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Question Paper Code : 10812

M.C.A. DEGREE EXAMINATIONS, APRIL/MAY 2023.

Elective

MC 4001 – SOFTWARE PROJECT MANAGEMENT

(Regulations – 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Who are stakeholders in health and social care?
2. State the importance of Triple Constraint in Project Management.
3. How will you measure the cost and benefits?
4. List the steps to manage risks effectively in an organization.
5. Draw the sample Gantt for a project.
6. Write the purpose of expert judgment in software estimation technique.
7. Define earned value analysis.
8. List any two change control procedures.
9. Write the challenges in building global teams.
10. List some tools for project management.

PART B — (5 × 13 = 65 marks)

11. (a) Consider the health insurance project, identify the scope and objective of the project and also identify the project infrastructure of the project planning.

Or

- (b) (i) Write the need of Software Quality and explain ISO9126 standard. (5)
- (ii) Why is Six Sigma important? List some crucial factors that decide your company's readiness for Six Sigma. Explain the Six Sigma Standard. (8)

12. (a) (i) Illustrate the cost-benefit analysis on an assessment of a project that involves delivering a product as its main goal. (9)
- (ii) How do you calculate Net Present Value (NPV) in SPM? (4)

Or

- (b) Which process model would you follow for developing software for each of the following applications? Mention the reasons behind your choice of a particular process model.

- (i) A new software product that would connect computers through wireless communication. Assume that your team has no previous experience in developing wireless communication software. (6)
- (ii) A new food delivery company software that would link various restaurants in the city. (7)

13. (a) Briefly discuss the software estimation techniques with an example.

Or

- (b) Consider the Project details as shown in the table.

Activity	Immediate Predecessor (s)	Duration (months)
A	-	5
B	-	4
C	-	3
D	A	2
E	B	10
F	B	6
G	C	7
H	D	4
I	E	3
J	H,I	12
K	F,G	4

Construct the CPM Network and determine the Critical Path and Project Completion Time.

14. (a) Draw the Boehm's risk engineering task breakdown and Explain the risk identification process.

Or

- (b) (i) How can you schedule the resources for allocation? Explain. (6)
(ii) How the project has progressed and changed through timeline in visualizing the process? Explain. (7)

15. (a) List the models for the execution of some effective management techniques for managing global teams. Illustrate any one model in detail.

Or

- (b) (i) How to manage the projects for the internet? (6)
(ii) Compare dot project and bunch pad software project management tool. (7)

PART C — (1 × 15 = 15 marks)

16. (a) Develop an online shopping application using a methodology for quantifying risks, or should address the risk in each situation. Can we have both quantitative and qualitative risk evaluation system in a place at the same time? Explain your answer with proper justification.

Or

- (b) Globalization has impacted project management profoundly and has only reinforced the trend towards adoption of the project mode of work organization. Explain the effects of the Internet on project management and its activities. Write down the challenges in building global teams in details.
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