(q-r) logx + (r-p) logy + (p-q) logz

b)    The numbers a,b and c are between 2 and 18, such that, (i) their sum is 25, (ii) the number 2, a and b are consecutive terms of an A.P. and (iii) the number b,c and 18 are consecutive terms of a G.P. Find the values of a,b,c.    5

Q.5    a)    For the statement p and q, consider the following compound statements:    5
A.    {¬q ∧ (p→q)} → ¬p

B.  $\{(p \vee q) \wedge \neg p\} \to q$

Then which of the following statement is correct:

    (i)     A is a tautology but not B

    (ii)    A and B both are not tautologies

    (iii)    A and B both are tautologies

    (iv)    B is a tautology but not A

b)    Which of the following Boolean expression is a tautology?      5

    (i)     $(p \wedge q) \vee (p \vee q)$

    (ii)    $(p \wedge q) \vee (p \to q)$

    (iii)    $(p \wedge q) \wedge (p \to q)$

    (iv)    $(p \wedge q) \to (p \to q)$

Q.6    Solve the following discrete difference equations:

a)    $Y_{t+2} + 12y_{t+1} + 30y_t = 2 + 3t^2$      5

b)    $Y_{t+2} + 15y_{t+1} + 5y_t = 1 + 6t + 13t^2$      5

Q.7    a)      5

Evaluate $\lim\limits_{x \to \frac{\pi}{6}} \dfrac{\sqrt{3}\sin x - \cos x}{x - \dfrac{\pi}{6}}$

b)      5

Evaluate $\lim\limits_{x \to 0} \dfrac{\sqrt{1+x^3} - \sqrt{1-x^3}}{x^2}$

Q.8    Differentiate the following functions:

a)    $y = \sin^3 x \, \cos^3 x$      5

b)    $y = \dfrac{1}{ax^2 + bx + c}$      5

Q.9    Evaluate the following:

a)    $\displaystyle\int \dfrac{\sqrt{x}}{\sqrt{x}+2} dx$      5

b)    $\displaystyle\int \dfrac{\tan(\log x)}{x} dx$      5

      5

Q.10    Show that      5

a)    $\displaystyle\int_0^{\frac{\pi}{2}} \dfrac{\cos x}{1 + \cos x + \sin x} dx = \dfrac{\pi}{4} - \dfrac{1}{2}\log 2$

b)    Evaluate $\displaystyle\int_{\frac{\pi}{6}}^{\frac{\pi}{3}} \dfrac{1}{1 + \tan x} dx$

Note:

1.    For any question worth 5 marks the word limit is 200 words, for a 10 mark question it is 350 words.

2.    All questions are compulsory. All questions carry equal marks.

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Q.1   a)   Explain terms Current, Voltage, Power, Energy and Efficiency.          5

      b)   In an electrical system what is the importance of active power and reactive power?          5

Q.2   a)   Explain Kirchhoff's Current Law (KCL) and Kirchhoff's Voltage Law (KVL).          5

      b)   Find the magnitude of emf induced in a 100 turns coil with cross-sectional area of 0.16 m2, if the magnetic field through the coil changes from 0.10 Wbm−2 to 0.70 Wbm−2 at a uniform rate over a period of 0.02 second.          5

Q.3   An inductive coil of resistance 32Ω and reactance 15.7Ω is connected in series with a capacitor of reactance 79.5Ω. The circuit is connected across 500 V AC supply, determine          10
      (a)   Current,
      (b)   Phase difference between voltage and current,
      (c)   Magnitude of voltage across the inductive coil, and
      (d)   Total power absorbed.

