

B.Sc. (Sem.-V) Examination
301 CC Health & Hygiene
May-2017

Time : 3 Hours]

[Max. Marks : 70

HTH-301 Computational Science in Health

Q-1 Answer any **two**

14

- A. Write a short note on different operating systems.
- B. Explain the application of personal computers in home and offices.
- C. Describe the importance and uses of internet in detail.
- D. List various modules MS Office and discuss use of any one

Q-2 Answer any **two**

14

- A. Explain variance and standard deviation. For the following set of data for an antibiotic calculate the standard deviation and variance: 33,34,39,41,40,45,47.
- B. Write a short note on Central tendency. Calculate the mode from the following data

| Age group | Positive effect of drug (%) |
|-----------|-----------------------------|
| 0-5 | 40 |
| 6-10 | 55 |
| 11-15 | 33 |

- C. Write a short note on Kaplan Meier curve.
- D. Write a short note on hypothesis testing.

Q-3 Answer any **two**

14

- A. Define gene sequencing. Enlist and explain in detail all the methods of gene sequencing.
- B. Write a short note on Blast.
- C. What is image analysis? Discuss the software used for image analysis.
- D. Discuss the importance of GPS and remote sensing in detail.

Q-4 Answer any **two**

14

- A. Discuss in detail the importance and application of SPSS.
- B. How is the computer system helpful in healthcare? Explain
- C. Discuss the application and advantages of robotic surgery in healthcare.
- D. Discuss the software used in administration.

Q-5. Answer the following questions

14

1. Write the full form of SPSS
2. What is the difference in local and global alignment
3. Write the fullform of jpeg.
4. What is null hypothesis?
5. Define p value.
6. Name the oldest method of sequencing.
7. Give the relation between standard deviation and variation.
8. Define operating system.
9. Write the function of keyboard keys.
10. What is CEPT?
11. What are the different parts of computer hardware?
12. Write the different types of printers.
13. Write an application of remote sensing.
14. Differentiate between airborne and platform sensor.

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Instructions: (1) All question carry equal marks.

(2) Draw neat and labelled diagrams wherever necessary.

Q-1. Answer the following (Any Two)

(11)

- A. Write note on important medicinal and aromatic plants of India.
- B. Explain medicinal importance of Gymnosperms and Bryophytes plants
- C. Discuss medicinal use of Bacteria and fungi along with disease in India
- D. Explain policies for their conservation and sustainable use of medicinal plants.

Q-2 Answer the following (Any Two)

(11)

- A. Describe physical and chemical properties of soil.
- B. Explain components and types of soil.
- C. Explain agro-climatic zones of India.
- D. Discuss soil fertility and productivity.

Q-3. Answer the following (Any Two)

(11)

- A. What is Hybridization? Define Inbreeding and Outbreeding.
- B. Describe role of human in the selection and production of new varieties of crops.
- C. What is mutational breeding? Describe spontaneous and induced mutation.
- D. Define mutagen and explain type mutagens.

Q-4. Answer the following (Any Two)

(11)

- A. Describe botanical name, family name, parts used and medicinal use of Ashok, Calihari and Neem.
- B. Describe common name, family name, parts used and medicinal use of *Santalum album*, *Pepper longum* and *Asparagus racemosus*.
- C. Describe therapeutic powers of Harida and Bahada
- D. Write uses of Henna and Amla.

Q-5. Answer in brief

(14)

- 1. List components that make a plant medicinally important
 - 2. Give botanical name and use of Harida.
 - 3. Give two examples of medicinally useful Algae.
 - 4. Give botanical name and use of Madhunasini.
 - 5. Mention uses of aromatic plants.
 - 6. How to maintain soil fertility?
 - 7. Give botanical name and use of Tulsi.
 - 8. Name any two non-angiosperm medicinal plant.
 - 9. What is pH of the fertile soil?
 - 10. Give botanical name and use of Satavari.
 - 11. What is loam?
 - 12. Give botanical name and use of Vasa Bilva.
 - 13. Name any two aromatic plants and its use.
 - 14. Give botanical name and use of Guggul.
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