



**JEPPIAAR**  
**ENGINEERING COLLEGE**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**MG6088**  
**SOFTWARE PROJECT**  
**MANAGEMENT**

**Question Bank**

**IV YEAR A & B / BATCH : 2015 -19**

## Vision of Institution

To build Jeppiaar Engineering College as an Institution of Academic Excellence in Technical education and Management education and to become a World Class University.

## Mission of Institution

<b>M1</b>	To excel in teaching and <b>learning, research and innovation</b> by promoting the principles of scientific analysis and creative thinking
<b>M2</b>	To participate in the production, <b>development and dissemination of knowledge</b> and interact with <b>national and international communities</b>
<b>M3</b>	To equip students with <b>values, ethics and life skills</b> needed to enrich their lives and enable them to meaningfully contribute to the <b>progress of society</b>
<b>M4</b>	To prepare students <b>for higher studies and lifelong learning</b> , enrich them with the <b>practical and entrepreneurial skills</b> necessary to excel as future professionals and contribute to <b>Nation's economy</b>

## Program Outcomes (POs)

<b>PO1</b>	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
<b>PO2</b>	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
<b>PO3</b>	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations
<b>PO4</b>	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
<b>PO5</b>	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
<b>PO6</b>	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

<b>PO7</b>	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
<b>PO8</b>	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
<b>PO9</b>	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
<b>PO10</b>	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
<b>PO11</b>	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
<b>PO12</b>	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### Vision of Department

To emerge as a globally prominent department, developing ethical computer professionals, innovators and entrepreneurs with academic excellence through quality education and research.

### Mission of Department

<b>M1</b>	To create <b>computer professionals</b> with an ability to identify and <b>formulate the engineering problems</b> and also to provide <b>innovative solutions</b> through <b>effective teaching learning process</b> .
<b>M2</b>	To <b>strengthen the core-competence</b> in computer science and engineering and to create an ability to <b>interact</b> effectively with industries.
<b>M3</b>	To produce engineers with good professional skills, <b>ethical values</b> and life skills for the <b>betterment of the society</b> .
<b>M4</b>	To encourage students towards <b>continuous and higher level learning</b> on technological advancements and provide a platform for <b>employment and self-employment</b> .

## Program Educational Objectives (PEOs)

<b>PEO1</b>	<b>To address the real time complex engineering problems using innovative approach with strong core computing skills.</b>
<b>PEO2</b>	<b>To apply core-analytical knowledge and appropriate techniques and provide solutions to real time challenges of national and global society</b>
<b>PEO3</b>	<b>Apply ethical knowledge for professional excellence and leadership for the betterment of the society.</b>
<b>PEO4</b>	<b>Develop life-long learning skills needed for better employment and entrepreneurship</b>

## Program Specific Outcomes (PSOs)

Students will be able to

<b>PSO1</b>	An ability to understand the core concepts of computer science and engineering and to enrich problem solving skills to analyze, design and implement software and hardware based systems of varying complexity.
<b>PSO2</b>	To interpret real-time problems with analytical skills and to arrive at cost effective and optimal solution using advanced tools and techniques.
<b>PSO3</b>	An understanding of social awareness and professional ethics with practical proficiency in the broad area of programming concepts by lifelong learning to inculcate employment and entrepreneurship skills.

### **BLOOM TAXANOMY LEVELS(BTL)**

- BTL1: Remembering**
- BTL2: Understanding**
- BTL3: Applying**
- BTL4: Analyzing**
- BTL5: Evaluating**
- BTL6: Creating**

## **SYLLABUS**

### **UNIT I PROJECT EVALUATION AND PROJECT PLANNING 9**

Importance of Software Project Management – Activities Methodologies – Categorization of Software Projects – Setting objectives – Management Principles – Management Control – Project portfolio Management – Cost-benefit evaluation technology – Risk evaluation – Strategic program Management – Stepwise Project Planning.

### **UNIT II PROJECT LIFE CYCLE AND EFFORT ESTIMATION 9**

Software process and Process Models – Choice of Process models - mental delivery – Rapid Application development – Agile methods – Extreme Programming – SCRUM – Managing interactive processes – Basics of Software estimation – Effort and Cost estimation techniques – COSMIC Full function points - COCOMO II A Parametric Productivity Model - Staffing Pattern.

### **UNIT III ACTIVITY PLANNING AND RISK MANAGEMENT 9**

Objectives of Activity planning – Project schedules – Activities – Sequencing and scheduling – Network Planning models – Forward Pass & Backward Pass techniques – Critical path (CRM) method– Risk identification – Assessment – Monitoring – PERT technique – Monte Carlo simulation –Resource Allocation – Creation of critical patterns – Cost schedules.

### **UNIT IV PROJECT MANAGEMENT AND CONTROL 9**

Framework for Management and control – Collection of data Project termination – Visualizing progress – Cost monitoring – Earned Value Analysis- Project tracking – Change control- Software Configuration Management – Managing contracts – Contract Management.

### **UNIT V STAFFING IN SOFTWARE PROJECTS 9**

Managing people – Organizational behavior – Best methods of staff selection – Motivation – The Oldham-Hackman job characteristic model – Ethical and Programmed concerns – Working in teams – Decision making – Team structures – Virtual teams – Communications genres – Communication plans.

**TEXT BOOK:**

1. Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.

**REFERENCES:**

1. Robert K. Wysocki “Effective Software Project Management” – Wiley Publication,2011.
2. Walker Royce: “Software Project Management”- Addison-Wesley, 1998.
3. Gopaldaswamy Ramesh, “Managing Global Software Projects” – McGraw Hill Education (India), Fourteenth Reprint 2013.

***Course Outcomes (COs)***

C411.1	<b>Evaluate</b> and decide the software project management.
C411.2	<b>Determine and classify</b> the project life cycle and <b>estimate</b> the effort of Agile methods.
C411.3	<b>Formulate</b> the project activity plan and project risk management
C411.4	<b>Organize</b> and <b>manage</b> the project contracts.
C411.5	<b>Establishing</b> the staffing pattern and Document the organizational behavior.

## INDEX

<b>Unit #</b>	<b>Ref. Book</b>	<b>Page Numbers</b>
<b>Unit 1</b>	Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.	<b>Page 8 -17</b>
<b>Unit 2</b>	Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.	<b>Page 18 -26</b>
<b>Unit 3</b>	Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.	<b>Page 27 -35</b>
<b>Unit 4</b>	Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.	<b>Page 36 -43</b>
<b>Unit 5</b>	Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management – Fifth Edition, Tata McGraw Hill, New Delhi, 2012.	<b>Page 44 -52</b>

## UNIT -1

### PROJECT EVALUATION AND PROJECT PLANNING

#### SYLLABUS:

Importance of Software Project Management – Activities Methodologies – Categorization of Software Projects – Setting objectives – Management Principles – Management Control – Project portfolio Management – Cost-benefit evaluation technology – Risk evaluation – Strategic program Management – Stepwise Project Planning.

#### COURSE OBJECTIVE:

To outline the need for Software Project Management.

#### PART – A

S.NO	2 Mark Questions	CO	Blooms Level
1	<b>What is software project Management? (NOV -2009)(JUNE -2014)(JUNE-2017)</b> The software project management is the art and science of planning and leading software projects. It is a sub discipline of project management in which software project are planned monitored and controlled.	C411.1	BTL1
2	<b>Define project?</b> <input type="checkbox"/> Project is defined as <input type="checkbox"/> A specific plan or design <input type="checkbox"/> A planned under taking <input type="checkbox"/> A large under taking	C411.1	BTL1
3	<b>Define process. (NOV -2012)</b> A software process provides the framework from which a comprehensive plan for software development can be established.	C411.1	BTL1
4	<b>Which factor is decided the success of project (MAY -2012)</b> Clear & agreed objectives Planning Management control Repeated reappraisal Communication Committed & effective team.	C411.1	BTL4



5	<p><b>Write the elements of product process.(NOV -2010)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Defined by the life cycle used.</li> <li><input type="checkbox"/> Defined by the American society of quality(ASQ),</li> <li><input type="checkbox"/> Certified Software Quality Engineer(CSQE)</li> </ul>	C411.1	BTL1
6	<p><b>What are the characteristics which makes software project s different from other project? (MAY -2012)( MAY -2015)</b></p> <p><b>Invisibility:</b> When a physical artifact such as a bridge or road is being constructed the progress being made can actually be seen. With software, progress is not immediately visible. <b>Complexity:</b> Per dollar, pound or euro spent, software products contain more complexity than other engineered artifacts.</p> <p><b>Flexibility:</b> The ease with which software can be changed is usually seen as one of its strengths. However this means that where the software system interfaces with a physical or organizational system, it is expected that, where necessary, the software will change to accommodate the other components rather than vice versa. This means the software systems are likely to be subject to a high degree of change</p>	C411.1	BTL4
7	<p><b>Mention the characteristics of software projects(NOV -2012)( NOV -2013)(Dec – 2014)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Non-routine tasks are involved</li> <li><input type="checkbox"/> Planning is required</li> <li><input type="checkbox"/> Specific objectives are to be met or a specified product is to be created</li> <li><input type="checkbox"/> The project has a pre-determined time span</li> <li><input type="checkbox"/> Work is carried out for some one other than yourself</li> <li><input type="checkbox"/> Work involves several specialisms</li> <li><input type="checkbox"/> Work is carried out in several phases</li> <li><input type="checkbox"/> The resources that are available for use on the project are constrained.</li> <li><input type="checkbox"/> The project is large or complex</li> </ul>	C411.1	BTL1
8	<p><b>Write short notes about contract management? (May – 2013).</b></p> <p><b>Contract administration</b> is the management of contracts made with customers, vendors, partners, or employees. The client organization will often appoint a project manager to supervise the contract</p>	C411.1	BTL1
9	<p><b>What are the activities covered by SPM? (MAY -2009)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Feasibility study</li> <li><input type="checkbox"/> Planning</li> </ul> <p>Project execution</p>	C411.1	BTL1
10	<p><b>What are the different stages in classic project life cycle? (MAY -2010)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Requirements analysis</li> <li><input type="checkbox"/> Specification</li> <li><input type="checkbox"/> Design</li> <li><input type="checkbox"/> Coding</li> <li><input type="checkbox"/> Verification &amp; Validation</li> <li><input type="checkbox"/> Implementation installation</li> <li><input type="checkbox"/> Maintenance &amp; Support</li> </ul>	C411.1	BTL1

11	<p><b>What are the activities within stepwise planning?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Select project</li> <li><input type="checkbox"/> Identify projects scope and objectives</li> <li><input type="checkbox"/> Identify project infrastructure</li> <li><input type="checkbox"/> Analyse project characteristics</li> <li><input type="checkbox"/> Identify project products and activities</li> <li><input type="checkbox"/> Estimate effort for each activity</li> <li><input type="checkbox"/> Identify activity risks</li> <li><input type="checkbox"/> Allocate resources</li> <li><input type="checkbox"/> Review/publicize</li> <li><input type="checkbox"/> Execute plan</li> <li><input type="checkbox"/> Lower levels of planning</li> </ul>	C411.1	BTL1
12	<p><b>What are the things contain product description? (NOV -2012)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The name/identity of the product</li> <li><input type="checkbox"/> The purpose of the product</li> <li><input type="checkbox"/> The derivation of the product</li> <li><input type="checkbox"/> The composition of the product</li> <li><input type="checkbox"/> The relevant standards</li> <li><input type="checkbox"/> The quality criteria that should apply to it</li> </ul>	C411.1	BTL1
13	<p><b>What is PBS?. Show hierarchial diagram of a sample PBS. (MAY -2012)</b></p> <pre> graph TD     Computer[Computer] --&gt; MainUnit[Main unit]     Computer --&gt; Monitor[Monitor]     Computer --&gt; Mouse[Mouse]     Computer --&gt; Keyboard[Keyboard]     MainUnit --&gt; Housing1[Housing]     MainUnit --&gt; HDD[Hard disk drive]     MainUnit --&gt; VideoCard[Video card]     MainUnit --&gt; Motherboard[Motherboard]     Motherboard --&gt; CPU[Central Processing Unit]     Motherboard --&gt; Memory[Memory]     Motherboard --&gt; Dots1[...]     Monitor --&gt; Housing2[Housing]     Monitor --&gt; CRT[Cathode Ray Tube]     Monitor --&gt; Electronics1[Electronics]     Mouse --&gt; Body[Body]     Mouse --&gt; Ball[Ball]     Mouse --&gt; Electronics2[Electronics]     Keyboard --&gt; Dots2[...]   </pre> <p><b>A product breakdown structure (PBS) is a tool for analysing, documenting and communicating the outcomes of a project, and forms part of the product based planning technique.</b></p>	C411.1	BTL1

