SECTION A

Multiple Choice Questions: [30x1=30]

1. In computer operating system and utility programs are examples of
2. **System software**
3. Device drivers
4. Application software
5. Customized software
6. What is the main aim of software engineering?
7. Reliable software
8. Cost effective software
9. **Reliable and cost effective software**
10. None of the above
11. Identify the disadvantage of Spiral Model.
12. **Doesn’t work well for smaller projects**
13. High amount of risk analysis
14. Strong approval and documentation control
15. Additional Functionality can be added at a later date
16. Selection of a model is based on
17. Requirements
18. Development team & Users
19. Project type and associated risk
20. **All of the mentioned**
21. Which of the following models is not suitable for accommodating any changes?
22. Prototyping Model
23. RAD model
24. **Waterfall Model**
25. Spiral Model
26. In risk management process what makes a note of all possible risks that may occur in the project?
27. Manage
28. Monitor
29. **Identification**
30. Categorize
31. Which one of the following is not a step of requirement engineering?
32. Elicitation
33. **Design**
34. Analysis
35. Documentation
36. The process to gather the software requirements from client, analyze and document them is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
37. Feasibility Study
38. Requirement Gathering
39. **Requirement Engineering**
40. System Requirements Specification
41. What is MTTF?
42. Maximum time to failure
43. **Mean time to failure**
44. Minimum time to failure
45. None of the mentioned
46. Maintenance is classified into how many categories?
47. Two
48. Three
49. **Four**
50. five
51. What are the signs that a software project is in trouble?
52. The product scope is poorly defined.
53. Deadlines are unrealistic.
54. Total cost is unknown
55. **All of above**
56. Find out which phase is not available in SDLC?
57. Coding
58. Testing
59. Maintenance
60. **Abstraction**
61. Modifying the software to match changes in the ever changing environment is called \_\_\_\_\_\_\_\_\_\_.
62. **Adaptive maintenance**
63. Corrective maintenance
64. Perfective maintenance
65. Preventive maintenance
66. A UML diagram that facilitates requirements gathering and interacts between system and external users, is called as
67. Flowchart diagram
68. **Sequence diagram**
69. Use case diagram
70. Which of them is functional requirement?
71. Work flow
72. **Interoperability**
73. Flexibility
74. Disaster recovery
75. The degree of interaction between two modules is known as
    1. Inheritance
    2. Cohesion
    3. **Coupling**
    4. None of the above
76. How is reliability and failure intensity related to each other?
77. direct relation
78. **inverse relation**
79. no relation
80. none of the mentioned
81. Actual programming of software code is done during \_\_\_\_\_\_\_\_\_ step in SDLC.
82. Maintenance and Evaluation
83. Design
84. Analysis
85. **Development**
86. Which of the following is not a project manager’s activity?
87. project control
88. project management
89. project planning
90. **project design**
91. During system implementation which of the following activity is done?
    1. The system is tested with operational data
    2. Programmers are recruited and trained
    3. Both of them
    4. **None of them**
92. What are the various Testing Levels?
93. Unit Testing
94. System Testing
95. Integration Testing
96. **All of the mentioned**
97. Which of the following is an indirect measure of product?
98. Quality
99. Complexity
100. Reliability
101. **All of the above**
102. In size oriented metrics, metrics are developed based on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
103. number of Functions
104. number of user inputs
105. **Number of lines of code**
106. amount of memory usage
107. Which of the following is not included in failure costs?
108. Rework
109. Repair
110. failure mode analysis
111. **none of the mentioned**
112. Sequence diagram is \_\_\_\_ oriented.
     1. Class
     2. Activity
     3. **Time**
     4. All of them
113. Which of the following is considered as the component testing.
114. **Black box testing**
115. Grey box testing
116. White box testing
117. Both a and b
118. **Which phase is considered as software architecture phase?**
119. **Design**
120. Implementation
121. Development
122. Requirement gathering
123. What does Economic feasibility looks/determine at?
124. Looks at performance aspects of the system
125. Looks at acceptances of the system within the organization
126. Looks at the technical aspects of the system
127. **Determines whether the investment needed to implement the system will be recovered**
128. Which of the following does not affect the software quality and organizational performance?
129. **Market**
130. Product
131. Technology
132. People
133. Case tools are
134. A set of rules to be used during system analysis and design
135. A set of tools used by analysts
136. Needed for use case development
137. None of them
138. Special purpose software are
139. Application software
140. System software
141. Utility software
142. None of the above
143. What is the first step in the software development life cycle?
144. System Design
145. Coding
146. System Testing
147. Preliminary Investigation and Analysis
148. Which of the following life cycle model can be chosen if the development team has less experience on similar projects?
