

**B.V.Sc. & A.H. (Part – V) Examination – 2020  
of the Five-Year Degree Course  
(MSVE2008)**

**VETERINARY PUBLIC HEALTH AND EPIDEMIOLOGY PAPER-II**

**To be filled by the candidate:**

Candidate's Roll Number:

In figure .....

In words .....

Candidate's Enrolment Number: .....

Day and date of examination: .....

Please see for general instructions overleaf.

**Signatures of invigilators verifying the details filled by the candidate**

Signature of invigilator 1: ..... 2: .....

Candidate should not write anything below this line

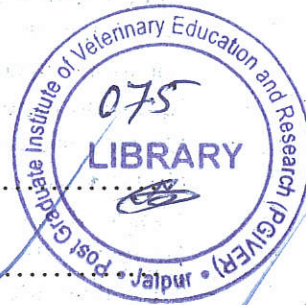
**Marks to be filled by the examiner:**

Section A	
Q. No.	Marks
1.	
2.	
3.	
4.	
5.	
<b>Total</b>	

Total Marks obtained:

In figures: ..... In words: .....

Signature of examiner: .....



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### **INSTRUCTIONS TO THE CANDIDATES**

1. The invigilator and the members of the Flying Squad are empowered to take search of the examinees during the examinations.
2. Candidate should read the question paper and the instructions carefully before they begin to write answers.
3. The candidate will not be allowed to leave the examination hall before one hour from the end of the examination time.
4. Write on the cover page all the required entries correctly and get the signature of the invigilators.
5. Write legibly in the space provided for answer of each questions/sub-questions according to instruction given in the question paper booklet (question paper).
6. Do not write your name on any part of the question paper / answer booklet.
7. Do not leave examination hall without handing over question paper / answer booklet to the invigilator incharge.
8. No leaves should be torn out of the question paper / answer booklet.
9. Candidate attempting to use unfair means or talking to one another will be dealt with severely as per unfair means rules.
10. No written paper or book notes etc. should be brought to examination hall.
11. Total number of pages of question paper / answer booklet be checked before writing.
12. Candidate should not bring in any article other than pens and admit card. Use of Mobiles, calculators on any other electronic device in the examination hall is strictly prohibited.

**SPACE FOR ROUGH WORK**

**B.V.Sc. & A.H. (Part – V) Examination – 2020  
of the Five-Year Degree Course  
(MSVE2008)**

**VETERINARY PUBLIC HEALTH AND EPIDEMIOLOGY PAPER-II**

**Time: Three Hours**

**Maximum Marks: 30**

Section A: Environment and Environmental Hygiene: VPE-511:

Marks 30

**Instructions:**

- 1) Attempt all questions
- 2) Answer of all questions is to be written in the space provided along with the question in question-booklet.
- 3) Overwriting is not allowed in the objective type question.

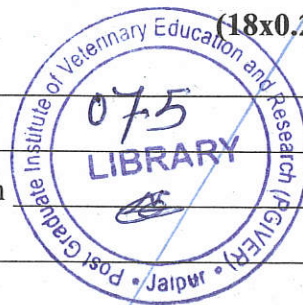
**SECTION – A:**

**Maximum Marks 30**

**Q.1 Fill in the blanks.**

**(18x0.25 = 4.5)**

- 1.1 A nuclear disaster took place in 1986 at \_\_\_\_\_.
- 1.2 London smog deaths (1952) were due to \_\_\_\_\_ gas.
- 1.3 In the vicinity of brick kilns animals suffer from \_\_\_\_\_.
- 1.4 Strontium <sup>90</sup> is also called as \_\_\_\_\_.
- 1.5 Smoke is measured in terms of \_\_\_\_\_ units.
- 1.6 Noise level beyond \_\_\_\_\_ decibels is not permissible.
- 1.7 Radioactivity released into atmosphere from nuclear explosion is known as \_\_\_\_\_.
- 1.8 Retention time in Primary Sedimentation tank in sewage treatment is \_\_\_\_\_ hrs.
- 1.9 Decomposing sewage gives \_\_\_\_\_ odour to deep well water.
- 1.10 Abbreviation HEPA filter stands for \_\_\_\_\_.
- 1.11 Smallest spatial unit providing uniform condition for life is known as \_\_\_\_\_.
- 1.12 An \_\_\_\_\_ pH(**acidic/alkaline**) favours anaerobic digestion of sewage.
- 1.13 Water (Prevention and Control of Pollution) Act was enacted in the year \_\_\_\_\_.
- 1.14 The unit of measurement of Ozone is \_\_\_\_\_.
- 1.15 Minamata disease was due to toxicity of \_\_\_\_\_ a heavy metal.
- 1.16 The strength of sewage is measured in terms of \_\_\_\_\_.
- 1.17 The best method to dispose BSE infected carcass is \_\_\_\_\_.
- 1.18 \_\_\_\_\_ bacteria in the soil convert ammonia (NH<sub>3</sub>) into nitrites (NO<sub>2</sub><sup>-</sup>).



