



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikwe Express Way, Jabi, Abuja, FCT
Faculty of Health Sciences
Department of Nursing Sciences
2024 I EXAMINATION

Programme: Bachelor of Nursing Science
Course Code: NSC313
Course Title: Developmental Psychology as applied in Nursing
Course Credit Units: 3 Units
Time Allowed: 2 Hours
Total Score: 70 Marks
Instruction: Answer All the Questions

Question 1

- 1(a). What is developmental psychology? (2 marks)
1(b). Critically explore the major issues in the study of developmental psychology (6 marks)
1(c). Describe how you can apply developmental psychology to your career (12 marks).

Question 2

- 2(a). Discuss how hereditary and environmental factors impacts childhood development. (10marks)
2(b). List and explain five (5) specific traits determined by heredity. (10marks).

Question 3

3. Discuss five (5) factors influencing prenatal development. (10 marks)

Question 4

- Write short note on the following. (12 marks)
a. Erikson's psychosocial development stages and age range (8 marks)
b. Physical development during adolescence

- iii. Mention two plants that produce sucrose (2Marks)
- (2c) i. Briefly explain how monosaccharides units are linked (2 Marks)
- ii. Draw the structure of Trehalose and Maltose and identify any two functional groups in both (6 Marks)

QUESTION THREE

- (3a) i. What do you understand by the term galactosemia? (2 marks)
- ii. When cyclic D-glucose reacts with methanol, what class of compound is formed? Illustrate with appropriate equation of reaction. (4 marks)
- (3b) i. Briefly explain the function of Benedict's reagent. (2 marks)
- ii. What is Glycogen? (2 Marks)
- iii. State how cellulose differs from starch structurally (4 Marks)
- (3c) i. Draw the structure of lactose (4 marks)
- ii. Give four (4) different classes of carbohydrates with at least one examples each (4 marks)

QUESTION FOUR

- (4a) i. What does it mean when we say sugar is levorotatory? (2 marks)
- ii. State the difference between gluconic and glucaric acid (2 marks)
- iii. Using structure only describe Salicin (2 marks)
- (4b) i. Name three polysaccharides that gives single type of monosaccharides on complete hydrolysis (3 marks)
- ii. Mention the main carbohydrate constituents of honey (2 marks)
- iii. What are Monosaccharides (1 mark)
- (4c) i. Describe arabinoxylans (4 marks)
- ii. Using the Fisher projection formula, write the structural formula for L-aldotetrose (2 marks)
- iii. Draw the structure of α -D-glucofuranose (2 marks)

QUESTION FIVE

- (5a) i. Mention two sugars that are components of genetic materials (2 marks)
- ii. Show the reactions of quinoline with acyl and alkyl halides (4 marks)
- (5b) i. What are the similarities between Chitin and cellulose (2 marks)
- ii. What is Glycogen? (2 Marks)
- iii. Identify what is generated when DMF and phosphorus oxychloride are reacted together in the Vilsmeier reaction (2 Marks)
- (5c) i. Briefly explain how to produce smokeless powder from cellulose (3 Marks)
- ii. Using equation only shows the reaction of triethyl orthoformate with indole (5 Marks)