149. Spiral
150. Waterfall
151. Both of them
152. None of them
153. Which of the following is not project management goal?
154. Keeping overall costs within budget
155. Delivering the software to the customer at the agreed time
156. Maintaining a happy and well-functioning development team
157. Avoiding customer complaints
158. Project risk factor is considered in which model?
159. Spiral model
160. Waterfall model
161. Prototyping model
162. None of the above
163. A stakeholder is anyone who will purchase the completed software system under development.
164. True
165. False
166. \_\_\_\_\_\_ is the Disadvantage of XP.
167. Location
168. Cost
169. Teamwork
170. None of them
171. How is reliability and failure intensity related to each other?
172. direct relation
173. inverse relation
174. no relation
175. none of the mentioned
176. Which of the following is a disadvantage of OOD?
177. Easier maintenance
178. Objects may be understood as stand-alone entities
179. Objects are potentially reusable components
180. None of the mentioned
181. Which one of the following is a functional requirement?
182. Maintainability
183. Portability
184. Robustness
185. None of the mentioned
186. You are working as a project manager. Your Company wants to develop a project. You are also involved in planning team. What will be your first step in project planning?
187. Establish the objectives and scope of the product.
188. Determine the project constraints.
189. None of them
190. Both of them
191. Mean Time To Repair (MTTR) is the time needed to repair a failed hardware module.
192. True
193. False
194. CASE Tool stands for\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
195. Computer Aided Software Engineering
196. Component Aided Software Engineering
197. Constructive Aided Software Engineering
198. Computer Analysis Software Engineering
199. An entity in ER Model is a real world being, which has some properties called\_\_\_\_\_ .
200. Attributes
201. Relationship
202. Domain
203. None of the above
204. In Design phase, which is the primary area of concern?
205. Architecture
206. Data
207. Interface
208. All of the mentioned
209. What is the programming style of the object oriented conceptual model?
210. Invariant relationships
211. Algorithms
212. Classes and objects
213. Goals, often expressed in a predicate calculus.
214. RAD stands for
215. Relative Application Development
216. Rapid Application Development
217. Rapid Application Document
218. None of the mentioned
219. Which of these software engineering activities are not a part of software processes?
220. Software dependence
221. Software development
222. Software validation
223. Software specification
224. Agile Software Development is based on
225. Incremental Development
226. Iterative Development
227. Linear Development
228. Both Incremental and Iterative Development
229. Which of the following can be used to represent the architectural design of a piece of software?
230. Dynamic model
231. Functional model
232. Structural model
233. All of the above
234. Activity diagram, use case diagram, collaboration diagram and sequence diagram are considered as types of
235. non-behavioral diagrams
236. non-structural diagrams
237. structural diagrams
238. behavioral diagrams
239. Modifying the software to match changes in the ever changing environment is called \_\_\_\_\_\_\_\_\_\_.
240. Adaptive maintenance
241. Corrective maintenance
242. Perfective maintenance
243. Preventive maintenance
244. Which of the following testing technique can be used in order to determine the validation test?
245. Black box testing
246. Grey box testing
247. White box testing
248. Both a and b
249. Which of the following does not affect the software quality and organizational performance?
250. Market
251. Product
252. Technology
253. People
254. The longer a fault exists in software
255. the more tedious its removal becomes
256. the more costly it is to detect and correct
257. the less likely it is to be properly corrected
258. All of the mentioned
259. Which of the following are parameters involved in computing the total cost of a software development project?
260. Hardware and software costs
261. Effort costs
262. Travel and training costs
263. All of the mentioned
264. During system implementation which of the following activity is done?
     1. The system is tested with operational data
     2. Programmers are recruited and trained
     3. Both of them
     4. None of them
265. The degree of interaction between two modules is known as
     1. Inheritance
     2. Cohesion
     3. Coupling
     4. None of the above
266. A UML diagram that facilitates requirements gathering and interacts between system and external users, is called as
