B.Sc. (G) / III

·**B**

COMPUTER SCIENCE— Paper VI

(Multimedia System and Application Operating System)

Time : 3 hours

Maximum Marks : 38

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt all questions.
Parts of a question must be attempted together.

1.
   a) What is ETVX approach for process specification?

   b) For what purpose is a Data Dictionary used?

   c) List two tools used for information gathering during requirement analysis.

   d) Write the equivalent Unix commands for the following DOS commands:-
      REN and DIR.

   e) How will you print the contents of files named "ppp", "qqq" and "ccc" using a single Unix command?   1

   f) Write a Unix command which kills all processes except the login shell.   1

   g) Write the names of any two shell variables.   1

   h) Name two input devices for generative graphics applications.   1

   i) What do you understand by a Composite Video Signal?   1

   j) An image has a resolution of 1024 x 768 and color depth of 24 bits (i.e. 8 bits each for R, G, B). Calculate the storage requirement of this image.   1

2.
   a) What is *coupling*? Explain coupling with respect to object oriented systems.   2

   b) Briefly explain video conferencing in your own words.   2

   c) What are filters in Linux? Give the name of any four filter commands.   3

3.
   a) Explain how an analog *signal* is transformed into a digital signal.   2

   b) Write a shell script to check whether a number entered at command line is prime or not?   2

   c) What is data compression? Compare Lossless and Lossy data compression techniques.   3

4.

Write short notes on the following:- 3× 2=6

a) COCOMO model for effort estimation

b) Risk Analysis and its impact on software projects

5.

Differentiate between any four of the following: 2× 4=8

a) > and >> operator in Unix

b) Animation and video

c) Waterfall model and Prototype model

d) Black Box Testing and White Box Testing

e) $* and $@