14	<p><b>Define milestones.</b> The milestones represent the completion of important stages of the project of which they would want to take particular note</p>	C411.1	BTL1
15	<p><b>What is PRINCE 2?</b> A PRINCE 2 is asset of project management standards that were originally Sponsored by the central computing and telecommunications agency for use on British government</p>	C411.1	BTL1
16	<p><b>List the characteristics of the products?</b> Invisibility Complexity Flexibility</p>	C411.1	BTL1
17	<p><b>What are the two different stages of Design?</b> <input type="checkbox"/> External or User Design <input type="checkbox"/> Physical Design</p>	C411.1	BTL1
18	<p><b>Write the standards for software process?</b> <input type="checkbox"/> BS 6079 <input type="checkbox"/> PRINCE 2</p>	C411.1	BTL1
19	<p><b>List some problems with software projects (May – 2013).</b> <input type="checkbox"/> People-related problems <input type="checkbox"/> Process-related problems <input type="checkbox"/> Product-related problems <input type="checkbox"/> Technology-related problems</p>	C411.1	BTL4
20	<p><b>Distinguish between objectives &amp; products(Nov -2013)(JUNE-2014)</b> A project might be to create a product the details of which have been specified by the client. The client has the responsibility for justifying the product. On the other hand, the project may be required to meet certain objectives. There could be several ways of achieving these objectives. A new information system might be implemented to improve some service to users inside or outside an organization. The level of service that is the target would be the subject of an agreement rather than the characteristics of a particular information system.</p>	C411.1	BTL5
21	<p><b>Difference between contract management &amp; technical management(Dec – 2014) advantages of contract management</b> <b>contract management</b> The contract is simply an elaborated agreement between two or more parties. One or more parties may provide products in return to something provided by other parties (client). • Standardized Processes and Procedures</p>	C411.1	BTL5

	<ul style="list-style-type: none"> <li>• Spend Visibility</li> <li>• Improved Compliance</li> <li>• Solid Foundation for Spend and Performance Analysis</li> <li>• Evergreen Contract Elimination</li> <li>• Rebate Management</li> </ul> <p><b>Technical Project Management</b></p> <ul style="list-style-type: none"> <li>• You'll discuss the value of planning, scheduling and how to manage scope.</li> <li>• Use tools and techniques to establish a sound estimating process.</li> </ul> <ul style="list-style-type: none"> <li>• Find out how to keep projects on track and evaluate project performance.</li> <li>• And participate in communications exercises to help successfully lead project team.</li> </ul>		
22	<p><b>Who are Project Stakeholders? (May-2015)</b></p> <p><b>Project Stakeholder</b> is a person, group of people or an organization that has any kind of interest in your project or is affected by its outcome either directly or indirectly. This may include your project team members, project sponsors, your organization members and people outside to your organization as well.</p> <p>Project stakeholders can be grouped into two categories:</p> <ol style="list-style-type: none"> <li>1. Internal Stakeholders</li> <li>2. External Stakeholders</li> </ol>	C411.1	BTL1
23	<p><b>Mention some of the major activities covered by software project management. (May-2016)</b></p> <p>Major activities covered by software project management are</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Project Planning</li> <li><input type="checkbox"/> Scope Management</li> <li><input type="checkbox"/> Project Estimation</li> </ul>	C411.1	BTL4
24	<p><b>Highlight the levels of decision making and information system. (May-2016)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Strategic management</li> <li><input type="checkbox"/> Tactical management</li> <li><input type="checkbox"/> Operational management</li> </ul>	C411.1	BTL4
25	<p><b>How to review and publicize plan?</b></p> <ul style="list-style-type: none"> <li>• Review quality aspects of project plan</li> <li>• Document plans and obtain agreement.</li> </ul>	C411.1	BTL5
26	<p><b>What are the problems with software project from manager's point of view?(May/Jun2013)</b></p> <ul style="list-style-type: none"> <li>• Poor estimates and plans.</li> <li>• Lack of quality standards and measures.</li> <li>• Lack of techniques to make progress visible.</li> </ul>	C411.1	BTL5

	<ul style="list-style-type: none"> <li>• Lack of guidance about organizational Decisions.</li> <li>• Poor role definition.</li> <li>• Incorrect success criteria</li> </ul>		
27	<p><b>What are the steps involved in step wise planning?</b></p> <ul style="list-style-type: none"> <li>• Identify project scope and objectives.</li> <li>• Identify project infrastructure.</li> <li>• Analyze project characteristics.</li> <li>• Identify project products and activities.</li> <li>• Estimate effort for each activity.</li> <li>• Identify activity risks.</li> <li>• Allocate resources.</li> <li>• Review / publicize plan</li> <li>• Execute plan/ lower levels of planning.</li> </ul>	C411.1	BTL5
28	<p><b>How to identify project infrastructure?</b></p> <ul style="list-style-type: none"> <li>• Establish relationship between project and strategic planning.</li> <li>• Identify installation standards and procedures.</li> <li>• Identify project team organization.</li> </ul>	C411.1	BTL4
29	<p><b>How to manage activity risks?</b></p> <ul style="list-style-type: none"> <li>• Identify and quantify activity-based risks.</li> <li>• Plan risk reduction and contingency measures where appropriate</li> <li>• Adjust plans and estimates to take account of risks.</li> </ul>	C411.1	BTL4
30	<p><b>Define project stake holders.</b> Stakeholders are the people involved in or affected by the project activities Stake holders' power Integrate all expectations of several people.</p>	C411.1	BTL1
31	<p><b>Why organize an activity or job as a project?</b> It allows you to better structure and organize the tasks that need to be performed Well-developed approaches and tools are available for managing projects Easy-to-use software is available for scheduling and budgeting projects</p>	C411.1	BTL5
32	<p><b>What are the Technical Project Planning Methodologies Identify different approaches to planning technical projects:</b> rolling wave Planning...stage gate process...critical chain project management Common construction project life cycle Common pharmaceutical project life cycle</p>	C411.1	BTL5
33	<p><b>What are the three successive processes that bring a new system?(Nov/Dec2012)</b> The feasibility study- Evaluate the cost of the software development against the</p>	C411.1	BTL5

	Software Engineering Planning- outline the structure of the project Project Execution- Product Implementation Product implementation activities		
34	<b>Define Feasibility Study.</b> It is based on an outline design of system requirements in terms of Input, Processes, Output, Fields, Programs, and Procedures. This can be quantified in terms of volumes of data, trends, frequency of updating, etc.	C411.1	BTL5
35	<b>What is meant by planning?</b> Planning as a process involves the determination of future course of action, that is, why an action, what action, how to take action, and when to take action. These why, what, how, and when are related with different aspects of planning process.	C411.1	BTL5
36	<b>What is meant by qualification testing?</b> The system, including the software components, has to be tested carefully to ensure that all the requirements have been fulfilled.	C411.1	BTL5
37	<b>Differentiate Objectives Vs products.</b> Objectives are goals or aims which the management wishes the organization to achieve. These are the end points or pole-star towards which all business activities like organizing, staffing, directing and controlling are directed. A project might be to create a product, the details of which have been specified by the client. The client has the responsibility for justifying the product.	C411.1	BTL5
38	<b>What is management?</b> Management can be defined as all activities and tasks undertaken by one or more Persons for the purpose of planning and controlling the activities of others in order to achieve objectives or complete an activity that could not be achieved by others acting independently.	C411.1	BTL5
39	<b>What are the problems with software project from manager's point of view?</b> Poor estimates and plans. <ul style="list-style-type: none"> <li>• Lack of quality standards and measures</li> <li>• Lack of techniques to make progress visible</li> <li>• Lack of guidance about organizational Decisions.</li> <li>• Poor role definition. 6.Incorrect success criteria</li> </ul>	C411.1	BTL5
40	<b>What are the problems with software project from student's point of view?</b> Inadequate specification of work. Lack of knowledge of application area. Lack of standards. Narrow scope of technical expertise.	C411.1	BTL5
41	<b>How to identify project infrastructure?</b> Establish relationship between project and strategic planning. Identify installation standards and procedures. Identify project team organization.	C411.1	BTL4
42	<b>What is system and sub system?</b> The term system is defined as "a set of interrelated parts". A system will normally be part of a larger system and will itself compare sub systems.	C411.1	BTL5
43	<b>What is project execution?</b> This is the final stage of project, which meant to put the built system to work	C411.1	BTL5

	or operate under suitable environment.		
44	<p><b>What is planning?</b>  Ans: It is an act of formulating a program for a definite course of action “the planning was more fun than the trip itself”. Planning in short is defined as “deciding what is to be done”.</p>	C411.1	BTL5
45	<p><b>What do you mean by the characteristics of invisibility, complexity and complexity of Software project management?</b>  Invisibility:  The outputs are not seen / visible physically during the software progress.  Complexity:  Usually software products contain more complexity than other engineered artifacts.  Flexibility:  Software project has the characteristics of changing its code at any time and can produce the expected result.</p>	C411.1	BTL5
46	<p><b>What is the difference between Information systems and embedded systems?</b>  <b>Information systems:-</b>  Information System includes databases that include useful "information". Information Systems is the discipline concerned with the development, use, application and influence of information systems. An information system, following a definition of Langefors, is a technologically implemented medium for recording, storing, and disseminating linguistic expressions, as well as for drawing conclusions from such expressions. The technology used for implementing information systems by no means has to be computer technology. A notebook in which one lists certain items of interest is, according to that definition, an information system. Likewise, there are computer applications that do not comply with this definition of information systems. Embedded systems are an example. <b>Embedded Systems:-</b> Embedded systems include small computers that make things work, such as the computer in your radio, television or the computer that controls your vehicle engine. An embedded system is a computer system that is part of a larger system.  Examples:  Washing machine  Car engine control  Mobile phone</p>	C411.1	BTL5
47	<p><b>What is cost-benefit analysis ?(Nov/Dec 2017)</b>  <b>Cost–benefit analysis (CBA)</b>, sometimes called <b>benefit costs analysis (BCA)</b>, is a systematic approach to estimating the strengths and weaknesses of alternatives (for example in transactions, activities, functional business requirements); it is used to determine options that provide the best approach to achieve benefits while preserving savings.</p>	C411.1	BTL5
48	<p><b>Outline the need for risk evaluation. (Nov/Dec 2017)</b>  Risk assessment is a term used to describe the overall process or method where you:</p>	C411.1	BTL5

	<ul style="list-style-type: none"> <li>Identify hazards and risk factors that have the potential to cause harm (hazard identification).</li> <li>Analyze and evaluate the risk associated with that hazard (risk analysis, and risk evaluation).</li> <li>Determine appropriate ways to eliminate the hazard, or control the risk when the hazard cannot be eliminated (risk control).</li> </ul>		
49	<p><b>What is Management software ?</b></p> <p>Management software is that which is designed to streamline and automate management processes in order to lessen the complexity of large projects and tasks, as well as encourage or facilitate team cooperation, collaboration and proper project reporting.</p>	C411.1	BTL5
50	<p><b>What is a software ?</b></p> <p>Computer software, or simply software, is a collection of data or computer instructions that tell the computer how to work. This is in contrast to physical hardware, from which the system is built and actually performs the work</p>	C411.1	BTL5