Q.4   Explain working principle, construction details and EMF equation of Transformer.          10

Q.5   a)   Describe torque-slip curve of three-phase induction motor.          5

      b)   What are the differences between a synchronous motor and an induction motor?          5

Q.6   a)   Explain and draw v – i relation of a diode.          5

      b)   Explain Transistor action with neat diagram.          5

Q.7   Describe characteristics of Transistor in CB and CE Configuration.          10

Q.8   Explain the characteristics of SCR and Traic.          10

Q.9   Explain the functions of the following:          10
      (a)   D flip flop
      (b)   T flip flop
      (c)   JK motor
      (d)   Clocked SR flip flop
      (e)   Full subtractor
      (f)   Full order

Q.10 a)   Describe functional elements of a generalised measuring system          5

b)   What is Transducer? Give classification of transducers.                        5

**Note:**

1.    **For any question worth 5-7 marks the word limit is 200 words, for a 8 mark question it is 300 words.**

2.    **All questions are compulsory. All questions carry equal marks.**

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Q.1    Why ecological significance of forest is more important in present day context? Explain.    8

Q.2    a)    Explain the characteristics of Western Ghats for inclusion as Biodiversity hotspots.    4

b)    Why hydropower is regarded as the best source of energy? Explain it in detail.    4

c)    The importance of Biomass has been increasing day by day in our surroundings among renewable resources. Explain it with suitable examples.    4

d)    How does air pollution affect the atmospheric processes?    4

e)    What is Disposal of waste? Why segregation of waste is needed?    4

Q.3    "As humans civilization progressed, man started altering the environment in the pursuit of creating an economic, social and cultural environment of his own choice. This slowly resulted in the depletion of natural resources and degradation of environment." Explain it in context of national legislations of water acts?    7

Q.4    Explain the human-environment relationship by taking examples of biotic and abiotic components?    7

Q.5    "Biosphere reserves are internationally recognized areas established to promote and demonstrate a balanced relationship between Humans and the Biosphere." Elaborate this statement in the context of conservation of nature?    8

Q.6    Explain the following terms in about 60 words each:

a)    Seed Bank    2

b)    Incineration    2

c)    Biological Oxygen Demand    2

d)    Public Health    2

Q.7    a)    What is lentic and lotic ecosystem? Explain these two with suitable examples.    5

b)    What is ecological succession? Explain the types of succession with suitable diagrams.    5

c)    Explain the biocentrism and ecocentrism in context of human's attitude towards nature?    5

d)    Define natural calamities and its types with suitable examples.    5

Q.8 Explain the causes of ozone depletion? How do ultraviolet rays affects human health, animals, plants, micro-organisms, water and air quality. 7

Q.9 "Education for environmental awareness is essential for the younger generation as well as for the older generation." Explain the statement with suitable examples. 7

Q.10 "Water Harvesting is one of the effective measures to combat drought." Explain this statement with suitable arguments. 8

Note:

1.   **For any question worth 5 marks the word limit is 200 words, for a 10 mark question it is 300 words.**

2.   **All questions are compulsory. All questions carry equal marks.**

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Q.1   What do you understand by the term 'non-verbal communication'? What are its advantages?   10

Q.2   Write a short note on Macro functions of communication   10

Q.3   How do you differentiate between Group Discussions at Interviews and Group Discussions in General?   10

Q.4   What are "homonyms" and "homophones"? Explain with suitable examples.   10

Q.5   What are some of the meeting etiquettes which one must follow while attending a meeting? Also suggest ways to end a meeting   10

Q.6   A construction company is planning to cut down several trees in your locality to build 10 new flats. As the President of your Residential Association write a formal letter to the editor of your local newspaper highlighting this issue.   10

Q.7   You are attending an international Conference in your city. You have just met a 10 participant from the U.S.A. Write a dialogue in 10 turns where both of you get introduced to each other and discuss your expectations from the conference.   10

Q.8   Write an essay on Barriers to communication.   10

Q.9   A group of five students have been given the topic "Environment Pollution and ways to curb it" for group discussion. Attempt a group discussion for a set of three students.   10

Q.10   You have been invited to speak in a webinar for high school students on the topic: 10 "Contribution of Youth in Nation building" Write your speech in around 300 words.   10

# ASSIGNMENT

## (For July, 2023 and January, 2024 Sessions)

# BEGAE 182: English Communication Skills

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**School of Humanities**
**Indira Gandhi National Open University**
**Maidan Garhi, New Delhi – 110 068**

# BEGAE - 182
## English Communication Skills (BEGAE - 182)

Course Code: BEGAE-182/2023-24

Dear Student

You are required to do one assignment for the Course titled English Communication Skills Code BEGAE-182, which will be a Tutor Marked Assignment (TMA) and will carry 100 marks. It will be based on blocks 1 to 4.

