



## Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category A by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with A+ Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

Bachelor of Education Degree Examination - June 2021

IV Semester

Class: II B.Ed.

Time : 3 Hours

Max. Marks : 100

18BEDB14 School Subject I: Professionalising Biological Science Education

### Course Outcomes:

- CO1: Describe the importance of pedagogical content analysis
- CO2: Compare and interpret the content of different boards of education
- CO3: Analyse and evaluate text books
- CO4: Design and develop e-content material
- CO5: Conduct an action research
- CO6: Organise science exhibitions and science fairs

### Part A

10 x 1 = 10

Choose the Correct Answer

1. Pedagogy is a Greek word which literally means CO1 K1
  - a. to understand the child
  - b. to guide the child
  - c. to educate the child
  - d. to lead the child
2. Pedagogical Content knowledge is otherwise known as CO1 K1
  - a. craft knowledge
  - b. diverse knowledge
  - c. cumulated wisdom
  - d. concept analysis
3. The rejection of text book is because of CO3 K5
  - a. resource of teacher
  - b. outdated subject area
  - c. teaching procedure
  - d. chronological presentation of knowledge
4. The text book provides insight to the teacher in CO3 K4
  - a. saving time
  - b. getting due recognition
  - c. planning lesson
  - d. appreciating concept
5. HTML indicates CO4 K1
  - a. Hyper Text Market Language
  - b. Hyper Text Markup Language
  - c. Hyper Text Makeup Language
  - d. Hyper Text Mail Language
6. The e-content development for undergraduate courses has been assigned by the Ministry of Human Resource Development to CO4 K1
  - a. INFLIBNET
  - b. Consortium for Educational Communication
  - c. National knowledge Commission
  - d. Indira Gandhi national Open University
7. Which of the following is the first step in doing research? CO5 K1
  - a. developing a research design
  - b. formulating a research question
  - c. deciding about the data analysis procedure
  - d. formulating a research hypothesis
8. Action research can be understood as CO5 K2
  - a. a longitudinal research
  - b. an applied research
  - c. a kind of research being carried out to solve a specific problem
  - d. all of the above

9. The co-curricular activity which influence curricular activity in science is C06 K1  
 a. dance b. role-play  
 c. music event d. field trip
10. Co-curricular activity can help the students \_\_\_\_\_ growth. C06 K2  
 a. holistic b. mental  
 c. physical d. emotional

**Part B** **5 x 6 = 30**

**Answer ALL questions**

**Each answer should not exceed 400 words or two pages**

- 11.a. Point out the merits and demerits of high school text book. C01 K3  
 (or)
- 11.b. Describe the steps involved in the pedagogical analysis of biology content in high school textbook. C02 K2
- 12.a. Enumerate the characteristics of a good text book. C03 K2  
 (or)
- 12.b. Examine the need and importance of a text book. C03 K2
- 13.a. Elucidate the phases involved in e content development. C04 K2  
 (or)
- 13.b. Elaborate the process of script writing in developing an e content. C04 K3
- 14.a. List out the advantages of action research. C05 K3  
 (or)
- 14.b. Distinguish the variables involved in a research. C05 K2
- 15.a. Illustrate nature rambling and nature calendar. C06 K2  
 (or)
- 15.b. Compare field trip and study tour as co-curricular activities in science. C06 K2

**Part C** **5 x 12 = 60**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

- 16.a. Discuss the conceptual overview of Biology content portion in 9<sup>th</sup> standard text book of Tamilnadu. C02 K4  
 (or)
- 16.b. Analyze the biology content in the high school text book of Tamilnadu in the application aspect. C02 K4
- 17.a. Explain the various criteria in the evaluation of a text book. C03 K5  
 (or)
- 17.b. Categorize the text book and justify the utility of text books. C03 K5
- 18.a. Substantiate the need and importance of e-contents in the present context of teaching and learning. C04 K5  
 (or)
- 18.b. Draft a model e-content module for any topic in biology at high school level. C04 K6
- 19.a. Explain the types of research with suitable illustrations. C05 K2  
 (or)
- 19.b. Elaborate the procedure to conduct action research with necessary steps involved in it. C05 K2
- 20.a. Examine the organisation and activities of science club in schools. C06 K3  
 (or)
- 20.b. Explain the various steps involved in conducting a successful science exhibition in school. C06 K2