

**M.Sc. 2nd Semester Examination, 2023**

**HUMAN PHYSIOLOGY**

**PAPER — PHY-201.1 & 201.2**

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

**PHY-201.1**

[ Marks : 20 ]

*(Community Health : Health, Disease and Nutrition)*

**GROUP — A**

Answer any **two** questions from the following : 2 × 2

1. Briefly discuss the functions of soluble dietary fibre. 2

*( Turn Over )*

2. Mention the feeding problems of pre-term babies. 2
3. Mention the risk factors for childhood dental carries. 2
4. Briefly write down the sign and symptoms of binge eating disorder (BED). 2

GROUP – B

Answer any **two** questions from the following :

5. Define bulimia nervosa. Mention its sign and symptoms. Which nutritional supplements are prescribed for these patients.  $4 \times 2$   
 $1 + (1 + 2)$
6. What are the risk factors for childhood-constipation ? Classify laxatives used for constipation.  $2 + 2$
7. Describe the mechanism of acute inflammatory

response in food allergy. What do you mean by anaphylactic shock (anaphylaxis)? 3 + 1

8. Write down the symptoms of cow milk protein allergy. Cite the examples of medicine prescribed for food allergy. 2 + 2

### GROUP – C

Answer any **one** question from the following :

8 × 1

9. Describe the major developmental changes of foetus during first trimester of pregnancy. Briefly describe the functional status of cardiovascular system in foetus. How does maternal age impact on pregnancy? Mention the advantages of pregnancy over the age 35 years in mother's body. 3+2+2+1
10. Describe briefly the hormonal regulation of mamogenesis. Define lactogauges with suitable example. Draw a food pyramid for sedentary lactating mother. 4 + 2 + 2

**PHY-201.2**

[ Marks : 20 ]

*(Community Health : Environmental Pollution,  
Toxicology and Management)*

**GROUP – A**

Answer any **two** questions from the following :  $2 \times 2$

1. What do you mean by 'Predation' and 'Commensalism' ? 2
2. Mention the direct and indirect action of ionizing radiation. 2
3. What is the 'Toxicokinetics' ? 2
4. Write the utility of "Mini-micro hydel power projects". 2

**GROUP – B**

Answer any **two** questions from the following :  $4 \times 2$

5. Discuss the pathophysiology of CO poisoning with special reference to its binding with heme-containing proteins. 4

6. Discuss the sources and mechanism of organic mercury toxicity. 1 + 3
7. Discuss critically the carcinogenic action of radiation. What is "Prodromal Stage" ? 3 + 1
8. What is a biosphere reserve ? Mention the importance of biosphere reserve. 1 + 3

**GROUP – C**

Answer any one question from the following :

8 × 1

9. Define "biotransformation". Describe the phase I biotransformation reactions. Write a note on 'cytochrome P450 enzyme'. 2 + 3 + 3
10. What is Waste to Energy (WTE) conversion ? "Extended Producer Responsibility (EPR) can be used as a tool for resource reduction". Explain it. What is leachate ? 3 + 3 + 2
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