BOSTON CITY CAMPUS

COURSE OUTLINE

Workflow Management 3

(HWFM3161)

Assessment Strategy (AS4)

January-June 2020

About the Institution

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ANNEXURES:

1. COURSE INTRODUCTION

1.1 Overview

Welcome to the **Workflow Management 3 (HWFM3161)** module. This Course Outline is intended to assist students by providing a detailed support document to help you with navigating this specific module.

Students are regarded as adult learners who are self-motivated and are treated as such. Boston places students at the centre of the learning process, emphasising learning as an "individual act", thus students take full responsibility for their own learning. Educators will facilitate learning to enable students to achieve the learning outcomes required in each module.

The purpose of **Workflow Management 3** is to provide the student with knowledge, and necessary skills, in the following knowledge areas:

- The concept of workflows;
- Workflow management;
- Workflow management systems;
- Modelling Workflows;
- Functions and architecture of workflow systems;
- Workflow System Development;
- Heuristic Workflow Redesign;
- Technologies for the Virtual Enterprise.

1.2 The Module

This module is part of a learning programme or qualification that is registered by the South African Qualifications Authority (SAQA) on the Higher Education Qualifications Sub-Framework (HEQSF), which is a sub-framework of the National Qualifications Framework (NQF) and is structured as follows.

- Module name: **Workflow Management 3 (HWFM3161)**
- Learning type: Core
- Course level: 6
- Module credits: 21
- Notional hours: 210

1.3 Notional Hours

The South African Qualifications Authority (SAQA) introduced the model of credits related to notional hours as part of Outcomes-Based Education (OBE). Notional hours are defined as the amount of time it takes the average student to achieve the learning outcomes as defined for each course. The model of notional hours prescribes for this 21 credit module, the notional hours will be 210.

Notional hours can consist of any combination of the following activities: reading, tasks or self-evaluation exercises, listening or viewing of tapes and videos, attendance of tutorial or

lecture sessions, participation in discussions or online forums, undertaking experiential or collaborative learning, completing assignments and research work, conducting interviews, and preparing for and sitting of examinations. It is important to note that this model considers workload from a student's perspective and how much time it would take the average student to comprehend the knowledge, skills, attitudes and values that are embodied in a particular course (Kilfoil, 2009)[1].

Within **Annexure B** of each Course Outline is a detailed **Proposed Study Programme** to assist students with the planning of their studies according to a specific academic workload model, to ensure success in meeting the required learning objectives and activities within the required timelines as stipulated in the **Academic Calendar** (**Annexure D**).

1.4 Introduction to SAQA, QCs and the NQF

Who is the South African Qualifications Authority (SAQA)?

In terms of the NQF Act 67 of 2008, the South African Qualifications Authority (SAQA) is a juristic person, given a legal personality by law. SAQA has a Board, whose members are appointed by the Minister of Higher Education and Training. Identified stakeholders in education, training and related support practices, nominate these members. SAQA's role is to:

- Advance the objective and oversee the further development of the NQF;
- Coordinate with the Quality Councils, three sub-frameworks of the NQF; and
- Regulate professional bodies.

In terms of qualifications and professional bodies, SAQA must:

- Develop and implement policy and criteria, after consultation with the QCs, for the development, registration and publication of qualifications and part-qualifications.
- Develop policy and criteria, after consultation with the QCs, for assessment, recognition of prior learning and credit accumulation and transfer.
- Develop and implement policy and criteria for recognising a professional body and registering a professional designation.

What are Quality Councils (QCs)?

Quality Councils (QCs) are sector-based structures responsible for the development and quality assurance of qualifications on the NQF. There are three QCs for the three main sectors, namely:

- General and Further Education and Training;
- Higher Education; and
- Trades and Occupations.

The three QCs are:

[1] Kilfoil. W.R. 2009. Credits, Notional Hours and Workload. [Web Access] http://www.unisa.ac.za/ [Access Date: 27 June 2011].

- *UMALUSI*, the QC for General and Further Education and Training, which encompasses schools, and public and private TVET Colleges.
- The *Council on Higher Education* (CHE), the QC for Higher Education and concerns itself with universities and private higher education institutions.
- The *Quality Council for Trades and Occupations* (QCTO), the QC for occupations, which deals with workplace learning and skills development. Such an example is a learnership.

What is the National Qualifications Framework?

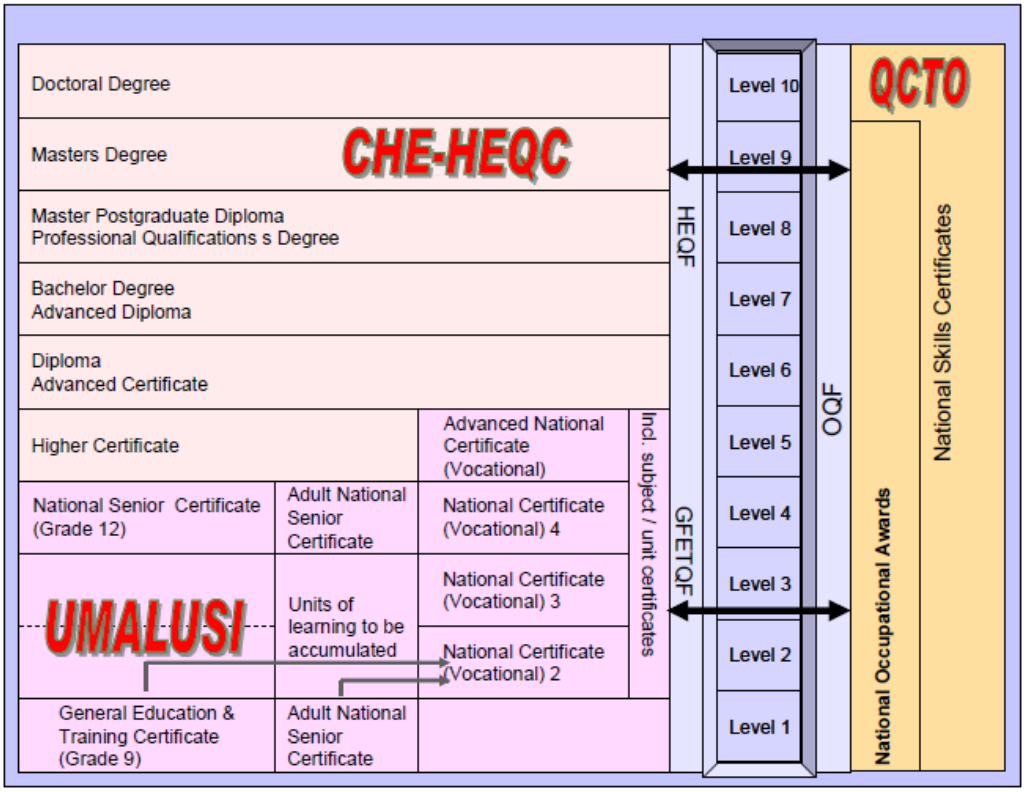
The National Qualifications Framework (NQF) is a comprehensive system for the classification, registration, publication and articulation of quality assured national qualifications. The NQF is the set of principles and guidelines that enables national recognition of acquired skills and knowledge, thereby ensuring an integrated system that encourages life-long learning.

NQF Objectives

The objectives of the NQF, as outlined in the NQF Act 67 of 2008, are as follows:

- To create an integrated national framework for learning achievements;
- To facilitate access to, and mobility and progression within, education, training and career paths;
- To enhance the quality of education and training;
- To accelerate the redress of past unfair discrimination in education, training and employment opportunities; and
- To contribute to the full personal development of each citizen/learner and the socio-economic development of the nation at large.

What Does the NQF Look Like?



The NQF is organised as a series of levels of learning achievement, arranged in ascending order from one to ten. A statement of learning achievement, known as a *level descriptor*, describes each level on the NQF. A level descriptor provides a broad indication of learning achievements or outcomes that are appropriate to a qualification at that level. The content of the level descriptors are developed and determined by SAQA, in agreement with the three QCs.

2. CRITICAL OUTCOMES OF THE LEARNING PROGRAMME

The generic, cross-curricular outcomes of a programme supports all aspects of the learning process, and a disciplinary specialist within Boston's Faculty formulates them.