## PART B

S.N O	16 Mark Questions	CO	Bloom 's Level
1	<p>Explain the various activities covered by software project management. (8)(Page.No:4-6) (May - 2013) , (8) (May - 2012) .(Nov -2012)(8), (8) (Nov – 2013)(Dec-2014) (JUNE-2017) (Nov/Dec 2017)</p>	C411.1	BTL2
2	<p>Give an outline of step wise planning activities for a project with neat diagram. (16) (Page.No:47-64) (May - 2013) .(Nov -2012)(16) (Nov -2011)(16), (16) (Nov – 2013)(JUNE-2014)(Dec-2014) (Nov/Dec 2017)</p>	C411.1	BTL6
3	<p>Describe how cost- benefits evaluation techniques &amp; its methods with examples. (Page.No:27-32) (16) (May - 2013) (Nov -2011)(16) (16) (Nov – 2013) (JUNE-2017)</p>	C411.1	BTL5
4	<p>Discuss the cash flows techniques in project development. (Page.No:25-26) (8) (May - 2013) (May - 2012)</p>	C411.1	BTL2



5	Identify the data that you would collect to ensure that during execution of project things are going according to plan. <b>(Page.No:53-54) (Nov -2011)(8)</b>	C411.1	BTL2
6	Explain the various activities to be performed in “Analyzing the project characteristics” <b>(Page.No:55-56) (May - 2012) (JUNE-2017)</b>	C411.1	BTL2
7	Illustrate few problem associated with software projects. <b>(Page.No:33-35) (Nov - 2012) (8)</b>	C411.1	BTL5
8	Explain contract management. <b>(8)(Page.No:4) (Nov – 2013)</b>	C411.1	BTL2
9	Explain the use of Gantt chart in allocation of resources. <b>(Page.No:64) (8) (Dec-2014)</b>	C411.1	BTL2
10	What is risk evaluation? Explain the use of decision trees in risk evaluation. <b>(Page.No:33-35)(8) (Dec 2015)</b>	C411.1	BTL6
11	Discuss the cash flows techniques with different cost- benefit evaluation techniques. <b>(Page.No:29-32) (Nov -2012)(16)</b>	C411.1	BTL2
13	Explain portfolio management of software projects. Discuss with examples. <b>(Page.No:24-25) (16) (May-2016)</b>	C411.1	BTL3
14	What is Management? Explain in detail, management control <b>(Page.No:4)</b>	C411.1	BTL3
15	Draw product breakdown structure and product flow diagram for online ticket reservation Refer notes	C411.1	BTL2

## UNIT – II

### PROJECT LIFE CYCLE AND EFFORT ESTIMATION

#### SYLLABUS:

Software process and Process Models – Choice of Process models - mental delivery – Rapid Application development – Agile methods – Extreme Programming – SCRUM – Managing interactive processes – Basics of Software estimation – Effort and Cost estimation techniques – COSMIC Full function points - COCOMO II A Parametric Productivity Model - Staffing Pattern.

#### COURSE OBJECTIVE:

To highlight different techniques for software cost estimation

#### PART- A

S.NO	2 Mark Questions	CO	Blooms Level
1	<b>What is programme?</b> A programme is a collection of projects that all contributes to the same overall organization goals.	C411.2	BTL1
2	<b>What are the types of management in strategic assessment?</b> a. Typical issues and questions to be considered during strategic assessment. b. Portifollio management.	C411.2	BTL1
3	<b>How the cost-benefit analysis can be done?</b> a. Whether the estimated costs are executed by the estimated income. b. And, by other benefits	C411.2	BTL1
4	<b>What are the steps in cost-benefit analysis comprises? (NOV -2012) (Nov - 2013)</b> <input type="checkbox"/> Identifying and estimating all of the costs and benefits of carrying out the project. <input type="checkbox"/> Expressing these costs and benefits in common units.	C411.2	BTL1
5	<b>When the net present value calculation for a project? (NOV -2012)</b>	C411.2	BTL1

	<p>The Net Present Value (NPV) of a Capital Budgeting project indicates the expected impact of the project on the value of the firm. Projects with a positive NPV are expected to increase the value of the firm. Thus, the NPV decision rule specifies that all <i>independent</i> projects with a positive NPV should be accepted. When choosing among <i>mutually exclusive</i> projects, the project with the largest (positive) NPV should be selected.</p> <p>The NPV is calculated as the present value of the project's cash inflows minus the present value of the project's cash outflows.</p>		
6	<p><b>What are the types of cost?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Development costs-&gt;Includes salary and other employment cost of staff involved.</li> <li><input type="checkbox"/> Setup costs-&gt;Includes the cost of implementation of system.</li> <li><input type="checkbox"/> Operational costs-&gt;Cost require to operate system.</li> </ul>	C411.2	BTL1
7	<p><b>What are the categories of benefits? (MAY -2010)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Direct benefits: Directly obtained benefits by making use of operating the system.</li> <li><input type="checkbox"/> Assessable indirect benefits: These benefits are obtained due to update of current system.</li> <li><input type="checkbox"/> Intangible benefits: These benefits are longer term.</li> </ul>	C411.2	BTL1
8	<p><b>How do you find the present value of future cash flows? (NOV -2012)</b></p> <p><b>Present value</b>, also known as <b>present discounted value</b>, is a future amount of money that has been discounted to reflect its current value, as if it existed today</p> <p>Present value calculations, and similarly future value calculations, are used to evaluate loans, mortgages, annuities, sinking funds, perpetuities, and more. These calculations are used to make comparisons between cash flows that don't occur at simultaneous times</p>	C411.2	BTL1
9	<p><b>what is the significance of project risk matrix give ex(MAY -2012)</b></p> <p>A <b>Risk Matrix</b> is a matrix that is used during Risk Assessment to define the various levels of risk as the <b>product</b> of the harm probability categories and harm severity categories. This is a simple mechanism to increase visibility of risks and assist management decision making. For example, the harm severity can be categorized as:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Catastrophic - Multiple Deaths</li> <li><input type="checkbox"/> Critical - One Death or Multiple Severe Injuries</li> <li><input type="checkbox"/> Marginal - One Severe Injury or Multiple Minor Injuries</li> <li><input type="checkbox"/> Negligible - One Minor Injury</li> </ul>	C411.2	BTL4
10	<p><b>What do you meant by cash flow forecasting? (MAY -2009)</b></p> <p>The cash flow forecasting estimates the overall costs and benefits of a product with respect to time.</p>	C411.2	BTL1
11	<p><b>How the money is spent through development stages?</b></p>	C411.2	BTL6

	<input type="checkbox"/> Staff wages. <input type="checkbox"/> Borrowing money from bank. <input type="checkbox"/> Paying interest to bank. <input type="checkbox"/> Paying of salaries. <input type="checkbox"/> Amount spent for installation, buying hardware and software.		
12	<b>What are the ways the income is expected?</b> Payment on completion. Stages payment	C411.2	BTL1
13	<b>What do you mean by cost-evaluation techniques?</b> <input type="checkbox"/> The timing of the costs and benefits. <input type="checkbox"/> The benefits relative to the size of the investment.	C411.2	BTL1
14	<b>What are the common methods used in cash flow forecasts?</b> <input type="checkbox"/> Net profit <input type="checkbox"/> Payback period <input type="checkbox"/> Return on investment <input type="checkbox"/> Net present value <input type="checkbox"/> Internal rate of return.	C411.2	BTL6
15	<b>What do you mean by net profit? (NOV -2010)</b> The net profit of a project is the difference between the total costs and the total income over the life of the project. Net profit= Total cost- Total income	C411.2	BTL1
16	<b>What do you mean by payback period?(Dec – 2014)</b> Payback period as the time taken to break even or payback to the initial investment.	C411.2	BTL1
17	<b>What do you mean by return on investment? (MAY– 2012)</b> The return on investment also known as the accounting rate of return (ARR) provides a way of comparing the net profitability to the investment required. $\text{ROI} = \frac{\text{Average annual profit}}{\text{Total investment}} \times 100$ $\text{Average annual profit} = \frac{\text{Net profit}}{\text{Total no. of year}}$	C411.2	BTL1
18	<b>What do you mean by internal rate of return? (NOV – 2011)</b> The internal rate of return (IRR) attempts to provide a profitability measure as a percentage return that is directly comparable with interest rates.	C411.2	BTL1
19	<b>What is RISK management? (MAY– 2012)</b> Risk management is the procedure that explains the process of managing risk through analysis. This procedure does not provide solutions to perceived risks.	C411.2	BTL4
20	<b>What do you mean by net present value?</b>	C411.2	BTL1

	The net present value is calculation of project evaluation technique. Present value= value of year t / (1+r) <sup>t</sup>		
21	<b>What do you meant by discount rate?</b> The discount rate means expressed as a decimal value. Discount rate=1 / (1+r) <sup>t</sup>	C411.2	BTL1
22	<b>What do you meant by discounted cash flow?(Dec-2014)</b> Net present value and internal rate of return (IRR) are collectively known as discounted cash flow	C411.2	BTL1
23	<b>What do you meant by accounting rate of return?</b> The accounting rate of return provides a way of comparing the net profitability to the required.	C411.2	BTL1
24	<b>What do you meant by risk evaluation? (NOV -2009)</b> The risk evaluation is means to decide whether to proceed with the project or job and whether the project is meeting its objectives	C411.2	BTL1
25	<b>Differentiate between strategic assessment &amp; Technical assessment (May -2013) Strategic Assessment</b> Individual projects needs to be seen as components of a programme and should be evaluated and managed as such. A programme, in this context, is a collection of projects that contribute to the same overall organizational goals. <b>Technical Assessment</b> Technical assessment of a proposed system consists of evaluating the required functionality against the hardware and software available. Where an organization has a strategic information systems plan, this is likely to place limitations on the nature of a solutions that might be considered.	C411.2	BTL4
26	<b>What is the use of decision tree in risk evaluation (May - 2013)</b> The analysis of decision tree consists of evaluating the expected benefit of taking each path from a decision point. The expected value of each path is the sum of the value of each possible outcome multiplied by its probability of occurrence.	C411.2	BTL6
27	<b>What is the concept of strategic programme? (Nov -2013)</b> <input type="checkbox"/> Strategic planning and decision processes should end with objectives and a roadmap of ways to achieve them. <input type="checkbox"/> The goal of strategic planning mechanisms like formal planning is to increase specificity in business operation, especially when long-term and high-stake activities are involved.	C411.2	BTL1
28	<b>What is meant by cost flow forecasting? (JUNE-2014)</b> A cash flow forecast is document that shows predicted future cash inflows and outflows of a business over a given period of time	C411.2	BTL1
29	<b>Give some units for measuring the size of the software.</b>	C411.2	BTL4

	<p><b>(JUNE-2014)</b>  Number of Lines of Code (NLOC)  – number of delivered source instructions (NDSI)  – number of thousands of delivered source instructions(KDSI)  Function Point Count  A measure of the functionality perceived by the user delivered by the software developer. A function count is a weighted sum of the number of  – Inputs to the software application  – Outputs from the software application  – Enquiries to the software application  – Data files  – Internal to the software application  – shared with other software applications</p>		
30	<p><b>30. What are the different categories of project costs? (May 2015) Types of Cost</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Fixed Costs:</b> These costs stay the same and do not change throughout the project life cycle . Examples of fixed costs include setup costs, rental costs etc.</li> <li><input type="checkbox"/> <b>Variable Costs:</b> Variable costs are costs that change with the amount of work. Examples of variable costs are hourly labor, cost of material, cost of supply, fuel for bulldozer etc.</li> <li><input type="checkbox"/> <b>Direct Costs:</b> Direct costs are expenses that are billed directly to the project. Examples of direct costs are team travel expenses, team wages, cost of material used in a project, costs incurred for recognition and awards materials used to construct a building.</li> <li><input type="checkbox"/> <b>Indirect Costs:</b> Indirect costs are costs that are shared and allocated among several or all projects. Examples include fringe benefits and taxes. Another example of indirect costs could be the salary of an architect or a project manager who is partially allocated across many projects . Their team members' salaries would be direct costs since each of them are directly working on a particular project and their salary are direct costs to the project . But since the project manager is allocated to several projects , the costs incurred on his salary are indirect costs to the project .</li> </ul> <p><b>Sunk Costs:</b> Sunk costs are costs that have been incurred on a project but have not produced value towards the project objectives. Sunk costs are like spilt milk .If they are unrecoverable, they are to be treated as if they are irrelevant</p>	C411.2	BTL1
31	<p><b>What is internal rate of return? (May 2015)</b>  <b>Internal rate of return (IRR)</b> is the interest rate at which the net present value of all the cash flows (both positive and negative) from a project or investment equal zero.  Internal rate of return is used to evaluate the attractiveness of a project or investment. If the IRR of a new project exceeds a company's required rate of return, that project is desirable. If IRR falls below the required rate of return, the</p>	C411.2	BTL1