**Q.2 Choose the most suitable answer and write the number of the correct answer 1 or 2 or 3 or 4 in the space given against each sub question: (18x0.25 = 4.5)**

- 2.1 Environmental hygiene is concerned mainly with: ( )  
1. Human and animal health  
2. correction & improvement of environment  
3. Both 1&2  
4. None of above
- 2.2 Anthropogenic ecosystem means: ( )  
1. Created by man  
2. Created by God  
3. All of the above  
4. None of above
- 2.3 The most appropriate definition of biotope is: ( )  
1. Collection of all living organism in a biotope  
2. Synonyms for biomes  
3. Smallest spatial unit providing uniform condition for life  
4. None of above
- 2.4 Word ecology was coined by: ( )  
1. Robert Koch  
2. Ernst Haeckel  
3. Luis Pasteur  
4. None of above
- 2.5 Which among following is not a greenhouse gas: ( )  
1. Chlorofluorocarbon  
2. CO<sub>2</sub>  
3. Methane  
4. Oxygen
- 2.6 CO<sub>2</sub> gas in atmosphere is increasing since 1890 @: ( )  
1. 1.5 ppm  
2. 5 ppm  
3. All of above  
4. None of the above
- 2.7 Food web is: ( )  
1. Network of interconnected food chain  
2. Feeding connection amongst different organism of a biotic community  
3. Both 1 & 2  
4. None of the above
- 2.8 Ecological pyramids are of following types: ( )  
1. Pyramids of numbers, pyramids of biomass  
2. Pyramids of biomass  
3. All of the above  
4. None of above
- 2.9 Dental mottling seen in man/animals is due to: ( )  
1. Low oxygen levels  
2. Lead poisoning  
3. Fluoride excess  
4. None of above

- 2.10 "Global sink" for CO<sub>2</sub> pertains to: ( )
1. Absorption of CO<sub>2</sub> by air
  2. Absorption of CO<sub>2</sub> by Oceans
  3. Absorption of CO<sub>2</sub> by atmosphere
  4. All of above
- 2.11 The effective size of sand granules in a slow sand filter is: ( )
1. 0.15 to 0.35mm
  2. 1 to 2.0mm
  3. 0.6 to 2.0 mm
  4. None of the above
- 2.12 Drinking water should have hardness: ( )
1. 1-3 ppm of CaCO<sub>3</sub>
  2. 1-3 mEq/l of CaCO<sub>3</sub>
  3. 50-150 mEq/l of CaCO<sub>3</sub>
  4. None of the above
- 2.13 Class of insecticides represent CLASSICAL example of Biomagnification: ( )
1. Organochlorine
  2. Organophosphorous
  3. Both 1&2
  4. None of the above
- 2.14 Comparatively HIGHEST contribution to Greenhouse effect is by: ( )
1. Water vapours
  2. Carbon dioxide gas
  3. Methane gas
  4. None of the above
- 2.15 Among the following, what is CORRECT about Biosafety levels and Biosafety Cabinets in microbiological laboratory: ( )
1. There are 4 biosafety levels and 4 classes of Biosafety Cabinets
  2. There are 4 biosafety levels and 3 classes of Biosafety Cabinets
  3. There are 3 biosafety levels and 4 classes of Biosafety Cabinets
  4. There are 3 biosafety levels and 3 classes of Biosafety Cabinets
- 2.16 Among the following, which is/are Iron bacteria: ( )
1. Crenothrix
  2. Gallionella
  3. Both 1 & 2
  4. None of the above
- 2.17 Among the following, what is CORRECT about Eutrophication: ( )
1. Excessive algal growth in water bodies because of nitrogen and sulphur fertilizers.
  2. Excessive bacterial growth in water bodies because of nitrogen and sulphur fertilizers.
  3. Excessive algal growth in water bodies because of nitrogen and phosphorous fertilizers.
  4. Excessive bacterial growth in water bodies because of nitrogen and phosphorous fertilizers.