**Aims:** This assignment is concerned mainly with assessing your application and your understanding of the course material. You are not to reproduce chunks of information from the course material but to use the skills of critical appreciation that you may have acquired during the course of study. This assignment aims to teach as well as to assess your performance.

**Instructions:** Before attempting the questions please read the following instructions carefully.

As in day-to-day life, planning is important in attempting the assignment as well. Read the assignment carefully; go through the units on which the questions are based; jot down some points regarding each question and then re-arrange them in a logical order. In the essay-type answer, pay attention to your introduction and conclusion. The introduction must tell you how to interpret the given topic and how you propose to develop it. The conclusion must summarize your views on the topic. Once you are satisfied with your answers, you can write down the final version for submission, writing each answer neatly and underlining the points you wish to emphasize. **You should submit the assignment in your own handwriting.**

Make sure that your answer:
a) is logical
b) is written in simple and correct English
c) does not exceed the number of words indicated in your questions
d) is written neatly and clearly.

**Please remember that it is compulsory to submit your assignment before you can take the Term End Examination. Also remember to keep a copy of your assignment with you and to take a receipt from your Study Centre when you submit the assignment.**

1.  Write your Enrolment Number, Name, Full Address and Date on the top right corner of the first page of your response sheet(s).

2.  Write the Course Title, Assignment Number and the Name of the Study Centre you are attached to in the centre of the first page of your response sheet(s).

The top of the first page of your response sheet should look like this:

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<div align="right">

ENROLMENT NO: ………………………
NAME: …………………………………..
ADDRESS: …………………………………

…………………………………………….

</div>

COURSE TITLE: ………………………….
ASSIGNMENT NO: ……………………..
STUDY CENTRE: ……………………….. DATE:…………………………………….

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4.    Use only foolscap size paper for your response and tag all the pages carefully.

5.    Write the relevant question number with each answer.

**Last Date for Submission of Assignment:**

**For June Examination:**          **31$^{st}$ March**
**For December Examination:**          **30$^{th}$ September**

**Good Luck!**

## BEGAE-182: English Communication Skills
## Assignment July, 2023 & January, 2024 Sessions
## (Based on Blocks 1 - 4)

**Max. Marks: 100**

**Answer all questions.**

1. What do you understand by the term 'non-verbal communication'? What are its advantages? 10

2. Write a short note on Macro functions of communication. 10

3. How do you differentiate between Group Discussions at Interviews and Group Discussions in General? 10

4. What are "homonyms" and "homophones"? Explain with suitable examples. 10

5. What are some of the meeting etiquettes which one must follow while attending a meeting? Also suggest ways to end a meeting. 10

6. A construction company is planning to cut down several trees in your locality to build new flats. As the President of your Residential Association write a formal letter to the editor of your local newspaper highlighting this issue. 10

7. You are attending an international Conference in your city. You have just met a participant from the U.S.A. Write a dialogue in 10 turns where both of you get introduced to each other and discuss your expectations from the conference. 10

8. Write an essay on Barriers to communication. 10

9. A group of five students have been given the topic "Environment Pollution and ways to curb it" for group discussion. Attempt a group discussion for a set of three students. 10

10. You have been invited to speak in a webinar for high school students on the topic: "Contribution of Youth in Nation building"
Write your speech in around 300 words. 10

# BHDAE- 182 (सी.बी.सी.एस.)
**Ability Enhancement Compulsory Course- 1**

# सत्रीय कार्य
## (केवल जनवरी, 2024 सत्र हेतु)

### पाठ्यक्रम कोड : बी.एच.डी.ए.ई–182
### हिंदी भाषा और संप्रेषण

मानविकी विद्यापीठ
**इंदिरा गांधी राष्ट्रीय मुक्त विश्वविद्यालय**
मैदान गढ़ी, नई दिल्ली–110068

# हिन्दी में आधार पाठ्यक्रम–02
## सत्रीय कार्य

पाठ्यक्रम कोड : / बी.एच.डी.ए.ई–182

प्रिय छात्र/छात्राओ!