	project should be rejected.		
32	<p><b>What is cash flow forecasting? (May 2016)</b>  Cash flow forecasting involves the creation of a detailed listing of when cash receipts and cash expenditures should occur in the future. This information is needed to make fund raising and investment decisions.  The cash flow forecast can be divided into two parts: near-term cash flows and medium-term cash flows.</p>	C411.2	BTL1
33	<p><b>Define risk identification and ranking. (May 2016)</b>  Risk identification is the process of determining risks that could potentially prevent the program, enterprise, or investment from achieving its objectives. It includes documenting and communicating the concern.  Risk impact assessment is the process of assessing the probabilities and consequences of risk events if they are realized. The results of this assessment are then used to prioritize risks to establish a most-to-least-critical importance ranking. Ranking risks in terms of their criticality or importance provides insights to the project's management on where resources may be needed to manage or mitigate the realization of high probability/high consequence risk events.</p>	C411.2	BTL1
34	<p><b>Define project Evaluation.</b>  Project evaluation is a systematic method for collecting, analyzing, and using information to answer questions about projects, policies and programs, particularly about their effectiveness and efficiency</p>	C411.2	BTL5
35	<p><b>What is meant by programme?</b>  D.C. Ferns defined a programme as “a group of project that are managed in a coordinated way to gain benefits that would not be possible were the projects to be managed independently”.</p>	C411.2	BTL1
36	<p><b>Define business cycle programme.</b>  The collection of projects that an organization undertakes within a particular planning cycle is sometimes referring to portfolio. Decisions have to be made about which projects to implement within that budget within the accounting period.</p>	C411.2	BTL5
37	<p><b>Define Infrastructure programme</b>  . Some organizations have very integrated information systems. The distinct activities can be integrated.</p>	C411.2	BTL5
38	<p><b>Define Research and development programme.</b>  Truly innovative companies especially those that are trying to develop new product for the market, are well aware that projects will vary in terms of their risk of failure and the potential returns.</p>	C411.2	BTL5
39	<p><b>Define vision statement.</b>  A preliminary vision statement which describes the new capacity that the organization seeks. Significance-When the project begins, the project ... The goal of the vision statement is to describe what the project is expected.</p>	C411.2	BTL5
40	<p><b>What is meant by blueprint?</b>  The achievement of the improved capability described in the vision statement can</p>	C411.2	BTL1

	only come about when changes have been made to the structure and operations of the organizations. These are detailed in the blueprint.		
41	<p><b>What are things to be considered in the blueprint?</b>  Business models outlining the new process required.  Organization structure-The information systems  Data and information requirements  Costs, performance and service level requirements.</p>	C411.2	BTL1
42	<p><b>What are the benefits of management?</b>  1)Mandatory compliance  2) Quality of service●  3)Productivity  4)More motivated force  5)Internal management benefits  6)Risk reduction</p>	C411.2	BTL1
43	<p><b>Define development costs.</b>  Development costs include the salaries and other employment costs of the staff involved in the development project and all associated costs.  <math>TDEV = 3 \cdot (PM)(0.33+0.2*(B-1.01))</math>  PM is the effort computation and B is the exponent computed as discussed above (B is 1 for the early prototyping model). This computation predicts the nominal schedule for the project.</p>	C411.2	BTL5
44	<p><b>Define setup costs.</b>  Setup costs include the costs of putting the system into place.  These consists of mainly the costs of the new hardware <math>ESLOC = ASLOC * (1 - AT/100) * AAM</math>.  ASLOC and AT as before.  AAM is the adaptation adjustment multiplier computed from the costs of changing the reused  code, the costs of understanding how to integrate the code and the costs of reuse  Decision making.</p>	C411.2	BTL5
45	<p><b>Define operational costs.</b>  It consists of the costs of operating the system once it has been installed.  <math>EAC = AC + ETC</math>. Current variances are seen as a typical and the ... Fixed Costs,  Costs do not change.</p>	C411.2	BTL5
46	<p><b>Give the formula of payback period.</b>  Payback Period = Investment/ Annual Cash Savings</p>	C411.2	BTL1
47	<p><b>Outline the advantages of agile unified process . (Nov/Dec 2017)</b>  The UP provides an infrastructure for executing software product engineering projects, a framework composed of major and minor milestones and disciplines.</p>	C411.2	BTL1
48	<p><b>What is the significance of a “project risk matrix” ? give an example (May/Jun2012)</b>  Identify the risk and give priority.  Could draw up draw a project risk matrix for each project to assess risks  Project risk matrix used to identify and rank the risk of the project</p>	C411.2	BTL1
49	<p><b>Give the significance of cost benefit analysis.(Nov/Dec2012)</b>  A CBA is considered to be a subjective (as opposed to objective) assessment tool</p>	C411.2	BTL1



	because cost and benefit calculations can be influenced by the choice of supporting data and estimation methodologies. Sometimes it's most valuable use when assessing the value of a business proposal is to serve as a vehicle for discussion. Cost-benefit analysis is sometimes called benefit-cost analysis (BCA).		
50	<b>What is rapid application development ? (Nov/Dec 2017)</b> Rapid-application development (RAD) is both a general term, used to refer to adaptive software development approaches, as well as the name for James Martin's approach to rapid development. In general, RAD approaches to software development put less emphasis on planning and more emphasis on an adaptive process. Prototypes are often used in addition to or sometimes even in place of design specifications.	C411.2	BTL1

### PART B

S.N O	16 Mark Questions	CO	Bloom's Level
1	Explain how project can be evaluated against strategic, technical and economic criteria. <b>(Page.No:101-102) (Nov -2011)(8)(JUNE-2014),</b>	C411.2	BTL5
2	Explain in detail about the Amanda's decision tree. <b>(Refer Class notes)</b>	C411.2	BTL2
3	Explain the "Internal rate of return" method. Also mention its advantages over the NPV method. <b>.(Refer Class notes) (8) (May - 2012)</b>	C411.2	BTL2
4	Where are estimates done and explain the problems with over and under estimates. <b>(Page. No.:101-102) (16) (May 2016)</b>	C411.2	BTL2
5	Explain COCOMO – II model <b>(Page. No.:113-115) (JUNE-2017) (Nov/Dec 2017)</b>	C411.2	BTL2
6	Explain in brief Agile Methods. <b>(Page. No.:88-91)</b>	C411.2	BTL2
7	Discuss the spiral software development life cycle model with diagrammatic illustration. What are spiral model strengths ? What are the spiral model deficiencies ? When to use spiral model ? Discuss. <b>(Nov/Dec 2017) (Page. No.:95-97)</b>	C411.2	BTL3
8	Explain in detail, the various issues to be addressed in evaluating the risks		

	before deciding to take up a project <b>(Page. No.:115-110)</b>		
9	Evaluate the risk involved in a project and suggest appropriate strategies for minimizing the potential cost <b>(Page. No.:115-110)</b>	C411.2	BTL2
10	Explain in detail, how risks are handled in a project. Give examples. <b>(Page. No.:115-110)</b>	C411.2	BTL2
11	Explain in detail, the Internal Rate of Return (IRR) method for measuring the profitability of a project. Also mention its advantages over the NPV method. <b>.(Refer Class notes)</b>	C411.2	BTL2
12	Explain in detail, how cost-benefit evaluation techniques can be used to choose the best among competing project proposals. <b>.(Refer Class notes)</b>	C411.2	BTL2
13	How does the present value of future cash flow found? <b>.(Refer Class notes)</b>	C411.2	BTL2
14	Explain in brief about the effort and cost Estimation techniques in project Development. <b>(Refer Class notes)</b>	C411.2	BTL2
15	Write about SCRUM. <b>(Refer Class notes)</b>	C411.2	BTL2

## UNIT – III

### ACTIVITY PLANNING AND RISK MANAGEMENT

Objectives of Activity planning – Project schedules – Activities – Sequencing and scheduling – Network Planning models – Forward Pass & Backward Pass techniques – Critical path (CRM) method– Risk identification – Assessment – Monitoring – PERT technique – Monte Carlo simulation –Resource Allocation – Creation of critical patterns – Cost schedules.

#### COURSE OBJECTIVE:

To make the students to understand activity planning and risk management

#### PART – A

S.NO	2 Mark Questions	CO	Blooms Level
1	<b>Define feasibility management?</b> Feasibility management will depend upon the availability of staff and the degree to which activities may be undertaken in parallel.	C411.3	BTL1
2	<b>Define motivation?</b> To providing targets and being seen to monitor achievement against targets is an effective way of motivating staff..	C411.3	BTL1
3	<b>What are stages can planning done?</b> <input type="checkbox"/> Before the start of the project. <input type="checkbox"/> At each successive iteration.	C411.3	BTL1
4	<b>What are stages made by project schedule? .(NOV -2010)</b> <input type="checkbox"/> Ideal activity plan. <input type="checkbox"/> Activity risk analysis <input type="checkbox"/> Resource allocation. Schedule production	C411.3	BTL1
5	<b>Define the objective of activity planning.(MAY -2008)(MAY 2013)</b> The objective of software project planning is to provide a framework that enables the manager to make reasonable estimates of: <input type="checkbox"/> Resources <input type="checkbox"/> Cost <input type="checkbox"/> Schedule	C411.3	BTL1
6	<b>Define ideal activity plan? (MAY/2009)</b> A plan of when each activity would ideally be undertaken was resources not a constraint.	C411.3	BTL1

7	<b>Define sequencing?</b> Sequencing is defined as identifying the depending among activities by the development process.	C411.3	BTL1
8	<b>Define scheduling?</b> Scheduling is defined as process of specifying the time for when each activity should take place.	C411.3	BTL1
9	<b>In what based bar chart is drawn?</b> The chart has been drawn up taking account of the nature of the development process and the resources that are available.	C411.3	BTL4
10	<b>What are the things when drawing bar chart?</b> <input type="checkbox"/> Sequenced the tasks- identify the dependencies. Scheduled them- specify when they should take place	C411.3	BTL1
11	<b>What are the network planning models? (MAY/2010)</b> <input type="checkbox"/> CPM- Critical Path Method. <input type="checkbox"/> PERT-Program Evaluation Review Techniques. Precedence Network	C411.3	BTL1
12	<b>Define network model?</b> Network model is to represent the activities and interrelationship as a graph.	C411.3	BTL1
13	<b>Define source node?</b> The source node is the event of the project becoming ready to start.	C411.3	BTL1
14	<b>Define sink node?</b> The sink node is the event of the project becoming completed.	C411.3	BTL1
15	<b>What are the types of nodes?</b> <input type="checkbox"/> Source node <input type="checkbox"/> Sink node <input type="checkbox"/> Intermediate node	C411.3	BTL1
16	<b>What is dangle in an activity network. Give an example. (MAY 2012)</b> A dangle activity is a "loose" activity in your project schedule, and it has neither a predecessor activity neither a successor activity.it is hard to imagine an activity that is completely independent from all the other activities. An example dangle activity in a software project: "Optimizing the database", you can optimize the database at any point during the project, you don't have to wait for an activity to finish, and no activity has to wait for the database to be optimized in order to start.	C411.3	BTL3
17	<b>Define float?</b> Float is a measure of how much the start or completion of an activity may be delayed without affecting the end date of the project.	C411.3	BTL1
18	<b>Define interfering float? (MAY 2012)</b>	C411.3	BTL1

