

Roll No. ....

## **BCA-C104**

### **Bachelor of Computer Applications (First Semester)**

### **EXAMINATION, 2023-24**

SOFTWARE ENGINEERING

*Time : 2½ Hours*

*Maximum Marks : 60*

**Note :** All questions have to attempted.

#### **Section—A**

1. Multiple choice questions : 1 each

(a) What are the feature of software code ?

(CO1, BL-1)

- (i) Simplicity
- (ii) Accessibility
- (iii) Modularity
- (iv) All of the above

(b) Define Agile Scrum methodology ? (CO3, BL-2)

- (i) Project management that emphasizes incremental progress

- (ii) Project management that emphasizes decremented progress
  - (iii) Project management that emphasizes neutral progress
  - (iv) Project management that emphasizes no progress
- (c) What is functional requirement ? (CO2, BL-3)
- (i) Specifies the tasks of the program must complete
  - (ii) Specifies the tasks the program should not complete
  - (iii) Specifies the tasks the program must not work
  - (iv) All of the above
- (d) Which of the following is not a software process quality ? (CO3, BL-4)
- (i) Visibility
  - (ii) Timelines
  - (iii) Productivity
  - (iv) Portability
- (e) Which of the following documents contains the user system requirements ? (CO2, BL-3)
- (i) SRD
  - (ii) DDD
  - (iii) SDD
  - (iv) SRS

- (f) The word which describes the importance of software design is : (CO3, BL-4)
- (i) Complexity
  - (ii) Quality
  - (iii) Efficiency
  - (iv) Accuracy
- (g) The worst model of module cohesion is :
- (CO4, BL-3)
- (i) Coincidental Cohesion
  - (ii) Functional Cohesion
  - (iii) Temporal Cohesion
  - (iv) Logical Cohesion
- (h) What is the aim of the designer in software engineering ? (CO3, BL-1)
- (i) Cohesive, Coupled
  - (ii) Coupled, Cohesive
  - (iii) Coupled, Functional
  - (iv) Maintainable, Cohesive
- (i) Which of the model is not appropriate for accommodating any change ? (CO2, BL-2)
- (i) Waterfall model
  - (ii) Prototyping model
  - (iii) Build and Fix model
  - (iv) RAD model

- (j) In software engineering, which of these is not an essential activity for software process ?

(CO3, BL-3)

- (i) Software validation
- (ii) Software design and implementation
- (iii) Software evolution
- (iv) Software verification

- (k) Select which option is not true about SQA ?

(CO5, BL-4)

- (i) Audits and Review to be performed by the team
- (ii) Amount of technical work to be performed
- (iii) Evolution to be performed
- (iv) Documents that are produced by the SQA

- (l) Agile software development is based on which of the following type ?

(CO2, BL-3)

- (i) Iterative Development
- (ii) Incremental Development
- (iii) Both Incremental and Iterative Development
- (iv) Linear Development

2. Attempt any *four* of the following : 3 each

- (a) Differentiate between cohesion coupling.

(CO2, BL-2)

- (b) What is feasibility study ? What are the content we should contain in the feasibility report ?

(CO3, BL-3)

- (c) Explain Agile Methodology in short.  
(CO3, BL-4)
- (d) Comparison of unit testing and integration testing techniques. (CO3, BL-3)
- (e) What is software quality assurance ? (CO5, BL-2)

**Section—B**

3. Attempt any *two* of the following questions : 6 each
- (a) What are the characteristics of software ?  
(CO1, BL-2)
- (b) How does project risk factor affect the spiral model of software development ? (CO3, BL-3)
- (c) Difference between validation and verification.  
(CO3, BL-5)
4. Attempt any *two* of the following questions : 6 each
- (a) Explain the need of software life cycle models in software engineering. (CO3, BL-4)
- (b) Explain the different types of testing ?  
(CO5, BL-4)
- (c) Draw the use case diagram of airline reservation.  
(CO3, BL-3)

5. Attempt any two of the following : 6 each

- (a) Explain software requirement analysis and specifications. Discuss various methods for requirement gathering. (CO3, BL-4)

(b) Difference between PERT chart and Gantt Chart ? (CO5, BL-3)

(c) Define module coupling and explain different types of coupling in detail. (CO4, BL-2)