हिंदी भाषा और संप्रेषण से संबंधित व्यवहार मूलक पाठ्यक्रम में आपको एक सत्रीय कार्य करना है। यह सत्रीय कार्य शिक्षक जाँच सत्रीय कार्य (टी.एम.ए.) है। सत्रीय कार्य के लिए 100 अंक निर्धारित किये गये हैं।

**उद्देश्य :** सत्रीय कार्य का मुख्य उद्देश्य यह जाँचना है कि आपने पाठ्य सामग्री को कितना समझा है और आप स्वयं उसे अपने शब्दों में कैसे प्रस्तुत कर सकते हैं। उद्देश्य यह भी है कि अध्ययन के दौरान जो कुछ आपने सीखा और समझा है उसे आलोचनात्मक ढंग से प्रस्तुत कर सकें। इस पाठ्यक्रम में आपको हिंदी भाषा और संप्रेषण का व्यवहारिक ज्ञान कराया गया है। सत्रीय कार्य में हमने अधिकांश प्रश्न ऐसे दिए हैं, जिनसे फीचर लेखन से संबद्ध आपकी कुशलता की जाँच हो सके। इससे आपको फीचर लेखन में अपनी क्षमता का विकास करने में मदद मिलेगी तथा जाँचे हुए सत्रीय कार्यों से आप अपनी त्रुटियों और कमजोरियों को पहचान सकेंगे और उन्हें दूर कर सत्रांत परीक्षा में बेहतर परिणाम पा सकेंगे।

**निर्देश :** सत्रीय कार्य आरंभ करने से पूर्व निम्नलिखित बातों को ध्यान से पढ़िए :

1. ऐच्छिक पाठ्यक्रम के लिए कार्यक्रम दर्शिका में दिए गए विस्तृत निर्देशों का सावधानीपूर्वक अध्ययन कीजिए।

2. अपनी उत्तर पुस्तिकाओं के पहले पृष्ठ के दाएँ सिरे पर अनुक्रमांक, नाम, पूरा पता और दिनांक लिखिए।

3. अपनी उत्तर पुस्तिकाओं के प्रथम पृष्ठ के मध्य भाग में पाठ्यक्रम का शीर्षक, सत्रीय कार्य संख्या और अपने अध्ययन केन्द्र का उल्लेख कीजिए।

4. उत्तर पुस्तिका का प्रथम पृष्ठ निम्न प्रकार से शुरू होगा :

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अनुक्रमांक : ...................................................

नाम : ...................................................

पता : ...................................................

...................................................

...................................................

पाठ्यक्रम का नाम/कोड : ...................................................

सत्रीय कार्य कोड : ...................................................

अध्ययन केन्द्र का नाम/कोड : ...................................    दिनांक : ...................................................

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5. उत्तर के लिए केवल फुलस्केप के आकार के कागज़ का इस्तेमाल करें और उन कागज़ों को अच्छी तरह से बाँध लें।

6. प्रत्येक उत्तर के पहले प्रश्न संख्या अवश्य लिखें और अपनी ही लिखावट में उत्तर दें।

7. सत्रीय कार्य पूरा करके जाँच के लिए अपने अध्ययन केन्द्र के संयोजक (Coordinator) के पास निर्धारित तिथि तक अवश्य जमा करा दें।

सत्रीय कार्य जमा करने की अंतिम तिथि :

जनवरी 2024 सत्र के लिए : **31 अक्टूबर, 2024**


# सत्रीय कार्य के लिए आवश्यक निर्देश

सत्रीय कार्य में आपसे मुख्य रूप से दो तरह के प्रश्न पूछे गए हैं। हिंदी भाषा और संप्रेषण से संबंधित प्रश्न।

उत्तर देने के लिए आप निम्नलिखित विधि से तैयारी करेंगे तो आपके लिए लाभप्रद होगा :

1. **अध्ययन** : सबसे पहले सत्रीय कार्य को ध्यान से पढ़िए। फिर इससे संबंधित इकाइयों का अध्ययन कीजिए। अंत में प्रत्येक प्रश्न के संबंध में सभी खास बातें नोट कर लीजिए और उन्हें तार्किक ढंग से पुनर्व्यवस्थित कीजिए।