267. Flowchart diagram
268. Sequence diagram
269. Use case diagram
270. Data flow diagram
271. Case tools are
272. A set of rules to be used during system analysis and design
273. A set of tools used by analysts
274. Needed for use case development
275. None of them
276. Software engineering is defined as \_\_\_\_\_\_.
277. Instructions
278. Data structures
279. Documents
280. All of above
281. Which of the following models is not suitable for accommodating any changes?
282. Prototyping Model
283. RAD model
284. Waterfall Model
285. Spiral Model
286. What are attributes of good software?
287. Software maintainability
288. Software functionality
289. Software development
290. a and b
291. Find out which phase is not available in SDLC?
292. Coding
293. Testing
294. Maintenance
295. Abstraction
296. What is MTTF?
297. Maximum time to failure
298. Mean time to failure
299. Minimum time to failure
300. None of the mentioned
301. What are the signs that a software project is in trouble?
302. The product scope is poorly defined.
303. Deadlines are unrealistic.
304. Changes are managed poorly.
305. All of above
306. You are working as a project manager. Your Company wants to develop a project. You are also involved in planning team. What will be your first step in project planning?
307. Establish the objectives and scope of the product.
308. Determine the project constraints.
309. None of them
310. Both of tem
311. What does Economic feasibility looks/determine at?
312. Looks at performance aspects of the system
313. Looks at acceptances of the system within the organization
314. Looks at the technical aspects of the system
315. Determines whether the investment needed to implement the system will be recovered
316. Anti-virus software is an example of
317. system software
318. utility software
319. application software
320. None
321. In risk management process , identification process is followed by
322. Categorize
323. Manage
324. Monitor
325. None of them
326. What is the full form of CMM?
327. Capability Main Model
328. Capability Maturity Model
329. Clear Maturity Model
330. Capability Major Model
331. CMM consist of
332. Two level
333. Three level
334. Four level
335. Five level
336. What is the simplest model of software development?
337. Spiral model
338. Prototyping model
339. Agile model
340. Waterfall model
341. Identify the disadvantage of Spiral Model.
342. Doesn’t work well for smaller projects
343. High amount of risk analysis
344. Strong approval and documentation control
345. Additional Functionality can be added at a later date
346. Agile Software Development is based on
347. Incremental Development
348. Linear Development
349. Both a and b
350. None of them
351. Selection of a model is based on
352. Requirements
353. Development team
354. Users
355. All of the mentioned
356. In which model, a prototype of the end product is first developed?
357. Spiral model
358. Prototyping model
359. Agile model
360. Waterfall model
361. Pair programming is used in
362. Extreme Model
363. Object Oriented Model
364. Agile Model
365. Spiral Model
366. \_\_\_\_\_\_ is the Disadvantage of XP.
367. Location
368. Cost
369. Teamwork
370. None of them
371. How is reliability and failure intensity related to each other?
372. direct relation
373. inverse relation
374. no relation
375. Which of the following is not a project manager’s activity?
     1. project control
     2. project management
     3. project planning
     4. project design
376. Which one of the following is a functional requirement?
377. Maintainability
378. Portability
379. Robustness
380. None of the mentioned
381. . Which one of the following is a requirement that fits in a developer’s module?
382. Availability
383. Testability
384. Usability
385. Flexibility
386. What is the meaning of requirement elicitation in software engineering?
387. Gathering of requirement
388. Understanding of requirement
389. Getting the requirements from client
390. All of the above
391. User requirements are expressed as \_\_\_\_\_\_\_\_\_\_ in Extreme Programming.
392. implementation tasks
393. functionalities
394. stories
395. none of the mentioned
396. Functional requirements capture the intended behavior of the system.
397. True
398. False
399. Which of them is functional requirement?
400. Work flow
401. Interoperability
402. Flexibility
403. Disaster recovery
404. Non functionality should include
405. usability
406. technical details
407. Data processing
408. None of above
409. Which of these steps is includes in the Requirement engineering process
410. Requirement Gathering
411. Feasibility study
412. Validation
413. Both A & B
414. \_\_\_\_\_\_\_ is a requirement Elicitation process technique.
