

2017

M.Sc.

3rd Semester Examination

HUMAN PHYSIOLOGY

PAPER—PHY-304

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

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

Illustrate the answers wherever necessary.

(Unit—01)

Answer all questions from the following :

1. (a) Differentiate 'Weather' and 'Climate'.
(b) State the reasons of how climate influences the life on earth.

(Turn Over)

(c) Write down any two effects of global warming.

(1+1)+2+1

Or

(a) What are vector-borne diseases?

(b) How does climate change has impact on vector-borne diseases?

(c) How does climate change influence aeroallergens?

1+2+2

2. (a) What are environmental pollutants?

(b) What are the exogenous sources of carbon monoxide (CO)?

(c) How haemoglobin, myoglobin and cytochromes are affected by CO-poisoning?

1+1+3

Or

(a) What are fine particulate matters?

(b) How do particulate matter cause toxicity to lung?

(c) Mention the mechanism of induction of oxidative stress by particulate matters.

1+2+2

3. (a) What do you mean by 'Epidemiology'?
- (b) How does epidemiology influence public health?
- (c) Critically write the measures of disease frequency.
- 1+2+2

Or

- (a) Write the common steps to establish a relationship between exposure and disease.
- (b) How can you calculate the case fatality rate (CFR).
- (c) Correlate the relationship between smoking and lung cancer with Two-by-two hypothetical table. 2+1+2
4. (a) What are the basic components of a landfill?
- (b) What is leachate?
- (c) What are the merits and demerits of composting?
- 2+1+2

Or

- (a) What do you understand by 'Municipal Solid Waste (MSW)'?

- (b) What is waste-to-energy (WTE) conversion? Describe the steps involved in this method.
- (c) What is Co-composting? 2+2+1

(Unit—02)

Answer all questions from the following :

1. (a) Mention the male and female secondary sex organs.
- (b) What is 'Brain-testicular axis'?
- (c) State briefly the process of spermatogenesis. 1+1+3

Or

- (a) Describe the different phases of ovarian cycle.
- (b) Discuss hormonal interactions during the ovarian cycle. 2½+2½
2. (a) What is meant by growth and development?
- (b) Mention the life stages including adolescence.

- (c) What are the major domains of growth and development? (1+1)+1+2

Or

- (a) Define puberty.
- (b) What are the physical changes observed in girls during puberty?
- (c) Mention the major endocrine glands involved in pubertal changes.
- (d) How does "Low self esteem" can be described as adolescence crisis? 1+2+1+1
3. (a) What are RTI and STI?
- (b) Describe the causes and precautions for RTIs.
- (c) Discuss the role of antenatal clinics in management of RTI/STI. 1+3+1

Or

- (a) Discuss briefly about the causes and management of infertility.
- (b) What do you understand by in-vitro fertilization?
- (c) What is a savior sibling? 2+2+1
4. (a) Briefly discuss the overall impact of menopause on women's health care.
- (b) Write the causes of menopause.
- (c) What is night sweat? 2½+1½+1

Or

- (a) Write the hormone replacement therapy (HRT) regarding menopause.
- (b) Critically discuss the alternatives to hormone therapy. 2½+2½
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