The table below provides information about the critical cross-field outcomes, an explanation thereof, the associated assessment criteria, and their alignment with the appropriate NQF standards, which inform all of the teaching and learning within this module.

This ensures that the intended purpose of the qualification is realised with the intended type of graduate by providing:

- A well-rounded, broad education.
- Knowledge that emphasises the theory and methodology of disciplines in the professional context.
- Principles and theory that are emphasised as a basis for entry into professional practice, in a wide career range.

NQF LEVEL DESCRIPTORS:

Description	NQF 5	NQF 6	NQF 7	NQF 8
SCOPE OF KNOWLEDGE	Demonstrate an informed understanding of the core areas of one or more fields… an informed understanding of the key terms, concepts, facts, general principles, rules and theories of that field.	Detailed knowledge of main areas in one or more fields. An understanding and the ability to apply the key terms, concepts, facts, principles, rules and theories to unfamiliar but relevant contexts.	Integrated knowledge of the central areas of one or more fields. The ability to apply and evaluate the key terms, concepts, facts, principles, rules and theories of that field.	Demonstrate knowledge of and engagement in an area at the forefront of a field. An understanding of the theories, research methodologies, methods and techniques relevant to the field, discipline or practice. Understand how to apply such knowledge in a particular context.
KNOWLEDGE LITERACY	Demonstrate awareness of how knowledge or a knowledge system develops and evolves within the area of study or operation	Demonstrate an understanding of different forms of knowledge, schools of thought and forms of explanation within a specific study area, and an awareness of knowledge production processes.	Demonstrate an understanding of knowledge as contested and the ability to evaluate types of knowledge and explanations typical within the area of study.	Demonstrate the ability to interrogate multiple sources of knowledge in an area of specialisation and to evaluate knowledge and processes of knowledge production.
METHOD AND PROCEDURE	Demonstrate the ability to select and apply standard methods, procedures and techniques to a particular field, and to plan and manage such implementation.	Demonstrate an ability to evaluate, select and apply appropriate methods, procedures and techniques in investigation or application of processes within a defined context.	Understanding of range of methods of enquiry in a field, and their suitability to specific investigations, and the ability to select and apply a range of methods to resolve problems or introduce change within a practice.	Understanding of the complexities and uncertainties of selecting, applying or transferring appropriate standard procedures, processes or techniques to unfamiliar problems in a specialised field.
PROBLEM SOLVING	Ability to identify, evaluate and solve defined, routine and new problems within a familiar context. Ability to apply solutions based on relevant evidence, demonstrating an understanding of the consequences.	Ability to identify, analyse and solve problems in unfamiliar contexts, gathering evidence and applying solutions based on evidence.	Ability to identify, analyse, evaluate, critically reflect on and address complex problems, applying evidence-based solutions and theory-driven arguments.	Ability to use a range of specialised skills to identify, analyse and address complex or abstract problems drawing systematically on the body of knowledge and methods appropriate to a field.
ETHICS AND PROFESSIONAL PRACTICE	Ability to take account of, and act in accordance with, prescribed organisational and professional ethical codes of conduct.	Demonstrate an understanding of the ethical implications of decisions and actions within an organizational or professional context.	Ability to take decisions and act ethically and professionally and the ability to justify those decisions drawing on appropriate ethical values.	Ability to identify and address ethical issues based on critical reflection on the suitability of different ethical value systems to specific contexts.

ACCESSING, PROCESSING, MANAGING INFORMATION	Ability to gather information from a range of sources and to select information appropriate for the task.	Ability to evaluate different sources of information and to select information appropriate for the task and to apply well-developed processes of analysis, synthesis and evaluation of that information.	Ability to develop appropriate processes of information gathering for a given context of use, and the ability to independently validate the sources of information and evaluate and manage information.	Ability to critically review information gathering, synthesis of data, evaluation and management processes in specialised contexts in order to develop creative responses to problems and issues.
PRODUCING AND COMMUNICATING INFORMATION	Ability to communicate information reliably, accurately and coherently, using conventions appropriate to the context… an understanding of and respect for the conventions around intellectual property, copyright and plagiarism	Ability to present and communicate complex information reliably and coherently using appropriate academic and professional or occupational conventions.	Ability to develop and communicate his or her ideas and opinions in well- formed arguments, using appropriate academic, professional and occupational discourse.	Ability to present and communicate academic, professional or occupational ideas and texts effectively to a range of audiences, offering creative insights, rigorous interpretations and solutions to problems and issues appropriate to the context.
CONTEXT AND SYSTEMS	Ability to operate in a range of familiar and new contexts, demonstrating an understanding of different systems, their parts and the relationships between these parts.	Ability to make decisions and act appropriately in familiar and new contexts, demonstrating an understanding of the relationship between systems and how one impacts on another.	Ability to manage processes in unfamiliar and variable contexts, recognising that problem solving is context and system bound	Ability to operate effectively within a system, or manage a system based on an understanding of the roles and relationships between elements within the system.
MANAGEMENT OF LEARNING	Ability to evaluate his or her performance and the performance of others; and to take appropriate actions where necessary and to take responsibility for his learning within a structured learning process.	Ability to evaluate performance against given criteria, and accurately identify and address his or her task- specific learning needs in a given context. And to provide support for others where appropriate.	Ability to identify, evaluate and address his or her learning needs in a self-directed manner and to facilitate a collaborative learning process.	Ability to apply, in a self-critical manner, learning strategies which effectively address his or her professional and ongoing learning needs and the professional and ongoing learning needs of others.
ACCOUNTABILITY	Ability to take account for his or her actions, to work effectively with and respect others and to take supervisory responsibility in a well- defined context.	Ability to work effectively in a team or group and take responsibility for his or her decisions and the actions of others in well-defined contexts.	Ability to take full responsibility for his or her work, decision making and use of resources… and limited accountability for the decisions of others in varied or ill-defined contexts.	Ability to take full responsibility for his or her work, decision-making and use of resources, and full accountability for the decisions and actions of others where appropriate.

3. TEACHING, LEARNING AND ASSESSMENT

3.1 Learning Philosophy

As an accredited and registered private higher education institution, Boston is committed to the implementation of Outcomes-Based Education (OBE), and as such the learning and assessment approach and methodology that facilitate the appropriate execution thereof.

Boston views learning as a complex interaction between students' personal purpose, which is to improve their knowledge and ability, their prior knowledge and disposition, and requirements for specific subject matter enquiry. Therefore, Boston subscribes to an approach that learning:

- Should be action-orientated and communicative
- Is not transferred but constructed
- Is the making of meaning and could be propositional or presentational
- Is a process shaped by learning perspectives and learning schemes
- Occurs through refinement and elaboration
- Should be authentic and true, instrumental, communicative and reflective
- Should be active and based on a reflective decision to act
- Should result in an acquisition of instrumental and communicative competence via critical reflection and self-reflection on assumptions.

3.2 Learning Methodology

Teaching and learning at Boston is integrated into every aspect of the development, evaluation and delivery of each module and learning programme.

Boston has moved from the traditional presentation of learning support materials i.e. textbook and study handbook based only, which has a traditional instructor-centred curriculum, to a student-centred approach that mandates the faculty and academic support staff to:

- Encourage students to develop the ability to think critically and solve problems creatively.
- Promote an understanding of the relevance of the intended learning outcomes.
- Encourage students to develop enquiring minds and to investigate relevant topics further in order to enrich their learning experiences.
- Provide students with the opportunity to experience the demands of the working world.
- Promote a positive and supportive learning environment where students, faculty and support staff work towards common objectives.
- Encourage students to grasp the practical application behind the theory.
- Promote a sense of responsibility for learning and assessment.

Teaching at Boston consists of:

- Faculty and information, communication and technology (ICT) equipment
- Describing and unpacking of specific knowledge components
- Discussing examples within industry and/or the workplace
- Relating these with the purpose and objectives of the module and learning programme
- Interaction with students
- Outcomes-based learning materials, filmed lectures on TMS[2], online assessments, course outlines, prescribed textbooks, study guides/workbooks, study plans and sample assessments and memoranda
- Evaluation and feedback.

