2020
PHYSIOLOGY
[HONOURS]
Paper : IX

Full Marks : 80 Time : 4 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.

Answer all the questions.

GROUP-A

1. Answer any **seven** questions: 1×7=7

   a) Name one biopesticide.

   b) What is 'resolving power of a microscope'?

   c) Define noise.

   d) What are carcinogens? Give an example.

   e) What is meant by mode?

   f) Name two toxins responsible for food poisoning.

   g) What is the audible level of sound in human?

   h) State the use of EEG?

   i) $(1101)_2=(?)_{10}$

GROUP-B

2. Answer any **six** questions: 2×6=12

   a) What is the significance of ozone hole?

   b) What is alactic O_2 debt?

   c) What are nerve gases? Give an example.

   d) Define BOD.

   e) What is frequency polygon?

   f) Define VO_2 max. State its unit.

   g) What is arsenicosis?

   h) $(1011)_2+(0101)_2=(?)_2$

GROUP-C

3. Answer any **three** questions: 7×3=21

   a) How can you identify ventricular hypertrophy from ECG recordings? Write the clinical importance of USG. 3+4=7

   b) What is logic GATE? What do you mean by computer language? 2+5=7

   c) Compute the mean body weight from the following frequency distribution of body weights (kg) in a sample of humans.

Class intervals:	51-53	54-56	57-59	60-62	63-65
Frequencies:	4	7	12	25	13

d) What is the principle of MRI? State the role of MRI in diagnosis. 3+4=7

e) What is meant by Physiological work load? Describe the physiological classification of work load. 2+5=7

GROUP-D

4. Answer any **four** questions: 10×4=40

a) i) Describe the components of computer.

ii) Distinguish between human brain and computer. 7+3=10

b) i) Discuss the differences between Hypo and Hyperbaric environment.

ii) Discuss about the health hazards of primary air pollutants, gaseous in nature. 5+5=10

c) i) What is dynamic work?

ii) Describe the effects of endurance training on cardiovascular system. 3+7=10

d) i) What is ionising radiation?

ii) Discuss its harmful effects on human body. 2+8=10

e) i) Discuss about the mechanism of drug action at cellular level.

ii) What do you mean by 'dose response curve' of a drug? 7+3=10

f) i) What are mutagens? Give an example.

ii) How can you identify a potential mutagen by Ame's test? 2+8=10

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