Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor of Education / B.Ed. Special Education (VI/HI) Degree Examination – May 2023
IV Semester

Class: II B.Ed. / II B.Ed. Special Education (VI/ HI)

Time : 3 Hours
Max. Marks : 100

21BEDB14 / 21BDSB14 School Subject I: Professionalising Biological Science Education

Course Outcomes:

CO1: Describe the importance of pedagogical content analysis and interpret the content of different boards of education
CO2: Analyze and evaluate textbooks
CO3: Design and develop e-content material
CO4: Conduct action research
CO5: Organise science exhibitions and science fairs

Part A **10 x 1 = 10**
Choose the Correct Answer

1. Elements of content analysis are — CO1 K2
   a. unit, subunit, topic
   b. aims and objectives
   c. teaching methods, teaching aids, evaluation pattern
   d. all the above

2. Pedagogical analysis can be defined as — CO1 K2
   a. classroom management
   b. process of lesson planning
   c. systematic break up of the curriculum
   d. teaching practice

3. The major utility of text book is — CO2 K3
   a. to do homework
   b. to guide the teacher
   c. both a and b
   d. to guide the student

4. One of the following is not a characteristic of a good textbook. — CO2 K4
   a. It may not cover the entire syllabus of one stage
   b. It is a finished product for transferring the knowledge
   c. It should not be self-contained
   d. It may not be necessarily for a whole year

5. This is not an advantage of e-content usage. — CO3 K3
   a. Cost effectiveness
   b. User friendly
   c. No need of technical knowledge
   d. Minimization of distance

6. The number of quadrants in e –content is / are — CO3 K1
   a. One b. Five c. Three d. Four

7. The variable being manipulated or varied in some way by the researcher is _____ variable. — CO4 K5
   a. dependent b. independent c. intervening d. extraneous

8. One of the following characteristics of research states that, research results must be applicable and acceptable worldwide. — CO4 K2
   a. Replicability b. Generizability c. Regard d. Objectivity

9. Co-curricular activities should be organised in schools because — CO5 K3
   a. It helps institution to get fame
   b. It helps in the overall development of child
   c. It helps in the justification of fee collection
   d. It is important for those students who do not take interest in studies

10. Activities like debate and discussion are beneficial for the development of _____ abilities. — CO5 K3
    a. emotional b. psychological c. intellectual d. physical

Part B **5 x 6 = 30**

Answer ALL questions

Each answer should not exceed 400 words or two pages

11.a. Elucidate the steps of pedagogical analysis.	CO1 K4
(or)	
11.b. Point out the significance of pedagogical analysis in teaching learning system.	CO1 K2
12.a. Describe the need and importance of images and colours in biology text book.	CO2 K2
(or)	
12.b. Examine the characteristics of a good biology text book.	CO2 K5
13.a. Explain the phases involved in e-content development	CO3 K2
(or)	
13.b. Discuss the principles to be followed while preparing the script for e-content.	CO3 K1
14.a. Explore the types of variables with suitable examples.	CO4 K3
(or)	
14.b. Differentiate pure and applied research (any six).	CO4 K2
15.a. Highlight the importance of co-curricular activities in science.	CO5 K4
(or)	
15.b. Describe the constitution and activities of a Science Club.	CO5 K2

Part C **5 x 12 = 60**

Answer ALL questions

Each answer should not exceed 800 words or four pages

16.a. Critically analyze the biology content of standard IX science text book of Tamilnadu on the basis of its merits and demerits.	CO1 K4
(or)	
16.b. Discuss the conceptual overview of biology content of standard VIII science text book of Tamilnadu in the application aspect.	CO1 K2
17.a. Explain and illustrate how a biology text book is evaluated.	CO2 K5
(or)	
17.b. Discuss the categories and utilization of text books.	CO2 K2
18.a. Design a e-content module for a topic in biology at high school level.	CO3 K6
(or)	
18.b. Discuss the prospects and challenges of e-content development in the present educational context.	CO3 K5
19.a. Elucidate the procedure to conduct action research with appropriate illustrations.	CO4 K3
(or)	
19.b. Draft a mini project proposal for action research.	CO4 K6
20.a. Discuss any three co-curricular activities which you would like to organize at high school level.	CO5 K3
(or)	
20.b. Explain the role of teacher in conducting science exhibition to promote scientific interest and creativity of students.	CO5 K4

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