Learning consists of:

- Student access to information, communication and technology (ICT) equipment/programme
- Readings, discussions and participation sessions of knowledge components and practical application thereof
- Independent study and investigation into knowledge and practical components
- Interaction with faculty
- Experiential, peer and collaborative learning, self-evaluation exercises and learning activities
- Outcomes-based learning materials, prescribed and recommended readings, assessments and feedback.

3.3 Assessment Strategies and Types of Assessments

Below is a summary of assessment strategies used:

- **Assessment Strategy C (ASC):**
    - Formative assessments (FA1 and FA2), also known as quizzes, will count fifty percent (50%) - twenty five percent (25%) each - towards the overall mark.
    - A summative assessment in the form of a final exam (SA1), will count fifty percent (50%) towards the overall mark.

- **Assessment Strategy 2 (AS2):**
    - The formative assessment (FA1), also known as an assignment or test, will count fifty percent (50%) towards the overall mark.
    - The summative assessment in the form of a final exam or capstone project (SA1), will count fifty percent (50%).

[2] TMS [Training/Telematic Management System incorporating a Learning Management System (LMS)]

- **Assessment Strategy 3 (AS3):**
    - The formative assessment (FA1), also known as an assignment or test, will count forty percent (40%) towards the overall mark.
    - The summative assessments in the form of a final exam or capstone project (SA1), will count fifty percent (50%), and a research or reflective essay (SA2) will count ten percent (10%) towards the overall mark.

- **Assessment Strategy 4 (AS4):**
    - The formative assessments (FA1 and FA2), also known as assignments or tests, will count forty percent (40%) - twenty percent (20%) each - towards the overall mark.
    - The summative assessments in the form of a final exam or capstone project (SA1), will count fifty percent (50%), and a research or reflective essay (SA2) will count ten percent (10%) towards the overall mark.

- **Assessment Strategy 5 (AS5):**
    - The formative assessments (FA1 and FA2), also known as assignments or tests, will count thirty percent (30%) - fifteen percent (15%) each - towards the overall mark.
    - The summative assessments in the form of a final exam or capstone project (SA1), will count sixty percent (60%), and a research or reflective essay (SA2) will count ten percent (10%) towards the overall mark.

- **Assessment Strategy W (ASW):**
    - The formative assessments (FA1 and FA2), also known as assignments, will count forty percent (40%) - twenty percent (20%) each - towards the overall mark.
    - The summative assessments in the form of a practicum, will count forty percent (40%), and a simulation based assignment (SA2) will count twenty percent (20%) towards the overall mark.

There are a number of assessment types appropriate to the distance-learning environment, of which the most common are report writing, true-false tests and multiple-choice examinations (Foltz, 1990)[3].

Distance learning is reliant on independent study. For this reason, most formative assessments are considered open-book assessments, while summative assessments are invigilated events. They all aim at assessing a student's mastery of certain or specific subject matter.

Regardless of the assessment type, any formative assessment in this environment should have three main aims, which are:

[3] Foltz, D. 1990. Toward Better Service and Testing. Occasional Paper Number 3. Washington, DC: DETC.

- To encourage students to review
- To enable students to monitor their comprehension of the knowledge areas
- To reinforce the learning outcomes of a study unit or series of units.

Measured by these aims, outlined below are the various types of assessments utilised in the module and the learning programme.

3.3.1 Self-Assessment and Recommended Reading

Students are guided by the course outlines and contents within study units to complete specific self-assessment exercises, such as, self-evaluation questionnaires, activities or practices, which appear in the prescribed textbooks and/or study guides. In addition, students are encouraged to make use of the institution's library, or any resource centre, to access the recommended reading list which includes self-assessment exercises.

Students are also informed of the importance and relevance of self-assessment exercises, and are encouraged to keep records of it to assist with reflection, examination preparation and student-centred interaction.

3.3.2 Report Writing

With some study units or courses, writing and composition might be the only practical method of assessment. Report writing requires a student to demonstrate their knowledge of a particular subject through composing a written representation that communicates understanding and insight.

3.3.3 True-False Test

Carefully constructed true-false questions can measure higher mental processes such as understanding, application and interpretation. They are particularly suitable for testing attitudes and beliefs, and can be adapted to most content areas, although they work best in testing elementary subject matter. True-false tests do have the advantage of making it possible to ask many questions on a larger number of knowledge areas in a limited amount of time.

3.3.4 Open-Book Test/Assignment

Open-book testing is used to:

- Stimulate review
- Reinforce learning objectives
- Communicate goals
- Furnish feedback on misunderstood knowledge areas
- Separate those students who have reached a specific set of objectives from those who have not, indicating further specific interventions by the Faculty.

Suitable open-book questions should require that students review the learning material continuously. This assessment type should be thought of as context-dependent. If questions are properly prepared, students have to demonstrate their ability to extrapolate and infer key concepts from a specific knowledge area, rather than simply find an answer in the text and "parrot" it back. Therefore, the emphasis is on repetition and inference, as students review and re-review the learning materials in an effort to recognise, understand, synthesize and select appropriate responses. Questions that can be answered on the basis of rote memory should be kept to a minimum as students can simply "cram" to prepare for such testing and little, if any, learning takes place.

3.3.5 Multiple-Choice Question Examination

Multiple-choice examinations, consisting of questions in the form of a stem and four or five options (the correct answer along with distracters, or incorrect alternatives) have many advantages. The greatest of these is perhaps their versatility: multiple-choice questions can measure factual recall, as well as the students' ability to reason, exercise judgment, and express themselves correctly and effectively. Students find them less ambiguous and generally prefer them to true-false tests. This type of assessment can also be scored accurately and provide immense per-item reliability.

3.3.6 Student-Centred Interaction

By encouraging students to continually ask questions and be comfortable with the questioning of concepts and engaging in self-reflection, students are given ample opportunity to assess and improve their knowledge and understanding by means of effective communication with distance learning faculty and peers.

3.3.7 Sample Assignment and Examination Papers and Memoranda

Students receive a sample assignment and memorandum, as well as a sample examination paper and memorandum, so as to familiarise themselves with the various assessment formats and duration. This further enables them to determine their overall progress and level of preparedness for the final summative assessment.

3.4 Feedback to Students

Boston's approach to teaching, learning and assessment is strongly influenced by the belief that students are entitled to feedback and a discussion on their performance. This is interwoven into the teaching strategies. There are many sound educational reasons for doing this in a comprehensive manner. Students are encouraged to contact Educators for personal feedback on their assessments.

Detailed feedback reports accompany the marks/grades for formal formative assessments, which are communicated and returned to students within 4 weeks after the due dates of submission. In each instance, an examiner's report accompanies the memorandum with

correct responses and/or examples of model answers for each formal formative assessment activity.

This provides an opportunity to repeat important learning objectives and knowledge areas, considering that repetition is a powerful element in learning. A good feedback report should motivate and assist students to improve. A thorough feedback report should also clear up any misconceptions and misunderstandings.

Finally, a comprehensive feedback report should point out learning objectives, and underline and reinforce important knowledge areas. Therefore, feedback on assessments should include the following aspects:

- Identifying errors and, where appropriate, describe the degree of error
- Postulating the probable cause of the error
- Suggesting a solution or a way to improve
- Comments that are positive and encouraging
- Focus on specific errors, clarifying any concepts the student overlooked.

4. STUDENT ACCESS TO IT, LIBRARY AND OTHER RESOURCES

4.1 Distance Learners and Support Centres

Essential to the effectiveness of the Boston network of Support Centres is granting distance learners localised access to technology, library and the service support resources that are provided to students by the Boston Head Office.

As guiding principles, it must be re-emphasised that Boston Support Centres do not form part of the programme other than the centres being conveniently located throughout South Africa which assist them in serving as a point of contact and access to provide support services for students who:

- Do not have access to resource rich infrastructure at home, an office or elsewhere in a relative close proximity
- Experience difficulty with taking control of their study environments, for example, mitigating excessive distractions, exercising sufficient self-discipline, implementing a routine, and managing time
- Relate better to auditory and kinaesthetic learning styles.

