

**Time: 3 hours**

**Max. Marks: 80**

- N.B. (1) Question one is Compulsory.  
(2) Attempt any 3 questions out of the remaining.  
(3) Assume suitable data if required.
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Q.1 Answer any 4

(a) Define following terms.

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- i. Project
- ii. Critical path
- iii. Earned value
- iv. Process
- v. Scope

(b) Compare Agile and traditional software development models

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(c) Explain cohesion and coupling.

05

(d) What is the golden rule for User interface Design

05

(e) Explain W5HH Principle.

05

Q.2 a) What is the importance of requirement analysis? Explain different Requirement engineering tasks.

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b) Identify any two Risks in online examination System. Perform risk assessment and prepare RMMM Plan for any one risk.

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Q.3 a) Prepare SRS for Railway Reservation System.

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b) Explain following testing strategies

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- i. Unit Testing
- ii. Integration Testing
- iii. Validation Testing
- iv. System Testing

Q.4 a) Draw CFG and calculate cyclomatic complexity for the given PDL

```
if(c1 or c2 )
```

```
do
```

```
  s1;
```

```
  s2;
```

```
while (c3)
```

```
else
```

```
  while(c4)  s3;
```

```
s4;
```

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b) Explain Software Design concepts.

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Q. 5 a) Explain with diagram CMM model

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b) Draw AON diagram and find the critical path. Find the total float time for each path and list down the critical and non-critical activities. Find the total duration of the project?

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Activity	Predecessor activity	Duration(days)
A	None	2
B	A	4
C	A	3
D	B	2
E	C	3
F	D	6
G	D	5
H	F,G,E	4

Q.6 Write Short notes on any 4.

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- i. FTR
- ii. PMBOK Knowledge Areas
- iii. Scrum Model
- iv. SCM Process
- v. Software Reengineering

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