



WEST BENGAL STATE UNIVERSITY

B.Sc. General Part-III Examination, 2021

COMPUTER SCIENCE

PAPER: MSG-IV-A

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

Answer Question No. 1 and any *five* questions from the rest

1. Answer any *five* questions from the following: 2×5 = 10
- (a) What is bit rate?
 - (b) What is the purpose of gateway?
 - (c) Discuss the disadvantage of star topology.
 - (d) What is a token?
 - (e) What is Manchester encoding?
 - (f) What are Routers?
 - (g) What are the layers in OSI Reference Models?
 - (h) What is SNMP?
2. (a) Find the class (with the range of first byte) of each addresses: 2+2
- (i) 1·0·0·0
 - (ii) 140·10·82·42
- (b) What is point to point link? 2
- (c) What is a bridge? 2
3. (a) What is a firewall? 2
- (b) What is the main job of ARP? 2
- (c) What is Ping? 2
- (d) What is a packet switched network? 2
4. (a) Define FSK and PSK. 2+2
- (b) Write short notes on differential Manchester encoding. 2
- (c) Describe the working principle of co-axial cable. 2

5. (a) Describe the IP addressing. 4+2+2
(b) Explain centralized computing with example.
(c) Explain the important of Internet browser.
6. (a) Define network layer of OSI model. 2+4+2
(b) Compare TCP/IP and OSI Model.
(c) What is protocol?
7. (a) What is modulation? Write the need of carrier signal in modulation. 2+2
(b) Define channel capacity. What is S/N ratio? 2+2
8. Write short notes on any *two* of the following: 4×2 = 8
(a) Congestion control
(b) X.25
(c) Logical link control (LLC)

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

—x—