In other words, every learner is registered with Head Office as a unique distance learner, and the teaching, learning and assessment remains at a distance with appropriate quality assured materials and services to complete their studies independently. No student accessing services at a Support Centre will be placed at a discernible advantage over a student that elects not to access services at a Support Centre. Support Centres will be utilised as examination venues for invigilated sittings.

In considering all of the above information, the support services accessible at Boston Support Centres may be delineated in the following manner by classifying them as:

- Venues for accessing the range of important career, study and motivational counselling services, and the completing and submitting of an online Application for Admission, or other administrative documents i.e. change of module, submitting request for deferral, handing in ID etc.
- Venues for accessing Information Technology and Communication resources, to pre-book[4] time to utilise computers for accessing filmed lectures on TMS , typing assessments, submitting assessments online, emailing Head Office re: Academic, Assessment, and Administrative queries etc.
- Venues for facilitating logistical support i.e. a reliable address to receive and send study guides, prescribed textbooks, assignments, feedback reports, certificates etc.
- Venues for facilitating the sitting of invigilated tests and examinations.

4.2 Hours of Operation

Normal hours of operation within Boston for telephonic, email or access to premises are Monday to Thursday 08:00 to 17:00 and on Friday from 08:00 to 13:00. An extension hereof will be reviewed periodically in accordance with students' needs.

4.3 Head Office Resource Centre

Boston established a Resource Centre (RC) for students and staff at its Head Office in Orange Grove. The RC provides students and Support Centres with access to national and international databases for all its information searches. All research and information material not available in the RC may be obtained for students, faculty, support staff and Support Centres through inter-library lending or purchasing and disseminating of e-publications.

Librarian	Contact details
Jacques Viljoen	021-815-4808 jacquesv@boston.co.za

[4] It is important to pre-book and confirm bookings with the selected Support Centre for attendance of video (TMS/LMS) sessions, assessment uploading and submission and sitting of tests within formative assessment weeks.

5. COMMUNICATION AND SUPPORT

5.1 Student Support

Students are encouraged to engage with Educators as and when they have academic queries - as indicated in section 5.3 below. Educators will provide support during the semester within office hours, **Monday** to **Thursday**.

Please Note: There will be no student support from Educators on a Friday.

5.2 General and Administrative Support (Administrative – NOT Course Related)

When you communicate with Boston, or when you submit your assignments, it is important that you supply the College with your:

- Surname and initials
- Student number
- ID number
- Correct postal address and/or email address
- Cellular phone number and/or telephone numbers at home and/or work
- Name of Support Centre selected

Please note that all written communication such as emails, and all queries must be addressed under *specific topics*. Please address your queries in writing to the relevant section at the College i.e. the Administrative Coordinators deal with registrations, student accounts, timetables, results, etc., the Educators deal with academic content matters, such as a query about a particular theory in the guide or an assignment question within a paper.

When phoning the Institution please identify your specific query to the switchboard operator to enable them to put you through to the relevant department and person who can address your inquiry effectively.

Registrar: Administration	**Contact details**
Ruan Venter	021-271-0850 ruanv@boston.co.za
Assessment Manager	**Contact details**
Samantha Mitchell	021-815-4820 samantham@boston.co.za
Student Accounts Consultant	**Contact details**
Your selected Support Centre	Available on website

5.3 Academic Support (Course Related – Not Administrative)

An Educator who is a qualified and experienced subject specialist is appointed for each module to support students throughout their studies. Academic matters should be addressed directly with the Educator (see contact details below).

Educator support does not provide support for queries of an administrative nature, such as due dates or late submissions. Educators deal only with academic content or subject matter-related queries such as: *"... please help clarify the meaning of question 2, which appears on page 15 of my Study Guide for Fundamentals of Accounting*."

At least one Educator will be assigned to each module of study. The Educator will be available to assist students with academic queries related to subject-matter content. They will also be available to offer assistance and feedback on assessments upon request.

Support Centres are not staffed with Educators and students cannot expect to have their academic queries addressed by Support Centre staff.

Registrar: Academic	**Contact details**
Nadine Botha	021-815-4812 nadinek@boston.co.za
Academic & Quality Manager (AQM)	
Grant van Dieman	021-815-4833 grantv@boston.co.za
Educator	**Contact details**
Charles Muranda	021-271-0841 charlesm@boston.co.za

Providing quality academic support is of the utmost importance to Boston. In order to ensure this quality is maintained, Boston has undertaken to ensure the process of engaging with Educators is as transparent as possible.

Students are able to contact an Educator by means of:
1. E-mail
2. Telephone
3. Face-to-face consultation
4. Skype

1. E-mail queries must be directed to the Educator for a particular module. The Educator will reply directly to the student and will copy in the Academic Quality Manager.

2. Telephonic consultations will take place by appointment only. Firstly, this ensures that the most suitable facilitator or tutor is allocated. Secondly, it will also serve to ensure that a firm arrangement is made, and a sufficient time-slot is allocated to deal thoroughly with

the subject matter concerned. Thirdly, the Educator will call the student on the agreed number at the agreed time. Confirmation of the agreed number and time will be communicated to the student beforehand. To book a telephonic appointment, students can either call or e-mail the Educator or Academic Quality Manager.

3. Face-to-face consultations will take place by appointment only. Face-to-face appointments will take place exclusively at the Head Office in Orange Grove, Johannesburg. Confirmation of the agreed time will be communicated to the student beforehand. To request a face-to-face appointment, students can either call or e-mail the Educator or Academic Quality Manager.

4. Skype consultations will take place by appointment only. Firstly, this ensures that the most suitable facilitator or tutor is allocated. Secondly, it will also serve to ensure that a firm arrangement is made, and a sufficient time-slot is allocated to deal thoroughly with the subject matter concerned. Thirdly, the Educator will skype-call the student at the agreed time. Confirmation of the agreed time will be communicated to the student beforehand. To book a skype-call appointment, students can either call or e-mail the Educator or Academic Quality Manager.

Students must take note that any further or subsequent communication must be directed to the Educator or Academic Quality Manager, who in turn will repeat the process described above.

5.4 Student Wellness

Embarking on higher education studies is an exciting journey. It can also be a time of change and pressure that may lead to unexpected challenges that affect your academic performance and/or personal life. Student Wellness is an initiative that offers limited personal support to our students for assistance and referrals due to personal, social or career issues/concerns.

A dedicated *Student Wellness Module* is available to all registered students on ColCampus. The purpose of the module is to provide Boston's students with information and guidance regarding a variety of interpersonal, study, and wellness topics, with the aim of making the transition to college and distance learning as seamless as possible.

Head of Institution/Academic Head	**Contact details**
Dr. Hendrik Botha	021-815-4811 hendrik@boston.co.za
Registrar: Academic	**Contact details**
Nadine Botha	021-815-4812 nadinek@boston.co.za
Student Wellness	**Contact details**
Robyn Wright-Parkin	011-883-0933 robynw@boston.co.za

5.5 Summary of Contact Procedure:

Forward your query or questions to the *Academic Quality Manager* or your *Educator* via e-mail, or phone to request an appointment to speak with an Educator.

When contacting your Educator or the Academic Quality Manager, please be specific about the support you require by providing the following information, together with your personal information:

- Learning programme name and module code
- Page number and query or question
- Name and Surname
- Student or ID number
- Correct postal address and/or email address
- Correct cellular phone number and/or telephone numbers at home and work

Within two (2) business days (weekends and public holidays are excluded), an Educator will respond or make direct contact with you. The Educator's response will also be copied to the Academic Quality Manager's e-mail address for record keeping and quality control purposes.

Please Note: The Educator support facility will **not** be available between **15 December** and **15 January** annually.