2. **अभ्यास** : अपने उत्तर का प्रारूप लिखने से पूर्व नोट की गई बातों पर विचार कीजिए। निबंधात्मक या टिप्पणीपरक प्रश्नों में आरंभ और उपसंहार का विशेष ध्यान दीजिए। उत्तर के आरंभिक अंश में प्रश्न की संक्षिप्त व्याख्या और अपने उत्तर की दिशा का संकेत अवश्य दे देना चाहिए। मध्य भाग में आप उत्तर का मुख्य भाग आवश्यक विस्तार के साथ क्रमबद्ध और तार्किक ढंग से प्रस्तुत करें। उपसंहार में उत्तर का सार देना चाहिए। व्यवहारिक लेखन से संबंधित प्रश्नों को करने के लिए इकाइयों को पढ़ने के साथ-साथ पत्र-पत्रिकाओं में छपने वाले फीचर लेखों का अध्ययन करें। इनसे आपको सत्रीय कार्य करने में मदद मिलेगी।

   ## यह सुनिश्चित कर लीजिए कि :

   क) आपका उत्तर तार्किक और सुसंगत हो,
   ख) वाक्यों और अनुच्छेदों (Paragraphs) के बीच स्पष्ट क्रमबद्धता हो,
   ग) उत्तर सही ढंग से लिखा गया हो तथा जो आपकी अभिव्यक्ति, शैली और प्रस्तुति के पूर्णतया अनुकूल हो।
   घ) उत्तर प्रश्न में निर्धारित शब्दों से अधिक लंबा न हो, और
   ङ) आपके लेखन में भाषागत त्रुटियाँ न हों, विशेष रूप से मात्रा और व्याकरण संबंधी गलतियों से बचें।

1. **प्रस्तुति** : जब आप अपने उत्तर से पूर्णतया संतुष्ट हो जाएँ तो उसको साफ और सुंदर अक्षरों में उत्तर पुस्तिका में लिख लीजिए तथा जिन बातों पर आप ज़ोर देना चाहते हैं उन्हें रेखांकित कर दीजिए।

2. **विशेष** : अपने उत्तर की फ़ोटो प्रति/कार्बन प्रति अपने पास अवश्य रखें।

शुभकामनाओं सहित!


नोट : याद रखें कि विश्वविद्यालय के नए नियमानुसार परीक्षा में बैठने से पूर्व सत्रीय कार्य जमा कराना अनिवार्य है अन्यथा आपको परीक्षा में बैठने की अनुमति नहीं दी जाएगी।

# सत्रीय कार्य
## (संपूर्ण पाठ्यक्रम पर आधारित)

नोट : सभी प्रश्नों के उत्तर दीजिए।

## खंड – क

**निम्नलिखित प्रश्नों के उत्तर लगभग 800 शब्दों में दीजिए :**                     20× 2=40

1. भाषा के स्वरूप और प्रकृति पर प्रकाश डालिए।

     **अथवा**

   वर्ण–विचार क्या है? इसे स्पष्ट करते हुए वर्ण लिखने की रीति पर प्रकाश डालिए।

2. व्यंजन का अभिप्राय स्पष्ट करते हुए उच्चारण स्थान के आधार पर व्यंजन के भेदों का परिचय दीजिए।

     **अथवा**

   स्वर वर्णों की विशेषताएँ बताते हुए व्यंजन वर्णों से तुलना कीजिए।

## खंड –ख

**निम्नलिखित प्रश्नों के उत्तर लगभग 400 शब्दों में दीजिए :**                     10×4=40

3. भाषा के विविध रूपों से आप क्या समझते/समझती हैं? सोदाहरण उत्तर देते हुए प्रयोग के आधार पर भाषा के विभिन्न रूपों का परिचय दीजिए।

4. शब्दों में अ–लोप की स्थिति को सोदाहरण समझाइए।

5. 'कारक एवं विभक्ति' पर प्रकाश डालते हुए इनका अंतर स्पष्ट कीजिए।

6. अव्यय (अविकारी शब्द) और उसके प्रकारों पर प्रकाश डालिए।

## खंड –ग

**निम्नलिखित प्रश्नों के उत्तर लगभग 200 शब्दों में दीजिए :**                     5×4=20

7. पदक्रम से आप क्या समझती/समझते हैं?