	The difference between total float and free float. This is quite commonly used, particularly in association on with the free float.		
19	<b>Define slack?</b> Slack is the difference between the earliest date and the latest date for an event.	C411.3	BTL1
20	<b>List the factors used to identify the risk .(NOV -2012)</b> <input type="checkbox"/> Inherent schedule flaws <input type="checkbox"/> Requirements Inflation <input type="checkbox"/> Employee Turnover <input type="checkbox"/> Specification Breakdown <input type="checkbox"/> Poor Productivity	C411.3	BTL1
21	<b>Define critical path? (NOV -2010)</b> The critical path is identified in a way similar to that used in activity-on-node network.	C411.3	BTL1
22	<b>Define risk management?(NOV – 2011)</b> Risk management is the identification, assessment and prioritization of risk.	C411.3	BTL1
23	<b>What are the main components of the risk management?</b> <input type="checkbox"/> Risk analysis. <input type="checkbox"/> Risk management.	C411.3	BTL1
24	<b>What are the risks to business impact? (Nov -2013)</b> <input type="checkbox"/> Risk identification <input type="checkbox"/> Risk evaluation <input type="checkbox"/> Risk estimation <b>Risk management</b> <input type="checkbox"/> Risk Control <input type="checkbox"/> Risk Monitoring <input type="checkbox"/> Risk directing <input type="checkbox"/> Risk staffing	C411.3	BTL1
25	<b>Define Hammock activities. (Nov -2013)</b> A <b>hammock activity</b> (also hammock task) is a schedule or project planning term for a grouping of tasks that "hang" between two end dates it is tied to. <b>Usages:</b> <input type="checkbox"/> Group dissimilar activities that lead to an overall capability, such as preparations under a summary label, e.g. "vacation preparation"; <input type="checkbox"/> Group unrelated items for the purpose of a summary such as a calendar-based reporting period, e.g. "First quarter plans"; <input type="checkbox"/> Group ongoing or overhead activities that run the length of an effort, e.g. "project management"	C411.3	BTL1

26	<p><b>State activity on arrow network with examples(May -2013)(JUNE -2014)</b></p> <ul style="list-style-type: none"> <li>□ <u>Activity-on-Arrow (AOA) networks</u></li> <li>o also called Arrow Diagramming Method (ADM)</li> <li>o simpler for projects with many dependencies</li> <li>o emphasizes events; milestones can be easily flagged</li> <li>o sometimes requires dummy activities</li> </ul> <div style="text-align: center;"> <table border="1" style="margin: 0 auto;"> <tr> <td style="background-color: #92d050;">Activity</td> <td style="background-color: #92d050;">Prior</td> </tr> <tr> <td style="background-color: #92d050;">Activity</td> <td style="background-color: #92d050;">Activity</td> </tr> <tr> <td>A</td> <td>None</td> </tr> <tr> <td>B</td> <td>A</td> </tr> </table>   </div>	Activity	Prior	Activity	Activity	A	None	B	A	C411.3	BTL1
Activity	Prior										
Activity	Activity										
A	None										
B	A										
27	<p><b>List 2 types of networks diagrams</b></p> <ul style="list-style-type: none"> <li>□ <u>Activity-on-Arrow (AOA) networks</u></li> <li>o also called Arrow Diagramming Method (ADM)</li> <li>o simpler for projects with many dependencies</li> <li>o emphasizes events; milestones can be easily flagged</li> <li>o sometimes requires dummy activities</li> <li>□ <u>Activity-on-Node (AON) networks</u></li> <li>o also called Precedence Diagramming Method (PDM)</li> <li>o easier to draw for simple projects</li> <li>o emphasizes activities</li> <li>o no dummy activities</li> </ul>	C411.3	BTL1								
28	<p><b>What is the significance of a Critical Path Method ?(Dec-2014)</b></p> <ul style="list-style-type: none"> <li>□ The path with zero flexibility is called Critical Path Method because it will have zero float between all of its activities.</li> </ul> <p>The Critical Path Method, abbreviated CPM, or Critical Path Analysis, is a mathematically based algorithm for scheduling a set of project activities. It is an important tool for effective project management</p>	C411.3	BTL1								
29	<p><b>What is a hazard. List out the generic risks.(June -2014)</b></p> <p>A <i>hazard</i> is an event that might occur and will create a problem for the successful completion of the project, if it does occur.</p>	C411.3	BTL1								
30	<p><b>What do you understand by work breakdown structure(Dec-2014)</b></p> <ul style="list-style-type: none"> <li>• Use Work Breakdown Structure (WBS) to generate a task list</li> <li>• WBS involves</li> <li>• It consists of creating a list of all activities of a project.</li> <li>• It makes use of brainstorming sessions or past similar projects to identify the activities.</li> </ul>	C411.3	BTL6								

	<ul style="list-style-type: none"> <li>identifying the main tasks</li> <li>break each main task down into subtasks</li> <li>The subtasks can further be broken down into lower level tasks.</li> </ul>		
31	<p><b>What is free float?(May 2015)</b>  <b>Free float</b> is a term in stocks trading. It describes the proportion of shares of a publicly traded company that is traded in the stock market.</p>	C411.3	BTL1
32	<p><b>What do you understand by risk transfer? Give an example. (May 2016)</b>  <b>Risk transfer</b> is the underlying tenet behind insurance transactions. The purpose of this action is to take a specific risk, which is detailed in the insurance contract, and pass it from one party who does not wish to have this risk, the insured, to a party who is willing to take on the risk for a fee, or premium, the insurer. For example, whenever a person purchases home insurance, he is essentially paying an insurance company to take the risk involved with owning a home.</p>	C411.3	BTL1
33	<p><b>Mention some of the objectives of activity planning. (May 2016)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Feasibility assessment</li> <li><input type="checkbox"/> Resource allocation</li> <li><input type="checkbox"/> Detailed costing</li> <li><input type="checkbox"/> Motivation</li> </ul> <p>Coordination</p>	C411.3	BTL1
34	<p><b>Appraise the need for modelling precedence networks ? (NOV/Dec 2017)</b>  This diagramming method is utilized to draw the project schedule network diagrams—for example the critical path network diagram and the critical chain network diagram.</p>	C411.3	BTL1
35	<p><b>Name the three estimates in PERT. (NOV/Dec 2017)</b></p> <p>In PERT, these three estimate times are derived for each activity. This way, a range of time is given for each activity with the most probable value, TLIKELY.</p> <p>Following are further details on each estimate:</p> <p>1. TOPT</p> <p>This is the fastest time an activity can be completed. For this, the assumption is made that all the necessary resources are available and all predecessor activities are completed as planned.</p> <p>2. TLIKELY</p> <p>Most of the times, project managers are asked only to submit one estimate. In that</p>	C411.3	BTL1

	<p>case, this is the estimate that goes to the upper management.</p> <p>3. TPESS</p> <p>This is the maximum time required to complete an activity. In this case, it is assumed that many things go wrong related to the activity. A lot of rework and resource unavailability are assumed when this estimation is derived.</p>		
36	<p><b>What are the steps involved in Activity Planning?</b></p> <p>Ensure that the appropriate resources will be available precisely when required.</p> <p>Avoid different activities competing for the same resources at the same time.</p> <p>Produce a detailed schedules showing which staff carry out each activity.</p> <p>Produce a timed cash flow forecast.</p>	C411.3	BTL1
37	<p><b>What are the objectives of activity planning?</b></p> <p>Feasibility assessment</p> <p>Resource allocation</p> <p>Detailed costing</p> <p>Motivation</p> <p>Co-ordination</p>	C411.3	BTL1
38	<p><b>Define resource allocation.</b></p> <p>What are the most effective ways of allocating resources to the project. When should the resources be available? The project plan allows us to investigate the relationship between timescales and resource availability.</p>	C411.3	BTL1
39	<p><b>What are the three different approaches to identifying the activities?</b></p> <p>Activity-based approach- constraints stemming from the relationships between projects</p> <p>Product-based approach- instructor becomes an active member of the project team</p> <p>Hybrid approach- Decision support system for software project management.</p>	C411.3	BTL1
40	<p><b>Write short notes on WBS.</b></p> <p>This involves identifying the main tasks required to complete a project and then breaking each of these down into set of lower-level tasks.</p>	C411.3	BTL1
41	<p><b>Mention the five levels of WBS.</b></p>	C411.3	BTL1



	<p>Project- engineering resources has been developed by TASK</p> <p>Deliverables- term for the quantifiable goods or services</p> <p>Components- designing the floor plane</p> <p>work-packages- Models for the description of software artifacts</p> <p>Tasks- Creation and distribution of organizing software</p>		
42	<p><b>How will formulate the network model?</b></p> <p>The first stage in creating a network model is to represent the activities and their interrelationships as a graph. Then constructing the precedence networks.</p>	C411.3	BTL1
43	<p><b>Define Hammock activities.</b></p> <p>Hammock activities which, in themselves, have zero duration but are assumed to start at the same time as the first ‘hammocked’ activity and to end at the same time as the last one.</p>	C411.3	BTL1
44	<p><b>What is meant by forward pass?</b></p> <p>The forward pass is carried out to calculate the earliest dates on which each activity may be started and completed. Significance - calculation method used in Critical Path Method.</p>	C411.3	BTL1
45	<p><b>What is meant by backward pass?</b></p> <p>The second stage in the analysis of a critical path network is to carry out a backward pass to calculate the latest date at which each activity may be started and finished without delaying the end date of the project. The calculating the latest dates, we assume that the latest finish date for the project is the same as the earliest finish date- that is we wish to complete the project as early as possible.</p>	C411.3	BTL1
46	<p><b>What are the rules of activity –on-arrow rules and conventions?(Nov/Dec2011)</b></p> <p>A project network may have only one start node</p> <p>A project network may have only one end node</p> <p>A link has duration Nodes have no duration</p> <p>Times moves from left to right 5)Nodes are numbered sequentially</p> <p>A network may not contain loops.</p>	C411.3	BTL1
47	<p><b>What are the risks to business impact?</b></p> <p>Effect of this product on company revenue?</p> <p>Reasonableness of delivery deadline?</p> <p>number of customers who will use this product</p> <p>interoperability constraints</p> <p>Sophistication of end users?</p> <p>Costs associated with a defective product?</p>	C411.3	BTL1

48	<p><b>Define risk assessment.</b> Using this formula Risk exposure = (potential damage) * (probability of occurrence)</p>	C411.3	BTL1
49	<p><b>Define Hazard analysis.</b> A hazard analysis is a process used to assess risk. The results of a hazard analysis are the identification of unacceptable risks and the selection of means of controlling or eliminating them. The term is used in several engineering specialties, including avionics, chemical process safety, safety engineering and food safety.</p>	C411.3	BTL1
50	<p><b>What are called “Free floats” and “interfering floats”? how are they calculated?(May/Jun2012)</b> Total float is the amount of time by which an activity may be delayed without delaying the project Completion Caution: interpret total floats of activities carefully - all cannot be used independently. Free float is that part of total float which can be used without affecting floats of the succeeding activities. The part of total float which is not free is called interfering float Independent float is the amount of time which can be used without affecting the head and the tail events. Total Float <math>\geq</math> Free Float <math>\geq</math> Independent Float Head event slack = Earliest start time of the next activity – Earliest completion time of the activity Free float= Total float – Head event slack Interfering float= Total float – Free float.</p>	C411.3	BTL1

## PART B

S.NO	16 Mark Questions	CO	Bloom's Level
1	Explain various steps involved & the objectives of activity planning in detail. (8) (Page. No.:126-128) (Nov – 2013)	C411.3	BTL2
2	Explain the activity based approach of project activities. (Page. No.:129-131) (Dec-2014)	C411.3	BTL2
3	What is project schedule? Explain the stages of project schedules. (Page. No.:128)	C411.3	BTL1
4	Explain Network planning model. Explain with an example how critical path can be identified in precedence networks. (Page. No.:135) (16) (May - 2013) (16) (May - 2012),(Nov -2012)(16) (Nov -2011), (Nov/Dec 2017) (16)	C411.3	BTL3