6. REQUIREMENTS TO COMPLETE THE MODULE SUCCESSFULLY

6.1 General

This is an examined module. To enable students to complete this module successfully students must have the following:

- Access to TMS and the LMS
- A Course Outline, available on the LMS
- Prescribed textbook(s) and/or study guide, and, where applicable, recommended textbooks and journal readings
- A file to keep printouts of own sourced additional readings, records, copies of submitted formative assessments (assignments and/or reports) and any other materials not stored electronically for reference purposes
- Completion of the learning activities in the LMS, and that appear throughout each unit in the study guide and/or prescribed textbook; as well as the self-evaluation section that appears at the end of each study unit, referencing the aligned chapter(s), which should then be filed for reflective and preparation of summative assessment (examination)
- Submission of the formative assessments (assignments and/or participation in the tests) and summative assessments (examinations and/or assignments) within the LMS or at the Support Centre
- Commitment to viewing filmed lectures hosted in the LMS or available on TMS at the Support Centres, especially those learners who study better through audio and/or visual means
- Commitment in re-viewing filmed lectures when the sub-minima has not been obtained in formal formative assessments
- Commitment in re-viewing specific sections of the filmed lectures when a topic and/or specific unit is not yet completely mastered.

6.2 Comments on the Study Guide and/or Prescribed Textbook

- The point of departure is the module specific study guide and/or prescribed textbook.
- It is the core component of the learning material and guides the student structurally through each module.
- The learning activities contained within the study guide and/or prescribed textbook and the referencing to the self-assessment activities are of utmost importance to ensure and assess understanding of the learning content.
- All the study material required for examination purposes is contained in the study guide and/or prescribed textbook.
- Please note that students may have to consult additional sources to complete the various formative or summative assessments such as academic or business journal articles or a site visitation.

- Content in the study guide and/or prescribed textbook is presented in such a manner that students will be able to master the study material through self-study.
- The formative assessment (assignment) is presented in such a manner that students will be able to master completion through both self-study, and use of the study guide and/or prescribed textbook.
- At the end of each unit in the study guide and/or prescribed textbook are a selection of questions or self-evaluation tests and/or activities, through which students can assess their ability to master the study material and make their own meaning of the work covered in the unit.
- Above average results/marks will be allocated to answers in formative assessments (assignments and/or tests) and in the summative assessments (examinations), if the examiner notes that the selected content was studied thoroughly. Some questions may be aimed at assessing the insight students acquired into the study material with application based questions.
- Boston is developing a new and exciting platform that will further enhance access to high quality literature and academic resources – coming soon!

6.3 Prescribed Course Material

- Workflow Management 3, Boston Study Guide
- Workflow Patterns: The Definitive Guide (Information Systems); Russel,N.;van der Aalst, W.M.P.;Ter Hofstede, A.H.M;2016

6.4 Recommended Reading

- Aalst, W. & Hee, K. 2002. Workflow Management Models, Methods, and systems [e-Book]. Massachusetts. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.95.9284&rep=rep1&type=pdf [Accessed 03 February 2020]
- Van der Aalst, W. M. 1998. The application of Petri Nets to Workflow management. Journal of circuits, systems, and computers, 8(01):21-66. Retrieved from https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.30.3125&rep=rep1&type=pdf [Accessed 03 February 2020].
- Ouyang, C., Adams, M., Wynn, M.T. & ter Hofstede, A.H. 2015. Workflow management. In Handbook on Business Process Management, 1:475-506. Retrieved from https://www.researchgate.net/profile/Moe_Wynn/publication/227267696_Workflow_Management/links/0a85e5320f4b8b98e9000000/Workflow-Management.pdf [Accessed 03 February 2020]

- Any topical or related articles students may access, such as academic, newspapers, trade magazines or through the Internet.
- References made to journals and other articles and websites in the bibliographies contained in the e-prescribed textbook and recommended textbooks.

6.5 Additional Teaching and Learning Activities

- During the course of the semester, the Educators will provide students with additional teaching and learning activities. These activities are aimed at enriching students' learning experience and ensuring that students are exposed to a variety of resources.
- These learning activities are neither compulsory nor weighted, but it will be to the students' benefit to participate in these activities.

7. MODULE STRUCTURE AND ASSESSMENT SPECIFICS

7.1 Module Structure

Two different types of assessments are used in the module:

- *Formative assessments* (such as individual assignments and tests)
- *Summative assessments* (such as invigilated examinations and assignments).

In support hereof, the academic year is divided into two (2) semesters, each consisting of a twenty (20) week cycle[5] with provision for the following:

- Ten (10) weeks dedicated to teaching and learning of study units and prescribed texts
- Additionally, structured throughout, four (4) weeks dedicated to formative assessment and feedback opportunities for semester marks
- Finally, four (4) weeks, depending on examination dates, are dedicated to preparation, sitting and submission of summative assessments, plus two (2) weeks for the finalisation and release of overall module results.

This module makes use of the AS4 Assessment Strategy

- Two (2) Formative Assessment (FA) opportunities:
  - Both are formally assessed for semester marks and contribute towards the final module mark
  - Both FA1 and FA2 are in the form of a project, quiz or assignment

- Two (2) Summative Assessment (SA) opportunities:
  - Both are formally assessed for semester marks and contribute towards the final module mark
  - SA1 is in the form of an examination, project or assignment and SA2 is in the form of an assignment (Research essay)

7.2 Formative Assessments

The purpose of formative assessments is to determine where students are in relation to where they should be in terms of the specific outcomes for each module. Formative assessments assist students and Educators with making a determination as to what work will have to be revisited. Thus, formative assessments are very important for students to monitor their progress and their readiness to sit for examinations (summative assessments).

Formative assessments, ***excluding tests*** which follow the protocols of examination sittings[6] (see also section 7.3 below), must be submitted for marking by uploading to the LMS (refer to **Annexure D**) which can be accessed at the Support Centre or from home.

[5] For a detailed breakdown of the 20 week cycle, in table format, pertaining to this module, see Annexure B.
[6] Boston Student Rules and Regulations

To complete your formative assessment, please take note of the following:

Formative Assessment (FA1)

- Read the instructions for the assessment carefully before commencing with the assessment.
- Remember to provide your:
  - initials
  - surname
  - student number
  - ID number
  - correct postal address and code or email address.
- In cases of assignments, essays, research papers or reports remember the following:
  - Provide your student number at the top of each page of your assignment.
  - Make sure that pages are numbered correctly.
- Complete and submit your assessment well ahead of the due date.
- Every formative assessment must be submitted from the correct module page on the LMS. If a student submits their assessment incorrectly (for example, submitting a Company Law 1 assignment in the Business Management 1 module page), the student forfeits the grade for the assignment and will be awarded 0%. Boston does not assume responsibility for ensuring that a student's assignment reaches the correct Educator/grader. Students have to ensure that they submit their assignment correctly in order for a mark to be awarded.

Formative Assessment 2 (FA2):

- Formative Assessment 2 consists of 50 multiple choice questions. The questions can be found, along with Formative Assessment 1 and Summative Assessment 2, in the Course Outline for this module. Use the assessment as provided in your Course Outline to prepare your answers.
- It is important to note, however, that Formative Assessment 2 is not submitted in document form online. Rather, it is an online quiz to be completed on ColCampus. The online quiz will be open for student attempts at the start of the semester, and students can attempt the quiz an unlimited amount of times.
- The quiz must be completed and submitted by the due date for the Formative Assessment 2 as per the Academic Calendar. Failure to complete the quiz by that date will cause a mark of 0% to be awarded for the Formative Assessment 2 event.

7.3 Summative Assessments

Summative Assessment 1 (SA1):
Students are required to sit for a final integrative summative assessment (examination) for the module at the end of the semester. This will be completed under invigilated conditions.

To prepare for the examinations, please take note of the following:

- Study all the content as outlined in the study guide and/or prescribed textbook.
- Do not take unnecessary risks and ensure that all module content is studied thoroughly.
- Identify themes and refer to the specific outcomes and assessment criteria of each unit or chapter.
- Answer the learning activities questions provided at the end of each unit or referenced self-assessment questions per chapter in the study guide and/or prescribed textbook. This will provide an indication of the level of mastery of study material.
- Plan your studies according to the examination dates and the due date set for your assessment in **Annexure D: Academic Calendar**.

Summative Assessment 2 (SA2):
In addition to SA1, students are required to complete and submit a final integrative summative assessment (assignment) for the module at the end of the semester. This will be in the form of a research essay, which will be completed and submitted no later than the examination date of the SA1. It must be in typed format and uploaded on the LMS.