415. Requirement gathering
416. Discussion
417. Questionnaires
418. Documentation
419. User requirement includes
420. quick in response
421. Data flow
422. Both of them
423. None of them
424. In computer operating system and utility programs are examples of
     1. System software
     2. Device drivers
     3. Application software
     4. Customized software
425. What is the main aim of software engineering?
     1. Reliable software
     2. Cost effective software
     3. Reliable and cost effective software
     4. None of the above
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     2. Coding
     3. System Testing
     4. Preliminary Investigation and Analysis
427. Which of the following is not project management goal?
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     2. Avoiding customer complaints
     3. Delivering the software to the customer at the agreed time
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     3. Project type and associated risk
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     2. Object Oriented Model
     3. Agile Model
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     3. Linear Development
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     2. Design
     3. Analysis
     4. Documentation
436. The process to gather the software requirements from client, analyze and document them is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
     1. Feasibility Study
     2. Requirement Gathering
     3. Requirement Engineering
     4. System Requirements Specification
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     2. Portability
     3. Robustness
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     2. Deadlines are unrealistic.
     3. Total cost is unknown
     4. All of above
442. Find out which phase is not available in SDLC?
     1. Coding
     2. Testing
     3. Maintenance
     4. Abstraction
443. Which of them is functional requirement?
     1. Work flow
     2. Interoperability
     3. Flexibility
     4. Disaster recovery
444. Four types of change are encountered during the support phase. Which one of the following is not one that falls into such category?
445. Translation
446. Correction
447. Adaptation
448. Prevention
449. How is reliability and failure intensity related to each other?
     1. direct relation
     2. inverse relation
     3. no relation
     4. none of the mentioned
450. Actual programming of software code is done during \_\_\_\_\_\_\_\_\_ step in SDLC.
     1. Development
     2. Maintenance and Evaluation
     3. Design
     4. Analysis
451. Which of the following is not a project manager’s activity?
     1. project control
     2. project design
     3. project management
     4. project planning
452. Changes are made to the system to reduce the future system failure chances is called \_\_\_\_\_\_\_\_\_.
453. Preventive Maintenance
454. Adaptive Maintenance
455. Corrective Maintenance
456. Perfective Maintenance
457. **Which phase is considered as software architecture phase?**
     1. Design
     2. Implementation
     3. Development
     4. Requirement gathering
458. The aim of software engineering is to produce software that is
459. Fault-free
460. Delivered on time
461. Delivered within budget
462. All of these are the aims of software engineering.
463. What is the meaning of requirement elicitation in software engineering?
464. Gathering of requirement
465. Understanding of requirement
466. Getting the requirements from client
467. All of the above
468. Explain the software and it’s characteristics in detail.

**incremental model //**Explain **sequence model**

**Explain requirement elicitation and analysis**

1. Explain the software and it’s characteristics in detail.
2. Explain the concept **of incremental model with** example.
3. Explain pair programming. Enlist its advantage and disadvantages.
4. **Explain requirement elicitation and analysis** with example. Define software reuse. Explain its advantage and disadvantage?
5. Why is architecture design important in software engineering?
6. Explain **sequence model** with example.
7. Define software verification and validation. Explain black box testing.
8. **Differentiate between functional and non-functional requirements of software engineering requirements** with example.
9. What is requirement engineering? Explain functional and non-functional requirement.
10. What is feasibility study? Discuss the importance of schedule feasibility.
11. Why is user interface design important in software engineering?
12. Define software reliability with example.
13. Explain the metrics of software reliability.
14. Describe the methodologies of software reliability.
15. Explain software maintenance. Discuss its types and challenges in software maintenance.
16. Define software metrics. Explain the different types of metrics with example.
17. What is software quality assurance? What are the various quality concepts of SQA? Explain.
18. Define Software Engineering. Explain objective of the software engineering.
19. What is prototype model? Describe the activities of prototype model and also mention its drawbacks.
20. What is requirement engineering? Explain functional and nonfunctional requirement.
21. What is requirements elicitation and analysis? Discuss.
22. Describe the methodologies of software reliability.
23. Explain state diagram with example.
24. Explain software maintenance. Discuss the challenges in software maintenance.
25. What is Project Management? Discuss its importance.
26. **What are the different phases in software development life cycle? Explain with suitable example.**
27. Explain the concept of **incremental model** with example.
28. Compare and contrast between white box and block box testing?
29. What is software quality assurance? Explain with example.
30. Write short notes on
31. Component level design
32. Coding standard
33. Software quality metrics
34. Quality Management
35. Software implementation
36. Software metrics
37. Project Management
38. Coding standard
39. Software Design
40. User requirement
41. **Project Management tools**
42. Software reuse