5	Illustrate a network model. Explain rules for constructing the precedence network. <b>(Page. No.:135-137) (8) (Nov – 2013) (Dec-2014) (JUNE-2017)</b>	C411.3	BTL6
6	Briefly explain the steps involved in risk planning in project development. <b>(Page. No.:164) (Nov -2012)(8)</b>	C411.3	BTL2
7	Define hazard. How are hazards identified and analyzed? <b>(Refer Class notes)</b>	C411.3	BTL4
8	Describe with an example how the effect of risk on project schedule is evaluated using PERT. <b>(Page. No.:167-170) (Nov-2011), (Nov/Dec 2017) (16)</b>	C411.3	BTL4
9	Explain how you will identify the major risks, & identify the strategies for minimizing each of those risks. <b>(Page. No.:159-160) (16) (May - 2013) (May - 2012) (Dec-2014) (JUNE-2017)</b>	C411.3	BTL2
10	Discuss the impact of risk in a project. How is risk monitoring achieved to avoid failure in the project? <b>(Page. No.:165-166) (June -2014)</b>	C411.3	BTL2
11	Describe the steps involved in sequencing and scheduling in activities in a planning model. Give examples <b>(Page. No.:134) (June – 2014)</b>	C411.3	BTL2
12	Explain the use of checklist and brainstorming in identification of risks. <b>(Page. No.:159) (Dec-2014)</b>	C411.3	BTL2
13	Explain the importance of forward pass in calculating the earliest dates with an example. <b>(Refer Class notes) (11) (May - 2015)</b>	C411.3	BTL3
14	Explain the two important approaches used for identifying risks. (5). <b>(Page. No.:167) (May - 2015)</b>	C411.3	BTL2
15	What are called “Activity on arrow networks”? Explain the rules and conventions used in drawing Activity on arrow networks. (8) . <b>(Page. No.:146) (May - 2015)</b>	C411.3	BTL2
16	List down the important software project risks and outline the strategies used to mitigate them. <b>(Page. No.:159) (8) (May - 2015)</b>	C411.3	BTL2
17	Write short notes on risk engineering. . <b>(Page. No.:156-165) (8) (May - 2016)</b>	C411.3	BTL2
18	Write short notes on Software Project risks and strategies for risk reduction. . <b>(Page. No.:160-165) (8) (May - 2016)</b>	C411.3	BTL2
19	(i) Draw a network diagram representing the following logic : As the project starts, activities A and B can be performed concurrently. When A is	C411.3	BTL6

	<p>finished, activities C and D can start. When B is finished , activities E and F can start. When activities D and E are finished , activity G can start. The project is complete when activities C,F and G are finished.</p> <p>(ii)Appraise with an example Monte carlo simulation.</p> <p><b>Refer notes</b></p>		
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#### UNIT IV

### PROJECT MANAGEMENT AND CONTROL

#### SYLLABUS:

Framework for Management and control – Collection of data Project termination – Visualizing progress – Cost monitoring – Earned Value Analysis- Project tracking – Change control- Software Configuration Management – Managing contracts – Contract Management. **COURSE**

#### OBJECTIVE:

To make the students to manage and control projects.

#### PART A

S.NO	Two Mark Questions	CO	Bloom's Level
1	<p><b>Define review point.</b> Project review will generally take place at particular points during the life of a project , it is commonly known as review points.</p>	C411.4	BTL1
2	<p><b>Define planned expenditure.</b> Planned expenditure is one in which the costs increased by the project is estimated before project starts</p>	C411.4	BTL1
3	<p><b>Define revised expenditure.</b> Revised expenditure is made when alteration to the existing planned expenditure is done.</p>	C411.4	BTL1
4	<p><b>Define baseline budget.</b> The assigned value in the original budgeted cost for the item is known as the baseline budget.</p>	C411.4	BTL1
5	<p><b>Define earned value. Give the Formula.(Nov -2013)</b> The total value credited to a project at any point is known as the earned value Earned value = Percentage completed X Budget (Cost or Man – Hour Terms)</p>	C411.4	BTL1
6	<p><b>Define crashing.</b> Adding more resources to a project to shorten its duration is called crashing</p>	C411.4	BTL1

7	<b>Define time/cost trade off.</b> Timescales can also be shortened by buying more resources.This rule is called time/cost trade off	C411.4	BTL1
8	<b>Define functional point. (June-2017)</b> A functional point is a unit of measurement to express the amount of business functionality an information system provides to a user	C411.4	BTL1
9	<b>Define contract management. (MAY -2010)</b> Contract management is the management of contracts made with customers, vendors, partners or employees	C411.4	BTL1
10	<b>What is meant by setting checkpoints? (NOV -2012)</b> Setting checkpoints is essential to set a series of checkpoints in the initial activity plan	C411.4	BTL1
11	<b>Define control points</b> Project review will generally take place at particular points during the life of a project , it is commonly known as review points.	C411.4	BTL1
12	<b>List the important role of configuration Librarian (MAY -2012)</b> <b>Configuration management (CM)</b> is a process for establishing and maintaining consistency of a product's performance, functional and physical attributes with its requirements, design and operational information throughout its life.	C411.4	BTL4
13	<b>What are the ways used to reporting?</b> <input type="checkbox"/> Oral or written <input type="checkbox"/> Formal or informal <input type="checkbox"/> Regular or adhoc	C411.4	BTL1
14	<b>What are the two factors used to progress of project? (MAY -2012)</b> <input type="checkbox"/> Size of the project <input type="checkbox"/> Degree of risk of the project	C411.4	BTL2
15	<b>What are the colors used in traffic light color?</b> <input type="checkbox"/> Green <input type="checkbox"/> Amber <input type="checkbox"/> Red	C411.4	BTL2
16	<b>Mention the advantages of function point analysis. (NOV – 2011) (JUNE-2017)</b> Function Point Analysis has been proven as a reliable method for measuring the size of computer software. In addition to measuring output, Function Point Analysis is extremely useful in estimating projects, managing change of scope, measuring productivity, and communicating functional requirements.	C411.4	BTL2
17	<b>What are the two methods used to progress of project in picture(MAY -2010)</b> <input type="checkbox"/> Gantt charts <input type="checkbox"/> Timeline charts	C411.4	BTL2
18	<b>Write the uses of ball charts.</b> Ball chart is used to indicate whether the expected target is met or not	C411.4	BTL2

19	<p><b>What are the information available in circles?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Original scheduled dates</li> <li><input type="checkbox"/> Recent target dates</li> </ul>	C411.4	BTL2
20	<p><b>What are the Common methods for assigning earned value in s/w projects? (NOV - 2011)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The 0/100 technique</li> <li><input type="checkbox"/> The 50/50 technique</li> <li><input type="checkbox"/> The milestone technique</li> </ul>	C411.4	BTL2
21	<p><b>Define Bespoke. (NOV -2012)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> It refers to custom services or products.</li> <li><input type="checkbox"/> bespoke software is software customized for a specific purpose</li> <li><input type="checkbox"/> bespoke is used in the computer industry is in reference to websites</li> <li><input type="checkbox"/> Bespoke programs may include custom accounting software for a certain company or a network monitoring tool for a specific network</li> </ul>	C411.4	BTL1
22	<p><b>What are the advantages &amp; disadvantages of fixed price contracts? (Nov -2013)</b></p> <p><b>Advantages</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Fixed pricing is intended to attract more customers and clients because it offers them assurances.</li> <li><input type="checkbox"/> The client to know how much he will pay prior to agreement.</li> <li><input type="checkbox"/> customers get used to your pricing and you have less risk of offending them by fluctuating prices over time.</li> <li><input type="checkbox"/> Sales forecasting and profit estimates are also simpler when you know your price point.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> It doesn't allow for adjustments if you get into product or service delivery and realize your cost basis is higher than expected.</li> <li><input type="checkbox"/> The customer pays the established price regardless of changes in your time or costs.</li> <li><input type="checkbox"/> This may mean you undercharge a customer due to a lot of additional work hours beyond those estimated in the price quote.</li> <li><input type="checkbox"/> Fixed pricing also doesn't allow for adjustments over time to sell off extra inventory or available seats for entertainme</li> </ul>	C411.4	BTL2

23	<p><b>Draw the project control cycle model(May -2013)</b></p> <pre> graph TD     Start([Start]) --&gt; Publish[Publish initial plan]     Publish --&gt; Gather[Gather project information]     Gather --&gt; Compare[Compare progress vs. targets]     Compare --&gt; Satisfactory{Satisfactory?}     Satisfactory -- No --&gt; Remedial[Take remedial action]     Remedial --&gt; Revised[Publish revised plan]     Revised --&gt; Gather     Satisfactory -- Yes --&gt; Completed{Project completed?}     Completed -- No --&gt; Compare     Completed -- Yes --&gt; EndProject([End project])     EndProject --&gt; Review[Review project]     Review --&gt; Document[Document conclusions]     Document --&gt; End([End]) </pre>	C411.4	BTL2
24	<p><b>What are the levels of prioritizing monitoring(May -2013)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Priority list of activity to monitor</li> <li><input type="checkbox"/> Critical activities</li> <li><input type="checkbox"/> Non-critical activities with no free float</li> <li><input type="checkbox"/> Non-critical activities with less than a specified float</li> <li><input type="checkbox"/> High risk activities</li> <li><input type="checkbox"/> Activities with critical resources</li> </ul>	C411.4	BTL2
25	<p><b>State earned value analysis. (June – 2014)</b>  Earned value analysis is based on assigning a value to each task or work package based on the original expenditure forecasts.  The assigned value is the original budgeted cost for the item and is known as the baseline budget or budgeted cost of work scheduled (BCWS).</p>	C411.4	BTL4
26	<p><b>What is slip chart? Mention its use. (Dec-2014)</b>  The slip chart is a very similar alternative favored by some project managers who believe it provides a more striking visual indication of those activities that are not progressing to schedule  – the more the slip line bends, the greater the variation from the plan.  <b>Adv:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> It indicates the project variation from the plan by slip line bends.</li> <li><input type="checkbox"/> It provides a more striking visual indication of those activities that progressing as per schedule.</li> </ul>	C411.4	BTL1
27	<p><b>What is time and material contract.(Dec-2014)</b>  With this type of contract, the customer is charged at a fixed rate per unit of effort, for example, per staff-hour. At the start of the project, the supplier normally provides an estimate of the overall cost based on their current understanding of the customer’s requirements.</p>	C411.4	BTL1

28	<p><b>Define Scope Creep. (May-2015)</b>  <b>Scope creep</b> (also called requirement <b>creep</b>, function <b>creep</b> and feature <b>creep</b>) in project management refers to uncontrolled changes or continuous growth in a project's <b>scope</b>. This can occur when the <b>scope</b> of a project is not properly <b>defined</b>, documented, or controlled. It is generally considered harmful.</p>	C411.4	BTL1
29	<p><b>Differentiate Budgeted cost of work scheduled and Budgeted cost of work performed. (May-2015)</b>  BCWP is contrasted to <b>Budgeted Cost for Work Scheduled (BCWS)</b> also called Planned Value (PV). BCWS is the sum of the <b>budget</b> items for all <b>work</b> packages, planning packages, and overhead which was <b>scheduled</b> for the period, rather than the <b>cost</b> of the <b>work</b> actually <b>performed</b>.  <b>Budgeted Cost for Work Performed (BCWP)</b> also called Earned Value (EV), is the <b>budgeted cost of work</b> that has actually been performed in carrying out a <b>scheduled</b> task during a specific time period. BCWP is a term in Earned value management approach to Project management.</p>	C411.4	BTL4
30	<p><b>How are proposals evaluated? (May-2016)</b>  Proposals are evaluated based on</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Clarity of the Proposal</li> <li><input type="checkbox"/> Scientific significance of the proposal objectives</li> <li><input type="checkbox"/> Sound research methodology</li> <li><input type="checkbox"/> Applicability</li> <li><input type="checkbox"/> Budget estimation</li> </ul>	C411.4	BTL4
31	<p><b>Elucidate the stages of contract placement. (May-2016)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Requirements analysis</li> <li><input type="checkbox"/> Evaluation</li> <li><input type="checkbox"/> Invitation to tender</li> <li><input type="checkbox"/> Evaluation of proposals</li> </ul>	C411.4	BTL2
32	<p><b>What is change control ?(NOV/Dec 2017)</b>  Change control is a systematic approach to managing all changes made to a product or system. The purpose is to ensure that no unnecessary changes are made, that all changes are documented, that services are not unnecessarily disrupted and that resources are used efficiently. Within information technology (IT), change control is a component of <a href="#">change management</a>.</p>	C411.4	BTL1
33	<p><b>Define outsourcing? (NOV/Dec 2017)</b>  Outsourcing is a business practice in which a company hires another company or an individual to perform tasks, handle operations or provide services that are either usually executed or had previously been done by the company's own employees.</p>	C411.4	BTL1
34	<p><b>What is BCWS?</b>  The budgeted cost of tasks as scheduled in the project plan, based on the costs of resources assigned to these tasks, plus any fixed costs associated with the tasks, called  “The Budgeted cost of work Schedule” BCWS. It is the baseline cost up to the status date you choose</p>	C411.4	BTL1



