Student Exam No._____

GANPAT UNIVERSITY

B. Tech. SEMESTER -VI (Computer Engineering/Information Technology)

CBCS REGULAR EXAMINATION APRIL – JUNE 2017

2CE602/2IT602: SOFTWARE ENGINEERING

Time: 3 Hours **Total Marks: 60**

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Be precise and to the point in your answer.
4. Draw the diagrams / figures if necessary.
5. Write each section in a separate answer book.

Section – I

Que. – 1 **Answer the following.**

(A) List the different software myths and explain any two software myths in detail. **[5]**

(B) What is documentation? Explain embedded software and system software with example. **[5]**

OR

Que. – 1 **Answer the following.**

(A) Explain characteristics of SRS. **[5]**

(B) Define requirements engineering? Briefly explain any two requirements elicitation techniques. **[5]**

Que. – 2 **Answer the following.**

(A) What is the use of life cycle model? Explain prototype model. Also write advantages of prototype model. **[5]**

(B) Consider an election software project with the following functional units: Number of user inputs=10, Number of user outputs=20, Number of user enquiries = 35, Number of internal logical files =05, Number of external interface files=10. Assume all complexity adjustment factors are no influence and all weighting factors are average. Calculate function points (FP) for this project. **[5]**

OR

Que. – 2 **Answer the following.**

(A) Define Scheduling. Explain Work breakdown structure with a suitable example. **[5]**

(B) A project size is of 200 KLOC. Calculate effort, development time, average staff size and productivity for semi-detached mode. Write the name of appropriate mode for this project. **[5]**

Que. – 3 **Answer the following.**

(A) **Differentiate following:** **[5]**

1. Lines of code vs. Function point analysis.
2. Organic mode vs. Embedded mode.

(B) Explain Gantt chart with proper example. **[5]**

Section – II

Que. – 4 **Answer the following.**

(A) Write the types of requirements. Explain requirements review. **[5]**

(B) Why is it difficult to develop error free software? Explain software quality attributes. **[5]**

OR

Que. – 4 **Answer the following.**

(A) What is an error? Explain testing activities. **[5]**

(B) What is modularity? Explain any three types of module coupling. **[5]**

Que. – 5 **Answer the following.**

(A) Explain black box testing and white box testing. **[5]**

(B) Draw the control flow graph (CFG) for following program and find out cyclomatic complexity using McCabe's different methods. **[5]**

```
void main()
{
   int p=0,q=1,i,r,n;
   printf("Enter value of n");
   scanf("%d",&n);
   printf("%d %d",p,q);
   for(i=0;i<=n;i++)
   {
     r=p+q;;
     printf("%d",r);
     p=q;
     q=r;
   }
     getch();
}
```

OR

Que. – 5 **Answer the following.**

(A) Define pattern. Explain architectural patterns and design patterns. **[5]**

(B) Explain different views supported in UML. **[5]**

Que. – 6 **Answer the following.**

(A) Differentiate between structured analysis and structured design. Define DFD. Explain notations used to draw DFD. **[5]**

(B) Differentiate between testing and debugging. Explain debugging standards. **[5]**

END OF PAPER