Reg. No. : ....

Name : ....

Sixth Semester B.Sc. Degree Examination, March 2021

First Degree Programme under CBCSS

Physics

Elective Course

PY 1661.5/PC 1661.6 -COMPUTER HARDWARE AND NETWORKING

(2015 –2017 Admission)

Time : 3 Hours   Max. Marks : 80

SECTION – A

Answer **all** questions in **one** or **two** sentences. **Each** question carries **1** mark.

1. Write any function performed by BIOS.

2. Define SIMM

3. What is the function of CMOS battery?

4. What is POST operation?

5. How do you distinguish a Fire-wire connector from USB?

6. What is the use of an add on card in your computer system?

7. What is the advantage of optical disc drive over magnetic disc drive?

8. What is the purpose and function of median an HDD?

9. Explain the advantages of GPRS technology in mobile phones

10. What do you understand by Ethernet?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions not exceeding a paragraph. **Each** question carries 2 mark.

11. Distinguish RISC and CISC in terms of number of machine cycles per instruction.

12. How cache memory is different from RAM?

13. What do you understand by motherboard form factor?

14. What do you understand by Chipset?

15. SRAM is used in cache memory while DRAM is used in main memory. Explain.

16. How do you explain IP addressing method?

17. What is meant by partitioning of disc drives to organize file system?

18. Mention the layers in TCP /IP.

19. What do you understand by protocol in Computer communication?

20. What is computer multitasking?

21. Distinguish an online and an Offline UPS.

22. Write any two advantages of an SMPS over a regulated Power supply.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. **Each** question carries 4 marks.

23. What are the characteristics of RISC?

24. What are the slots and ports found in motherboard?

25. Explain Why BIOS need CMOS to perform its operations.

26. Six devices are connected each other in a mesh topology. Find the total number of dedicated risks needed to connect them.

27. Explain Routers and Gateways

28. What is meant by protocols? Write the different WAN protocols in use.

29. What do you understand by Host ID and Subnet mask

30. Write a note on the characteristics and risks of a trojan virus. How does it affect your system?

31. Find the class of the following IP address

    (a) 10.50.120.7

    (b) 172.16.55.13

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

32. Explain, the different types of computer networks? Discuss their disadvantages and disadvantages. Define Internet work, intranet and extranet. Explain various types of network topologies.

33. Discuss the hardware of a Hard Disk Drive (HDD) and the block diagram of Hard Disc Controller. What is the criterion to choose the File Formats such as FAT / NTFS during the installation of HDD in a computer system?

34. What is IP addressing? How they are managed and distributed? Discuss IP version and class-network architecture.

35. Why a layered architecture is used in computer network? Discuss OSI model, explain the task performed by each layer with the help of figure.

(2 × 15 = 30 Marks)