35	<p><b>What is ACWP and BCWP?</b>  The actual cost required to complete all or some portion of the tasks, up to the status date. This is to the actual cost of work performed (ACWP). The value of the work earned by the work performed and is called the budgeted cost of work performed (BCWP).</p>	C411.4	BTL1
36	<p><b>What is cost variance (CV) and schedule variance (SV)?</b>  Cost variance is the difference between a task's estimated cost and its actual cost. <math>CV = BCWP - ACWP</math>.  Schedule variance (SV) is the difference between the current progress and the schedule progress of a task in terms of cost. <math>SV = BCWP - BCWS</math>.</p>	C411.4	BTL1
37	<p><b>What is cost performance index (CPI) and schedule performance index (SPI)?</b>  Cost performance index is the ratio of budgeted costs to actual costs. <math>CPI = BCWP / ACWP</math>  Schedule performance index is the ratio of work performed to work schedule <math>SPI = BCWP / BCWS</math></p>	C411.4	BTL1
38	<p><b>Who is the client and supplies in contract management?</b>  Client is the customer who asks for a contract to work for his project. Client may be customer or sometimes company, which is the client to supplier (controller). Supplier, is one who supplies goods and services may be contractor/company owner</p>	C411.4	BTL2
39	<p><b>What is form of agreement in contract management?</b>  Form of agreement in contract management written, and subjected to legal consideration.</p>	C411.4	BTL2
40	<p><b>What are goods and sources to be supplied in contract?</b>  Goods are equipment and software. Sources to be provided are: training, documentation, installation, conversion at existing files, maintenance agreements ,  transitional insurance arrangements</p>	C411.4	BTL2
41	<p><b>What is the environment of contract?</b>  Environments are physical equipment, accommodation, electrical supply etc. For Software: OS platforms, hardware etc</p>	C411.4	BTL1

42	<p><b>What is standard in contract?</b>  Standard: ISO 12207 standard relating to the software life cycle and its documents. ISO 12207 standard provides for the customer to have access to quality documentation. ISO 9000 series for progress meetings and progress information.</p>	C411.4	BTL1
43	<p><b>What are the different types of contracts?</b>  a) Fixed price contracts.  b) Time and materials contracts.  c) Fixed price per delivered unit contracts</p>	C411.4	BTL1
44	<p><b>Define Gantt Chart</b>  One of the simplest and oldest techniques project progress is the Gantt -chart this is essentially an activity bar chart indicating scheduled activity dates and duration frequently augmented with activity floats.</p>	C411.4	BTL1
45	<p><b>What is cost monitoring?</b>  Cost Monitoring is monitoring expenditure for the project. Project costs may be monitored by a company's accounting system.</p>	C411.4	BTL1
46	<p><b>Define slip chart.</b>  A slip chart is a very alternative favored by some project managers who believe it provides a more Striking visual indication of those activities that are not progressing to schedule the more the slip line bends, the greater variation from the plan</p>	C411.4	BTL1
47	<p><b>What is meant by fixed price contracts?</b>  Involve a fixed total price for a well-defined product or service  • may include incentives for meeting certain performance objectives or penalties if those  • objectives are not met.</p>	C411.4	BTL1
48	<p><b>Where to use time and materials contract?</b>  A time and materials contract may be used only when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence.</p>	C411.4	BTL2
49	<p><b>What are the services to be provided in contracts?</b>  Training• Documentation• Installation• Conversion of existing files•  Maintenance agreements• Transitional insurance agreements.</p>	C411.4	BTL2

50	<p><b>Mention the advantages and disadvantages of fixed price contracts.</b></p> <p>Advantages: Known customer expenditure• Supply motivation• Higher prices to allow for contingency</p> <p>Disadvantages: Difficulties in modifying requirements• Upward pressure on the cost of changes• Threat to system quality.</p>	C411.4	BTL2
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### PART B

S.NO	16 Mark Questions	CO	Bloom's Level
1	Explain in detail about the process of prioritizing monitoring give ex. . (Page. No.:221) (Nov -2012) (8) (Nov – 2013) (June – 2014)(16)	C411.4	BTL2
2	What are the different types of visualizing progress explain in detail? . (Page. No.:212-213) (8) (May - 2013), (Nov -2012)(8)	C411.4	BTL1
3	Explain how to delayed projects can be brought back on track. . (Page. No.:222) (8) (May - 2013)	C411.4	BTL2
4	Explain Assessing the state of project.(Refer Class Notes) (Nov -2011)(8)	C411.4	BTL4
5	Explain Controlling changes to a project requirement. (Page. No.:224-225) (Nov - 2011), (Nov/DEC 2017) (8)	C411.4	BTL5
6	Discuss the change control procedures in detail. (Page. No.:224-225) (8) (May - 2012) (Dec-2014) (June-2017)	C411.4	BTL2
7	Explain the steps in managing contract under ISO 12207 approach. (Page. No.:246) (8) (May - 2013)	C411.4	BTL2
8	Explain the different stages in contract placement. (Page. No.:239-241) (Nov - 2011)(16) (16) (Nov – 2013)	C411.4	BTL2
9	Explain the earned value analysis methods. (Refer Class Notes) (Dec-2014) (May – 2016), (Nov/DEC 2017)	C411.4	BTL2
10	Explain the advantages & disadvantages of fixed price contract model. (Page. No.:234)	C411.4	BTL2
11	Explain the types of contract with example. (Page. No.:234) (Nov -2012)(16)	C411.4	BTL2
12	List down the terms of contract & explain in detail. (Page. No.:243-245) (16)( May - 2012) (16) (Nov – 2013) (June – 2014) (Dec-2014)	C411.4	BTL2
13	Outline the use of Gantt charts and timeline charts in visualizing project progress with suitable diagrams. (Page. No.:212-214) (8) (May – 2015)	C411.4	BTL4
14	Explain Software Configuration Management (Page. No.:226-228), (Nov/DEC 2017) (JUNE-2017)	C411.4	BTL2
15	Explain Framework for Project Management and control (Page. No.:202-204) (JUNE-2017)	C411.4	BTL2

## UNIT V

### STAFFING IN SOFTWARE PROJECTS

Managing people – Organizational behavior – Best methods of staff selection – Motivation – The Oldham-Hackman job characteristic model – Ethical and Programmed concerns – Working in teams – Decision making – Team structures – Virtual teams – Communications genres – Communication plans.

#### COURSE OBJECTIVE:

To make the students to understand how to manage people in an organization.

#### PART A

S.NO	Two Mark Questions	CO	Bloom's Level
1	<b>What is the general recruitment process approach?</b> <ul style="list-style-type: none"><li><input type="checkbox"/> Create a job specification</li><li><input type="checkbox"/> Create a job holder profile</li><li><input type="checkbox"/> Obtain applications</li><li><input type="checkbox"/> Examine CVs</li><li><input type="checkbox"/> Interviews</li><li><input type="checkbox"/> Other Procedures</li></ul>	C411.5	BTL1
2	<b>What are the types of motivation? (NOV -2010)</b> <ul style="list-style-type: none"><li><input type="checkbox"/> Intrinsic motivation</li><li><input type="checkbox"/> Extrinsic motivation</li></ul>	C411.5	BTL1
3	<b>Define intrinsic motivation.</b> Intrinsic motivation refers to motivation that is driven by an interest or enjoyment in the task itself and exists within the individual rather than relying on any external pressure	C411.5	BTL1
4	<b>What are the two factors about a job? (MAY -2010)</b> <ul style="list-style-type: none"><li><input type="checkbox"/> Motivators</li><li><input type="checkbox"/> Hygiene</li></ul>	C411.5	BTL1
5	<b>What are the three variables introduced by Vroom?</b> <ul style="list-style-type: none"><li><input type="checkbox"/> Valence</li><li><input type="checkbox"/> Expectancy</li><li><input type="checkbox"/> Instrumentality</li></ul>	C411.5	BTL1

6	<p><b>What are the factors that made the job meaningful?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Skill variety</li> <li><input type="checkbox"/> Task Identity</li> <li><input type="checkbox"/> Task Significance</li> <li><input type="checkbox"/> Autonomy</li> <li><input type="checkbox"/> Feedback</li> </ul>	C411.5	BTL1
7	<p><b>Define Stress.(NOV -2012)</b>  Stress is any circumstance that places special physical and/or psychological demands on a person such that an unusual or out-of-the-ordinary response occurs.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The circumstance – the stressor- can be a final exam, a financial problem, or a difficult boss.</li> <li><input type="checkbox"/> The response- the stress response- may be a physiological or psychological manifestation</li> </ul>	C411.5	BTL1
8	<p><b>What are the three methods are adopted for improving motivation?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Set specific goals</li> <li><input type="checkbox"/> Provide feedback</li> <li><input type="checkbox"/> Consider job design</li> </ul>	C411.5	BTL1
9	<p><b>What are the two measures used to enhance job design?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Job enlargement</li> <li><input type="checkbox"/> Job enrichment</li> </ul>	C411.5	BTL1
10	<p><b>What are stages to become a team?(NOV -2011)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Forming</li> <li><input type="checkbox"/> Storming</li> <li><input type="checkbox"/> Norming</li> <li><input type="checkbox"/> Performing</li> <li><input type="checkbox"/> Adjourning</li> </ul>	C411.5	BTL1
11	<p><b>Define risky shift. (NOV -2010)</b>  People in groups often make decisions that carry more than where they have to make the decision on their own</p>	C411.5	BTL1
12	<p><b>Define leadership.</b>  Leadership is the ability to influence others in a group to act in a particular way in order to achieve group goals.</p>	C411.5	BTL2
13	<p><b>What is masslow’s hierarchy needs? (MAY -2012) (MAY -2015)</b>  Maslow's Hierarchy is the hierarchy of human behavior that is often used for achieving management objectives based on psychological and physiological needs. How does this relate to project management? Read on to find out.</p>	C411.5	BTL2

14	<p><b>What do you understand by Egoless Programming? (MAY -2012)</b>  The idea is that programmers must fight the natural tendency to treat their programs as part of themselves, and therefore to reject all criticism. Rather, they should do their best to treat their designs &amp; implementations as objects independent of themselves, and to view criticism dispassionately on its merits. It's a spiritual discipline that we all fall short of, but that's worth attempting.</p>	C411.5	BTL2
15	<p><b>Give the difference between personal &amp; organizational stress. (NOV -2011)</b>  <b>Organizational stressors-</b> white-collar stressors are usually related to the worker's role in the organization. The most common organizational stressors are failure in role-sending and role-taking.  Role conflict-occurs when role demands are in conflict</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Intra sender conflict</li> <li><input type="checkbox"/> Inter sender conflict</li> <li><input type="checkbox"/> Inter role conflict</li> </ul>	C411.5	BTL5
16	<p><b>What are the factors to be considered in the Oldham-Hackman job characteristic model?</b>  Skill variety- one or more of the offerings available from a variety of organizations</p> <ul style="list-style-type: none"> <li>• Task variety- enhance Key words</li> <li>• Task significance- autonomy, and feedback from the job</li> <li>• Autonomy- for Consulting &amp; Software Companies</li> <li>Feedback- submit your comments and suggestions</li> </ul>	C411.5	BTL1
17	<p><b>List the steps involved in selecting the right person for the job. (NOV -2012)</b>  Interview process can be a tremendous help if you use it effectively.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Conducting a thorough job analysis</li> <li><input type="checkbox"/> Determining your need to hire a new employee</li> <li><input type="checkbox"/> Writing a job description and job specification for the position based on the job analysis.</li> <li><input type="checkbox"/> Checking references.</li> <li><input type="checkbox"/> Hiring the best person for the job.</li> <li><input type="checkbox"/> Interviewing the most qualified candidates for the position, based on the job's description and specification.</li> </ul>	C411.5	BTL4
18	<p><b>What is start-to-start relationship (SS)?</b>  It means that one activity can start if and only if another activity starts.</p>	C411.5	BTL1
19	<p><b>What are the uses of Nominal group techniques?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Problem solving</li> <li><input type="checkbox"/> Creative decision making</li> <li><input type="checkbox"/> Ideas generating situations</li> </ul>	C411.5	BTL1