- 2.18 Among the following, which is/are radioactive gas(es): ( )
1. Uranium
  2. Radon
  3. Nitrogen
  4. All of the above

**Q.3 Attempt any eighteen out of the following twenty-four questions. Answer of each question should be in 2 to 3 lines. (18x0.5=9)**

3.1 Ecology:

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3.2 Acid rain:

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3.3 PM<sub>2.5</sub>:

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3.4 Break point:

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3.5 Veterinary Public Health:

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3.6 Wholesome water:

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3.7 Itai-Itai disease:

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3.8 Eutrophication:

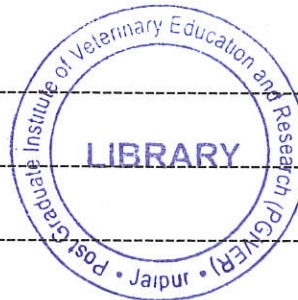
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3.9 Nuclear Fallout:

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3.10 Biomass:

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3.11 Anthracosis:

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3.12 Food chain:

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3.13 BOD:

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3.14 Blue Baby Syndrome:

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3.15 Indicator organisms:

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3.16 Biodiversity:

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3.17 Air Pollution:

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3.18 Environment:

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3.19 Biotope:

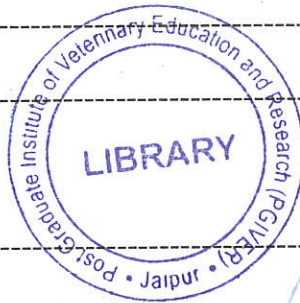
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3.20 Eijkman's test:

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3.21 Disaster:

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3.22 Super chlorination:

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3.23 Define Health:

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3.24 COD

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**Q.4 Attempt any six out of the following eight questions. Answer of each question should be in 5 to 8 lines. (6x1 = 6)**

4.1 Why slaughter house wastes must be treated before release into water?

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4.2 The level of noise should be low in poultry houses. why?

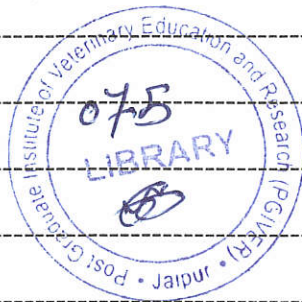
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4.3 Formation of vital layer is considered essential in slow sand filters. Give reasons.

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4.4 Chlorine acts best when pH of water is around 7.0 (6.0-7.5). Why?

4.5 Why is the depth of oxidation ponds recommended to be 3-5 feet?



4.6 Greenhouse effect.

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4.7 Slow sand filters are being replaced by rapid sand filters. Do you agree? If yes, why?

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4.8 Renewable sources of energy

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**Q.5 Answer the following question in 1-2 pages (attempt any two). (2x3 = 6)**

5.1 Enumerate the various methods of large-scale purification of water. Discuss briefly the slow sand filtration of water.

5.2 Name various methods of sewage disposal. Describe the oxidation pond method in brief.

Q. No. ....

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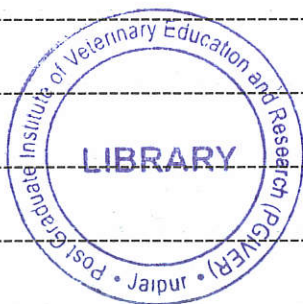
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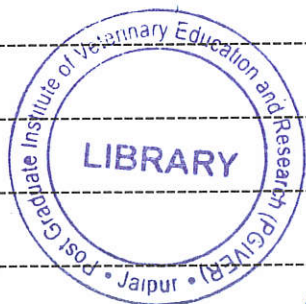


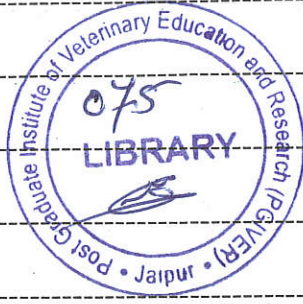
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Q. No. ....

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