8. GRADE REQUIREMENTS

The Formative and Summative assessments are weighted according to the following guidelines:

- Formative assessment is weighted forty percent (40%) of the final module mark
- Summative assessment is weighted sixty percent (60%) of the final module mark

8.1 General

The combination of type of assessment, weighting per assessment, and overall module pass requirements are detailed in the Table below.

	Assessment/Type	Weight
Due Date: **Refer: Academic Calendar**	Formative Assessment 1	20%
Due Date: **Refer: Academic Calendar**	Formative Assessment 2	20%
Due Date: **Refer: Academic Calendar**	Summative Assessment 1	50%
Due Date: **Refer: Academic Calendar**	Summative Assessment 2	10%

8.2 Summative Assessment (Examination) Entry Requirements

There are no entry requirements for the Summative Assessments, however the overall mark will be calculated from the student's performance on the formative assessment (FA) and summative assessment (SA).

- The two FA's will count forty percent (40%) - twenty percent (20%) each - towards the overall mark.
- The two SA's in the form of a final exam will count fifty percent (50%), and a capstone project or essay will count ten percent (10%) towards the overall mark.

8.3 Requirements for Promotion and Distinction

In order to obtain a pass result for a module and be awarded the module credits (promoted), students must obtain a module average of fifty percent (50%) or higher. The average is calculated according to the weightings as indicated in the table above. For a student intending to be promoted with "Distinction", a module average of seventy-five percent (75%) or higher is required.

8.4 Supplementary Assessments

There are no supplementary opportunities available for the Formative Assessments. Students who do not qualify for promotion (i.e. have not obtained a module average of 50%), are eligible to participate in supplementary summative assessment/s.

9. STUDY PROCEDURE AND GUIDELINES FOR COMPLETING ASSESSMENTS

- Study the content of each unit and/or chapter before proceeding to the next unit and/or chapter.
- Complete the learning activities within each unit and self-assessment questions at the end of each unit and/or chapter.
- Complete and submit your assessments as soon as possible.
- Students must keep in mind that although all Educators are professional academics, they are also human. A well-presented answer, in typed or printed format, will make it easier for the examiner to read answers and to evaluate the student's knowledge.
- Answers must be neat, well organised and grammatically edited.
- Formative Assessment questions may also be used as Summative Assessment questions.
- All students with difficulties may contact the Institution and arrange to meet with the Faculty to discuss study difficulties.

10. PLAGIARISM

Plagiarism (copying) is a serious offence and is a contravention of the Copyright Act (98 of 1978) of South Africa. Students are guilty of plagiarism when they appropriate the ideas and work of others without due recognition. For detailed information about the nature of plagiarism, as well as how to avoid committing plagiarism, refer to **Annexure E**.

It is important to note that plagiarism has been committed when two or more students submit identical, verbatim copies of the same assessment and/or examination answers. The Academic Committee reserves the right to take appropriate action in cases where plagiarism is found. Should it be found that a student copied an assessment or examination answer from a fellow student, both students involved will not receive their result for that particular assessment.

11. CONCLUSION

The best way to prepare for an assessment is to work methodically and continuously throughout the semester. This requires students to:

- Plan and programme their studies, and the writing of assessments by taking into account their personal and work schedules and other commitments.
- Make a habit of planning well ahead, and noting in advance those dates and events that could affect their studies.
- Arrange study leave and study blocks well in advance.

We wish you every success in your studies!

ANNEXURE A:

EXPLANATION OF ACTION VERBS REQUIRED FOR COMPLETING ASSESSMENTS

Action verb	Description
Analyse	Describe the different parts of a topic and explain how they work together or not. Give arguments for and against each situation. A reasonable amount of insight must be shown in terms of knowledge already gained in this regard.
Apply	Show the application of acquired knowledge or given information in practice or in relation to what is asked. Use knowledge to find an answer to the question.
Comment	Give your own opinion regarding the subject matter and illustrate it through examples. Interpret and evaluate.
Compare	Contrast facts, events or problems and indicate the similarities and differences, or analyse the similarities and differences between statements, ideas, etc.
Contrast	Point out the differences between certain objects, facts, events or characteristics.
Criticise	Point out the good and bad characteristics or viewpoints and give your own opinion after taking into account all the facts.
Define	Give a clear, to the point, systematic explanation or description of concepts; to reflect the precise meaning thereof.
Describe	Give the characteristics, basic facts or results in a logical, systematic and well-structured manner. Comments and your own interpretation are not necessary.
Discuss	Give terminology and concepts in your own words with comments or your own interpretation. Compare, contrast and debate.
Design	Create and plan. Portray by means of illustrations or concrete objects. Create a model with a specific objective in mind and indicate the planning phase.
Evaluate	Make an assessment of values based on specific points of reference or criteria and give your own opinion. Do not describe. Personal viewpoints may be given.
Explain	Clarify the term, concept or topic by presenting it with your own knowledge and words. If required you can use illustrations, descriptions or simple logical layout of the facts.
Illustrate	Use a sketch, picture, diagram, graph or concrete item to explain a concept or solve a problem. This can also mean to give examples in well-chosen, descriptive words.
Motivate	Provide reasons and comment.
Summarise	State the key or most important aspects of a topic without detail, illustrations, critical analysis and discussion.

ANNEXURE B:

PROPOSED STUDY PROGRAMME

Each semester has a 14-week duration from the last day of Registrations to the start of the Examination Period. We strongly recommend that students follow the study programme for the course outlined below closely. It is important not to fall behind. Students are expected to apply a great deal of self-discipline otherwise they may be unprepared for the examination. See Table overleaf.

WORKFLOW MANAGEMENT 3 (HWFM3161)							
WEEK	**LEARNING OUTCOMES** *After studying the prescribed and recommended material for the week, you should be able to:*	**PRESCRIBED COURSEWARE**	**RECOMMENDED BOOK(S)**	**TMS (VIDEO) HOURS:**	**FORMATIVE ASSESSMENT (FA)**	**SUMMATIVE ASSESSMENT (SA)**	**OTHER**
1	**Introduction to Workflow Management** • Describe the concept of workflows, workflow management and workflow management systems. • Explain key workflow elements such as; workflow case, task, work item, activity, processes, conditions and routing. • Have an understanding of business processes within an organisational context. • Understand how work is allocated and organised using different organisational work structures. • Explain how workflow processes can be managed effectively. • Describe the types of Information Systems that are developed to support various business processes and workflows.	Unit 1 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	Take note of important dates in your Academic Calendar
2	**Modelling workflows** • Understand and apply the workflow model and its associated components: the workflow case, workflow task and workflow process. • Explain the concept of workflow routing. • Read, interpret and model workflows using petri-nets • Apply basic petri-net modelling rules and techniques. • Model workflow routing structures using petri-nets. • Map actual workflows onto petri-nets.	Unit 2 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	

WORKFLOW MANAGEMENT 3 (HWFM3161)							
WEEK	**LEARNING OUTCOMES** *After studying the prescribed and recommended material for the week, you should be able to:*	**PRESCRIBED COURSEWARE**	**RECOMMENDED BOOK(S)**	**TMS (VIDEO) HOURS:**	**FORMATIVE ASSESSMENT (FA)**	**SUMMATIVE ASSESSMENT (SA)**	**OTHER**
3	**Functions and architecture of Workflow Management Systems** • Explain the process-oriented approach to developing workflow management systems. • Understand the basic architecture for a workflow management system by referring to the workflow management reference model and identify the required technical infrastructure for workflow management systems. • Describe the notion of interfacing and interoperability for workflow management systems.	Unit 3 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	
4	**Functions and architecture of Workflow Management Systems** • Discuss the current generation workflow management products. • Discuss the future workflow management trends • Briefly explain the concept of adaptive workflows.	Unit 3 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	Take note of important dates in your Academic Calendar
5&6	**DUE: FORMATIVE ASSESSMENT 1**	Review	View/study Sample Formative Assessments	Review	Estimated preparation time: 6 hours **Due: Refer to Academic Calendar**	N/A	Submit FA1 online on *ColCampus*
7	**Analysing Workflows** • Explain the importance and benefits of analysing workflows • Describe the qualitative aspects of analysing workflows.	Unit 4 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	

