

Total No. of Questions—5]

[Total No. of Printed Pages—3

Seat No.	
-------------	--

[4968]-3005

B.C.A. (Third Semester) EXAMINATION, 2016

SOFTWARE ENGINEERING

(2013 PATTERN)

Time : Three Hours

Maximum Marks : 80

N.B. :— (i) *All* questions are compulsory.

(ii) *All* questions carry equal marks.

1. Attempt the following (any *eight*) :

[16]

- (a) Define Physical and Abstract systems.
- (b) Define Software Engineering.
- (c) Define the term Cohesion.
- (d) Explain any *one* role of system analyst.
- (e) Define Pseudo-code and state its advantages.
- (f) Define the elements of system.
- (g) Define afferent and efferent module.
- (h) State any *two* disadvantages of waterfall model.
- (i) Explain structured interview ?
- (j) State any *two* principles of testing.

P.T.O.

2. Answer the following (any *four*) : [16]

- (a) Explain prototype model in detail.
- (b) Explain bottom-up approach of integration testing.
- (c) Explain structure chart in detail with example.
- (d) Explain performance testing, regression testing and acceptance testing in detail.
- (e) Define coupling and types of coupling.
- (f) Explain SRS Documentation in detail.

3. (a) Design a screen layout for quotation entry. [8]

(b) Draw a Decision tree and table for the following case :

If total income is less than Rs. 22,000 then no tax is deducted.

If income is between 22,000 to 30,000 deduction is 20% of the amount that exceeds Rs. 22,000.

If total income exceeds Rs. 1,00,000 then tax is Rs. 27,600 + 50% of the amount that exceeds Rs. 1,00,000. [8]

4. Write short notes on any *four* : [16]

- (a) Testing Process

- (b) McCall's Quality factors
- (c) Data Dictionary
- (d) Software characteristics
- (e) Spiral Model.

5. Consider a 'Life Insurance Corporation' system. Draw a :

- (1) Context Level DFD
- (2) 1st Level DFD

for the different activities of LIC.

[16]