20	<p><b>Define Acceptance. (Nov -2013)(June – 2014)</b>  <b>Acceptance criteria</b> will relate to what you must do to demonstrate that the expected quality has been achieved.  For example, the programme manager might ask for a set of interoperability test results to demonstrate that interoperability standards have been adhered to, or they might ask for a report from an external evaluator that assesses fitness for purpose.</p>	C411.5	BTL1
21	<p><b>What is forming? (Nov -2013)</b>  The first stage encompasses the transition from a group of individuals to a functioning team. During this time, members build confidence and trust in each other as well as their leader. In this period of instability, you may initially notice:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Frequent complaining about the organization</li> <li><input type="checkbox"/> Inability to focus discussions on relevant tasks</li> <li><input type="checkbox"/> Silence in meetings</li> <li><input type="checkbox"/> Little or no interaction between members</li> </ul>	C411.5	BTL1
22	<p><b>List some obstacles for good group decision making? (May -2013)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> it is time consuming;</li> <li><input type="checkbox"/> it can stir up conflicts within the group;</li> <li><input type="checkbox"/> and decisions can be unduly influenced by dominant personalities.</li> <li><input type="checkbox"/> Experiments have shown that people will modify their personal judgements to conform to group norms.</li> <li><input type="checkbox"/> People in groups sometimes make decisions that carry more risk than when they make the decision on their own. This is known as the <i>riskyshift</i>.</li> </ul>	C411.5	BTL4
23	<p><b>Write down four selection criteria for SCM tools. (May -2013)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Multi user support</li> <li><input type="checkbox"/> Scalability</li> <li><input type="checkbox"/> Easy to setup</li> <li><input type="checkbox"/> Process management</li> </ul>	C411.5	BTL1
24	<p><b>What is Herzberg’s two factor theory(Dec-2014)</b>  Research into job satisfaction by Herzberg and his associates found two sets of factors about a job.  <b>Hygiene or maintenance factors</b>  Which can make you dissatisfied if they are not right, for example, the level of pay or the working conditions?  <b>Motivators</b>  Which make you feel that the job is worthwhile, like a sense of achievement or the challenge of the work itself.</p>	C411.5	BTL1

25	<p><b>Write the three basic objectives of organizational structure (June – 2014)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Functional</li> <li><input type="checkbox"/> Matrix</li> <li><input type="checkbox"/> Projected</li> <li><input type="checkbox"/> Combination of the above</li> </ul>	C411.5	BTL1
26	<p><b>What do you understand by virtual team? (Dec-2014)</b>  A <b>virtual team</b> is a group of individuals who work across time, space and organizational boundaries with links strengthened by webs of communication technology.</p>	C411.5	BTL1
27	<p><b>Mention the important causes of stress encountered in projects. (May- 2016)</b></p> <ol style="list-style-type: none"> <li>1. Unrealistic timeline</li> <li>2. Working in a matrix system which PM does not have the full control of the resources</li> <li>3. Lack of resources – human and/or equipment</li> <li>4. Proliferation of virtual teams and cross cultural influences</li> <li>5. Inter-group conflict in organization</li> <li>6. Project environment</li> </ol>	C411.5	BTL4
28	<p><b>How would you select a right person for a job? (May- 2016)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Does the candidate have the practical experience that you want/need to grow your team and your business?</li> <li><input type="checkbox"/> Does he/she have the specific strengths that you need for this particular position?</li> <li><input type="checkbox"/> Will the candidate fit the culture of the organization and play well with others?</li> </ul>	C411.5	BTL4
29	<p><b>Define expectancy theory of motivation. (May- 2016)</b>  <b>Expectancy theory</b> (or <b>expectancy theory of motivation</b>) proposes an individual will behave or act in a certain way because they are <b>motivated</b> to select a specific behavior over other behaviors due to what they expect the result of that selected behavior will be.</p>	C411.5	BTL1
30	<p><b>What is motivation? (NOV/Dec 2017)</b></p> <p>Motivation is the word derived from the word 'motive' which means needs, desires, wants or drives within the individuals. It is the process of stimulating people to actions to accomplish the goals. In the work goal context the psychological factors stimulating the people's behaviour can be -</p> <ul style="list-style-type: none"> <li>• desire for money</li> <li>• success</li> <li>• recognition</li> <li>• job-satisfaction</li> <li>• team work, etc</li> </ul>	C411.5	BTL1



31	<p><b>Outline the strategies for risk reduction ? (NOV/Dec 2017)</b>  <b>Risk mitigation strategies</b> are a term to describe different ways of dealing with risks. These strategies include <b>risk avoidance, transfer, elimination, sharing</b> and <b>reducing</b> to an acceptable level. We have to keep in mind that there are always some risks and that's why the fundamental question is not how to eliminate the risk but how to deal with the risk in a way to reduce to the minimum level the impact or the probability of occurrence.</p>	C411.5	BTL2
32	<p><b>Mention the methods of improving motivation.</b>  Set specific tasks, provide feedback, and consider job design.</p>	C411.5	BTL1
33	<p><b>How to becoming a team?</b>  Forming- The members of the groups get to know each other and try to set up• some ground rules about behaviour• Storming- one nice packaging, all for publishing need• Norming- Asset Management is a powerful and complete asset management solution• Performing- Optimize project delivery across the software• Adjourning - added a final stage</p>	C411.5	BTL2
34	<p><b>Define team worker.</b>  Skilled at creating a good working environment to manage all the people who are Developing Projects, team proposed to extend these concepts.</p>	C411.5	BTL1
35	<p><b>What are the two categorized for Decision making?</b>  Structured- generally relatively simple, routine Decisions where rules can be applied in a• fairly straightforward way Unstructured- more complex and often requiring a degree of creativity</p>	C411.5	BTL1
36	<p><b>Mention some mental obstacles to good decision making.(May/Jun2013)</b>  Faculty heuristics- is an innovative effort by students and members of staff• escalation of commitment- behavior, sunk cost, risk propensity, risk perception,• information overhead- developers analyze, design, and develop software</p>	C411.5	BTL2
37	<p><b>What are the measures to reduce the disadvantages of group Decision making?</b>  The cooperation of a number of experts.• The problem is presented to the experts.• The experts record their recommendations.• These recommendations are collated and reproduced.• The collect responses are re circulated.</p>	C411.5	BTL2
38	<p><b>What are the functions of leader?</b>  Goal-setter• Planner,• Executive,• Expert,• Spokesman,• Controller of internal relationships,• Administrator of rewards and punishments,• Arbitrator and mediator,• Role model,• Symbol of the group, and• Father figure.•</p>	C411.5	BTL1

39	<p><b>What are the leadership models/theories?</b></p> <p>Trait theory,• Leadership styles based on authority,• Managerial grid,• Continuum approach,• Feidler’s contingency model, and• Path-goal theory.•</p>	C411.5	BTL2
40	<p><b>What are the leadership styles?</b></p> <p>Directive autocrat,- This manager makes all the Decisions unilaterally and manages Learning• to Lead permissive autocrat- Concepts using simple and precise free downloadable• directive democrat- Management Styles Permissive Democrat Directive Autocrat document• permissive democrat- Makes decisions participative subordinates have latitude•</p>	C411.5	BTL2
41	<p><b>List out the five process of Project Management Institute [PMI].</b></p> <p>Initiating• Planning• Executing• Controlling• Closing•</p>	C411.5	BTL1
42	<p><b>What is bespoke system.(Nov/Dec2012)</b></p> <p>Bespoke is a term used in the United Kingdom and elsewhere for an individually- or custom-made product or service. Traditionally applied to custom-tailored clothing, the term has been extended to information technology, especially for software consulting services. Typically, software consulting company’s offer packaged (already invented and generally applicable) software and bespoke software for client needs that can’t be satisfied by packaged software. In the U.S., bespoke software is often called customer custom-designed software.</p>	C411.5	BTL1
43	<p><b>what is the use of checkpoints in monitoring.(Nov/Dec2012)</b></p> <p>Based on regular time intervals• Can be weekly or monthly or quarterly• Depend on what to check and how to• Based on a particular event• At the end of each activity• In the middle of a critical activity• Should be set before the plan was published• Make sure everyone knows when and what the check points are•</p>	C411.5	BTL2
44	<p><b>What are the objectives of managing people and organizing teams?(Apr2014)</b></p> <p>Identify some of the factors that influence people’s behavior in project.• Select and induct new staff into a project.• Increase staff motivation.• Improve group working.• Use the most appropriate leadership styles.•</p>	C411.5	BTL2
45	<p><b>What are the three basic objectives of organizational behavior.(Apr2014)</b></p> <p>To select the best people for the job.• To instruct them in the best methods.• To give instructions in the form of higher wages to the best workers.•</p>	C411.5	BTL2
46	<p><b>What are the advantages of functional team format?</b></p> <p>Complete the project on time• Complete the project within budget.• Meet requirements.• Meet expectations•</p>	C411.5	BTL2

47	<b>List out the categories of decisions.</b> Planning• Control• Maintenance•	C411.5	BTL1
48	<b>Write the five basic stages of development.</b> Defining the product• Documenting plan• Estimating cost• Estimating effort.•	C411.5	BTL1
49	<b>List out the stages of team formation model.</b> Forming- The members of the groups get to know each other and try to set up some ground rules• about behavior Storming- one nice packaging, all for publishing need• Forming- Asset Management is a powerful and complete asset management solution• Performing- Optimize project delivery across the software•	C411.5	BTL2
50	<b>List out the methods for improving motivation.</b> Set specific tasks• provide feedback• Consider job design.•	C411.5	BTL2

### PART B

S.NO	16 Mark Questions	CO	Bloom's Level
1	Explain the Oldham-hackman job characteristic model. Give the Vroom's Expectancy theory. (Page. No.:258) (8) (May – 2012) (16) (Nov – 2013) (Dec-2014) (June-2017), (Nov/DEC 2017)	C411.5	BTL2
2	Explain in detail about decision making. With an example the strength of the team. (Page. No.:268-270) (8) (May - 2013) , (Nov - 2012)(June – 2014)	C411.5	BTL2
3	Explain how new staff can be selected and inducted into a project. (Page. No.:253-254) (8) (May - 2013) (Nov -2011)(8)(June – 2014)(June-2017)	C411.5	BTL2
4	Explain to improve group performance. (Page. No.:265) (Nov -2011)(8)	C411.5	BTL2
5	List the factors that are involved in making a team. Explain the characteristics. (Page. No.:274-280) (8) (Nov - 2012) (JUNE-2017), (Nov/DEC 2017)	C411.5	BTL1
6	Discuss in detail about the organizational structures. (Page. No.:273-275) (8) (May - 2013) (16- May – 2012)(16) (Nov - 2012) (Dec-2014)	C411.5	BTL2
7	Define motivation. Explain the different models of motivation. (Page. No.:255-257) (8) (May - 2013) (Dec-2014)	C411.5	BTL2
8	Write a note on leadership styles. (Page. No.:284-285) (Nov -2011)(8)	C411.5	BTL2

9	Write notes on stress handled in development process. <b>(Page. No.:259) (8) (May – 2012)</b>	C411.5	BTL2
10	Give a brief note on health and safety issues. <b>(Page. No.:260) (Dec-2014)</b>	C411.5	BTL2
11	Discuss leadership models .Explain function of a leader with an example. <b>(Page. No.:284-285) (16) (Nov – 2013)</b>	C411.5	BTL3
12	Discuss the Maslow’s hierarchy of needs with an example. <b>(Refer class notes) (June – 2014)(8)</b>	C411.5	BTL3
13	Explain the importance of working together as a team and the various aspects of team development. <b>(Page. No.:265-268) (8) (May - 2015)</b>	C411.5	BTL2
14	Write short note on decision making. <b>(Page. No.:268-270) (8) (May - 2016)</b>	C411.5	BTL2
15	Write short notes on Team Structure and Virtual Team in a Software Project. <b>(Refer class notes)</b>	C411.5	BTL2