

M.Sc. 2nd Semester Examination, 2023

HUMAN PHYSIOLOGY

PAPER — PHY-202.1 & 202.2

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-202.1

[Marks : 20]

*(Community Health : Exercise Physiology
and Mass Fitness)*

GROUP — A

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

2 × 2

1. What is 'cognitive ergonomics' ?

2

(Turn Over)

2. What do you know about 'ABC' strategy? 2
3. Define 'concentric' and 'eccentric' contraction. 2
4. What do you mean by heat syncope? 2

GROUP – B

Answer any two questions from the following :

4 × 2

5. State the principles of anthropometry for ergonomic design. 4
6. Describe different training procedures for competition at high altitude. 4
7. Describe the exercise prescription for the patients with pulmonary diseases. 4
8. Explain – “fitting the task to the man”. Distinguish between static and dynamic anthropometry with examples. 2 + 2

(3)

GROUP – C

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

8 × 1

9. (a) Describe the anaerobic energy release mechanism during muscular activity.

(b) Mention different benefits of physical fitness activity.

5 + 3

10. (a) Describe the general adaptation syndrome (GAS) with the help of a diagram.

(b) How could you prevent workplace heat stress ?

5 + 3

PHY-202.2

[Marks : 20]

GROUP – A

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

2 × 2

1. What is leptin resistance ?

2

2. How does TIBC and ferritin level help to detect iron deficiency anemia ? 2
3. What is pathological aging ? 2
4. Mention the objectives of Mid Day Meal Programme. 2

GROUP – B

Answer any two questions from the following :

4 × 2

5. What is SOCS3 ? What is its role in leptin signalling ? How does sibutramine work for weight loss ? (1 + 1) + 2
6. Discuss the role of NaFeEDTA as an iron fortificant. Discuss the management of iron deficiency anemia at the community level. 2 + 2
7. How does poor nutrition affect the elderly ? Mention the causes of osteoporosis in elderly. 2 + 2

8. Write a short note on the role and responsibilities of Anganwadi workers. Who are the beneficiaries of the ICDS programme ? 2 + 2

GROUP – C

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

8 × 1

9. Mention the role of NPY in energy regulation. What is an ob/ob mice ? Discuss the merits and demerits of bariatric surgery for weight management. 3 + 2 + 3
10. What is the importance of supplementary nutrition programme (SNP) ? Mention the dietary components that influence iron absorption. Write the dietary guidelines for elderly people proposed by WHO. 2 + 3 + 3
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