WORKFLOW MANAGEMENT 3 (HWFM3161)							
WEEK	**LEARNING OUTCOMES** *After studying the prescribed and recommended material for the week, you should be able to:*	**PRESCRIBED COURSEWARE**	**RECOMMENDED BOOK(S)**	**TMS (VIDEO) HOURS:**	**FORMATIVE ASSESSMENT (FA)**	**SUMMATIVE ASSESSMENT (SA)**	**OTHER**
8	**Analysing Workflows** • Describe the qualitative aspects of analysing workflows. • Describe the quantitative aspects of analysing workflows	Unit 4 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	
9	**Roadmap for Workflow System Development** • Explain the basic principles for each methodology, as well as, explain the phases and activities associated with each methodology • Describe the relevant systems development methodologies most suited for workflow system systems development.	Unit 5 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	Take note of important dates in your Academic Calendar
10	**Roadmap for Workflow System Development** • Explain the basic principles for each methodology, as well as, explain the phases and activities associated with each methodology.	Unit 5 378 mins	Relevant Chapter(s) 126 mins	252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	
11&12	**DUE: FORMATIVE ASSESSMENT 2**	Review	View/study Sample Formative Assessments	Review	Estimated preparation time: 6 hours **Due: Refer to Academic Calendar**	N/A	Complete FA2 online on *ColCampus*

WORKFLOW MANAGEMENT 3 (HWFM3161)							
WEEK	**LEARNING OUTCOMES** *After studying the prescribed and recommended material for the week, you should be able to:*	**PRESCRIBED COURSEWARE**	**RECOMMENDED BOOK(S)**	**TMS (VIDEO) HOURS:**	**FORMATIVE ASSESSMENT (FA)**	**SUMMATIVE ASSESSMENT (SA)**	**OTHER**
13	**Heuristic Workflow Redesign** • Explain the concept of heuristics, and give an overview of the heuristic redesign rules that can be used to improve workflows. • Highlight the four main dimensions that affects the redesign of workflows	Unit 6 378 mins	Relevant Chapter(s) 126 mins	 252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	Take note of important dates in your Academic Calendar
14	**Technologies for the virtual enterprise** • Understand the concept of virtualisation and the virtual enterprise. • Explain the benefits of virtualisation. • Highlight the design considerations for the business processes that support a virtual enterprise. • Describe the business processes that define an ideal workflow management system for the virtual enterprise in an e-commerce setup.	Unit 7 378 mins	Relevant Chapter(s) 126 mins	 252 mins	Complete Self-Assessment Activities and Learning Activities 504 mins	N/A	
15 - 17	**EXAM WEEKS**	Review	View/study Sample Summative Assessments	Review	View all previous FA's with suggested solutions	Examination: **Refer to Academic Calendar**	Submit SA2 online on *ColCampus*

Annexure C: Breakdown of Prescribed Material

The prescribed textbook book for this module is:

- Workflow Patterns: The Definitive Guide (Information Systems); Russel,N.;van der Aalst, W.M.P.;Ter Hofstede, A.H.M;2016

Please note that all the chapters are prescribed. The course material is divided into 7 units. These 7 units should be studied according to your proposed study programme (Annexure B). Below, you can find a detailed breakdown of the chapters in the prescribed textbook that make up the respective units in your study programme.

WORKFLOW MANAGEMENT 3 (HWFM3161)	
Week	***CHAPTERS IN PRESCRIBED TEXTBOOK***
1	Unit 1 - Introduction to Workflow Management
2	Unit 2 - Modelling workflows
3	Unit 3 - Functions and architecture of Workflow Management Systems
4	Unit 3 - Functions and architecture of Workflow Management Systems
Formative Assessment 1 therefore covers Units 1,2 and 3	
7	Unit 4 - Introduction to Java String Manipulation
8	Unit 4 - Introduction to Java String Manipulation
9	Unit 5 - Roadmap for Workflow System Development
10	Unit 5 - Roadmap for Workflow System Development
Formative Assessment 2 therefore covers Units 4 and 5	
13	Unit 6 - Heuristic Workflow Redesign
14	Unit 7- Technologies for the Virtual Enterprise

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
	February	12	17:00	Applications Close
	February	14	13:00	Registrations Close
1	February	17		Studies Commence - Week 1
1	February	21	23:59	**HPRM441-1 FA 1 – Assignment Due Submit online via *ColCampus* no later than 21 February 23:59. Feedback given in Week 2**
2	February	28	23:59	**HPRM441-1 FA 2 – Assignment Due Submit online via *ColCampus* no later than 28 February 23:59. Feedback given in Week 3**
3	March	6	23:59	**HPRM441-1 FA 3 – Assignment Due Submit online via *ColCampus* no later than 6 March 23:59. Feedback given in Week 4**
4	March	13	23:59	**HPRM441-1 FA 4 – Assignment Due Submit online via *ColCampus* no later than 13 March 23:59. Feedback given in Week 5**
5	March	20	23:59	**HPRM441-1 FA 5 – Assignment Due Submit online via *ColCampus* no later than 20 March 23:59. Feedback given in Week 6**
6	March	27	23:59	**FA 1 – Assignment Due Submit online via *ColCampus* no later than 27 March 23:59**
				HCML2161, HFAC2B161, HMAC2B161, HAUD1161, HTAX1181, HFAC3A161, HMAC3A161, HBLE3161, HAPRD161, HFAC3B161, HMAC3B161, HTAX2181, HWDFA3171, HALP1181, HACP130-1, HLWC1181, HBMT1181, HMAC200-1 HBMN100-1, HHRD2161, HSEC2161, HPRM11615, HIND21615, HHRM3161, HLLW3161, HHRD3161, HBMN21615, HWDHR3171, HHRM100-1, HSYD2B161, HSAD3161, HWFM3161, HSPM3161, HSYD3161, HSFT3161, HPRXS3B161, HSYD100-1, HISM100-1, HNTS2B161, HNTS2C161, HNTS2D161, HTCP3161, HNTS3161, HPRXN3A161, HIPM3161, HISM3161, HENT2161, HPRM1161, HIND2161, HBMN3161, HENT3161, HBRD2161, HPRM2161, HFMN3161, HWDBM3171, HENT100-1, HBRD1161, HMKT2161, HINT2161, HMLW2161, HMKT3161, HADV3A161, HINT3A161, HADV3B161, HINT3B161, HBRD3161, HWDMM3171, HMKT100-1, HADV100-1, HEVM2B161, HPR2B161, HEVM3A161, HEVM3B161, HWDEM3171, HEVM100-1, HPR1181, , HBMN1181, HPRM1181, HADV1181, HBRD1181, HENT1181, HINT1181, HAPS1181, HEVM1181, HMLW1181, HMKT1181, HSPS1181, HSEC1181, HIND1181, HCOU1181, HHIVC1181, HSHE1181,