8. संप्रेषण की प्रक्रिया पर प्रकाश डालिए।

9. रचना के आधार पर वाक्य के प्रकार स्पष्ट कीजिए।

10. मूल स्वर का संक्षिप्त परिचय दीजिए।

# Bachelor in Commerce

## B.Com

## CHOICE BASED CREDIT SYSTEM

## BEVAE-181: AECC ON ENVIRONMENTAL STUDIES

### ASSIGNMENT

### 2023-24

### [Valid from 1st July, 2023 to 30th June, 2024]

### First Semester



**School of Management Studies**

**Indira Gandhi National Open University**

**Maidan Garhi, New Delhi -110068**

**BACHELOR IN COMMERCE**
**CHOICE BASED CREDIT SYSTEM**
**BEVAE-181: AECC ON ENVIRONMENTAL STUDIES**
**ASSIGNMENT: 2023-24**

Dear Students,

Assignment is given 30% weightage in the final assessment. To be eligible to appear in the Term-end examination, it is compulsory for you to submit the assignment as per the schedule. Before attempting the assignments, you should carefully read the instructions given in the Programme Guide.

1. Those students who are appearing in December 2023 exams. They should download the new assignment and submit the same latest by 15 October 2023.
2. Those students who are appearing in June 2024 Term End Examination they have to submit latest by in 15 March 2024.

You have to submit the assignment of all the courses to the Coordinator of your Study Centre.

| | | |
|---|---|---|
| **Course Code** | : | **BEVAE-181** |
| **Course Title** | : | **AECC ON ENVIRONMENTAL STUDIES** |
| **Assignment Code** | : | **BEVAE-181/TMA/2023-24** |
| **Coverage** | : | **All Blocks** |

**Maximum Marks: 100**

**Attempt all the questions.**

# SECTION A

**1.** Why ecological significance of forest is more important in present day context? Explain. **(8)**

**2.** Answer the following questions in about 125 words each. **(4×5=20)**
   a) Explain the characteristics of Western Ghats for inclusion as Biodiversity hotspots.
   b) Why hydropower is regarded as the best source of energy? Explain it in detail.
   c) The importance of Biomass has been increasing day by day in our surroundings among renewable resources. Explain it with suitable examples.
   d) How does air pollution affect the atmospheric processes?
   e) What is Disposal of waste? Why segregation of waste is needed?

**3.** Explain the human-environment relationship by taking examples of biotic and abiotic components? **(7)**

**4.** "As humans civilisation progressed, man started altering the environment in the pursuit of creating an economic, social and cultural environment of his own choice. This slowly resulted in the depletion of natural resources and degradation of environment." Explain it in context of national legislations of water acts? **(7)**

**5.** "Biosphere reserves are internationally recognised areas established to promote and demonstrate a balanced relationship between Humans and the Biosphere." Elaborate this statement in the context of conservation of nature? **(8)**

# SECTION B
## Answer the following questions in about 150 words each.

**1.** Explain the following terms in about 60 words each: **(2×4=8)**
   (a) Seed Bank
   (b) Incineration
   (c) Biological Oxygen Demand
   (d) Public Health

**2.** Answer the following questions in about 150 words each. **(4×5=20)**
   a) What is lentic and lotic ecosystem? Explain these two with suitable examples.

b) What is ecological succession? Explain the types of succession with suitable diagrams.

c) Explain the biocentrism and ecocentrism in context of human's attitude towards nature?

d) Define natural calamities and its types with suitable examples.

3. Explain the causes of ozone depletion? How do ultraviolet rays affects human health, animals, plants, micro-organisms, water and air quality. **(7)**

4. "Education for environmental awareness is essential for the younger generation as well as for the older generation." Explain the statement with suitable examples. **(7)**

5. "Water Harvesting is one of the effective measures to combat drought." Explain this statement with suitable arguments. **(8)**