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
				HCNM1181, HHWPT1181, HHMP1181, HHRF1181, HODV1181, HHTD1181, HSEM1181, HSMS1181, HSOS1181, HCBB1181, HMKR1181, HTDP1181, HTTM1181, HTOP1181, HBFB1181, HSMB1181, HSAP1181, HSDJ1181, HEMK1181, HECM1181, HYFT1181, HIAP1181, HBTB1181, HWCACP1171, HWCMP1171, HWCBMP1171, HWCHCM1171, HWCHRP1181, HWCMSP1181, HWCMTM1181, HWCHRM1171, HWCMDM1181, HWCMSM1181, HWCGMT1181, HMKR3161, HIND3161, HWBCM3171, HALT130-1, HBMN130-1, HMKT130-1, HFAC131-1, HISL130-1, HLWS130-1, HBMN2181, HECO130-1, HENT130-1, HFAC130-1, HFAC132-1, HFOA100-1, HHM1181, HHRD100-1, HHS1181, HIAI1181, HICMA1181, HIPLW130-1, HIT1181, HLAA130-1, HLWH1181, HLWP130-1, HPPS1181, HPR2B181, HPSY131-1, HSOC131-1, HANT130-1, HTDS1181, HTDSA1181, HWCHAP1181, HWCHMP1181, HWCTTMP1181, HWDPR1181, HBMN102-1, HPX100-1, HTSS100-1, HPBM440-1, HPFM440-1, HPMK442-1, HPRM440-1, HPCP440-1, HHRM200-1, HPSW200-1, HAUD230-1, HFAC231-1, HFAC230-1, HMAC230-1, HTAX230-1, HPAA200-1, HTAX201-1, HPBM442-1,HPBM443-1, HPMK440-1, HPBM441-1, HPLW440-1, HPBM444-1, HBMN201-1, HDBP200-1, HISM200-1, HPXS200-1, HIMC300-1, HPR200-1, HSCI1181, HBMN230-1, HENT230-1, HPSW230-1, HLWC230-1, HLWC200-1, HLWE230-1, HGPLC230-1, HLWI230-1, HLWM200-1, HCGE130-1, HPLM1181, HPSY132-1, HPAD1181, HSOC132-1, HWCLSP1171, HBMN200-1, HENT200-1, HMKT200-1, HSEC200-1, HPXN200-1, HPRM100-1, HEVM200-1, HNTS2A161, HADV2161, HFMD1161, HLLW2161
6	March	27	23:59	**FA 1 – Online Quiz Due** **Complete online via *ColCampus* no later than 27 March 23:59**
				HCLT101-1, HCLT102-1, HSYD2A161, HCLT3171, HCLT103-1, HPRXS3A161, HASD200-1
9	April	15	17:00	FA 1 - Results Release
9	April	18	13:00	FA 1 - Results Appeal Close
10	April	22	17:00	FA 1 - Results Appeal Release
10				**HPRM441-1 FA 6 – Assignment Due** **Submit online via *ColCampus* no later than 24 April 23:59. Feedback given in Week 12**
12	May	8	23:59	**FA 2 - Assignment Due** **Submit online via *ColCampus* no later than**

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
				8 May 23:59
				HWBCM3171, HBMN130-1, HMKT130-1, HWCACP1171, HWCMP1171, HWCBMP1171, HWCHCM1171, HWCHRP1181, HWCMSP1181, HWCMTM1181, HWCHRM1171, HWCMDM1181, HWCMSM1181, HWCGMT1181, HALT130-1, HFAC131-1, HISL130-1, HLWS130-1, HWDEM3171, HWDFA3171, HWDHR3171, HSYD2A161, HBRD3161, HHRM3161, HWDBM3171, HADV3A161, HADV3B161, HINT3A161, HINT3B161, HWDMM3171, HEVM3A161, HEVM3B161, HPRXN3B161, HACP130-1, HECO130-1, HENT130-1, HFAC130-1, HFAC132-1 HIPLW130-1, HLAA130-1, HLWP130-1, HPSY131-1, HSOC131-1, HANT130-1, HWCHAP1181, HWCHMP1181, HWCTTMP1181, HWDPR1181, , HPBM440-1, HPFM440-1, HPMK442-1, HPRM440-1, HPCP440-1, HMKT3161, HPBM442-1, HPBM443-1, HPMK440-1, HPBM441-1, HPLW440-1, HPBM444-1, HWCLSP1171, HCGE130-1, HPSY132-1, HSOC132-1, HAUD230-1, HFAC231-1, HFAC230-1, HMAC230-1, HTAX230-1, HLWC230-1, HLWE230-1, HGPLC230-1, HLWI230-1,
12	May	8	23:59	**FA 2 – Online Quiz Due** **Complete online via *ColCampus* no later than 8 May 23:59**
				HENT2161, HBRD2161, HCML2161, HPRM1161, HIND2161, HMKT2161, HBMN3161, HENT3161, HFMN3161, HMKR3161, HPRM2161, HIND3161, HFAC2B161, HMAC2B161, HAUD1161, HTAX1181, HFAC3A161, HMAC3A161, HBLE3161, HAPRD161, HFAC3B161, HNTS2A161, HMAC3B161, HTAX2181, HCLT3171, HCLT103-1, HCLT101-1, HCLT102-1, HHRD2161, HSEC2161, HPRM11615, HIND21615, HLLW3161, HHRD3161, HBMN21615, HSYD2B161, HSAD3161, HWFM3161, HISM3161, HSPM3161, HPRXS3A161, HSYD3161, HSFT3161, HPRXS3B161, HTCP3161, HNTS2B161, HNTS2C161, HNTS2D161, HNTS3161, HPRXN3A161, HIPM3161, HBRD1161, HINT2161, HMLW2161, HPR2B161, HEVM2B161, HBMN2181, HPR2B181, HADV2161, HFMD1161, HLLW2161, HBMN230-1, HENT230-1, HPSW230-1, HMAC200-1
13	May	15	13:00	FA 2 - Results Release
14	May	19	17:00	FA 2 - Results Appeal Close
14	May	21	17:00	FA 2 - Results Appeal Release

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
15 to 17	May/June	25-9		**SA 1 Time Table for paper-based sit down exams only (with SA2). Accompanying SA 2's to be submitted online via *ColCampus* no later than 23:59 on day that SA1 is written**
15	May	25	09:00-11:00	HBMN21615, HBLE3161, HBMN201-1, HBMN200-1
			12:00-14:00	HBMN2181, HPAA200-1, HBMN230-1,
			15:00-17:00	HBMN3161,
	May	26	09:00-12:00	HFAC132-1, HFAC231-1
			09:00-11:00	HHRM200-1
			12:00-14:00	HADV2161,
			15:00-17:00	HPRM1161, HPRM11615, HPRM100-1,
	May	27	09:00-12:00	HFAC130-1, HFAC230-1
			12:00-14:00	HENT2161, HFAC2B161, HFAC3A161, HFAC3B161, HENT230-1,
			15:00-17:00	HENT3161, HLWE230-1, HENT200-1
	May	28	09:00-12:00	HTAX230-1
			09:00-11:00	HTAX1181, HTAX2181, , HTAX201-1
			12:00-14:00	HEVM2B161, HEVM3A161, HEVM3B161, HEVM200-1
			15:00-17:00	HBRD1161,
16	June	1	09:00-11:00	HPSW200-1, HGPLC230-1,
			12:00-14:00	HBRD2161, HIMC300-1,
			15:00-17:00	HBRD3161, HIND3161
	June	2	09:00-11:00	HWFM3161, HAPRD161
			12:00-14:00	HMLW2161, HLWM200-1
			15:00-17:00	HFMN3161
	June	3	09:00-12:00	HFAC131-1
			09:00-11:00	HINT2161, HLWI230-1,
			12:00-14:00	HINT3A161, HINT3B161,
			15:00-17:00	HPR200-1, HISM200-1
	June	4	09:00-12:00	HMAC230-1,
			09:00-11:00	HMAC2B161, HMAC3A161, HMAC3B161, HMAC200-1
			12:00-14:00	HCML2161, HSYD3161, HLWC230-1, HLWC200-1,
			15:00-17:00	HMKR3161, HFMD1161
	June	5	09:00-11:00	HPR2B181, HPR2B161,
			12:00-14:00	HLLW3161, HLLW2161
			15:00-17:00	HSEC2161, HSEC200-1,
17	June	8	09:00-12:00	HAUD230-1
			09:00-11:00	HAUD1161,
			12:00-14:00	HMKT2161, HMKT200-1
			15:00-17:00	HMKT3161, HIND21615, HSPM3161
	June	9	09:00-11:00	HHRD2161, HHRD3161, HSFT3161
			12:00-14:00	HIND2161, HADV3A161, HADV3B161, HPSW230-1

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
			15:00-17:00	HPRM2161, HIPM3161
15 to 17	May/June	25-9		**SA 1 Time Table for online exams only. No SA2's to submit. Please book to sit for these online exams as soon as you are ready. These exams must be completed within the exam period.**
				HCLT101-1, HCLT102-1, HCLT2171, HALP1181, HADV1181, HBRD1181, HENT1181, HINT1181, HAPS1181, HEVM1181, HMLW1181, HMKT1181, HSPS1181, HBMN1181, HSEC1181, HLWC1181, HIND1181, HCOU1181, HHIVC1181, HSHE1181, HCNM1181, HHWPT1181, HHMP1181, HHRF1181, HODV1181, HHTD1181, HSEM1181, HSMS1181, HSOS1181, HCBB1181, HMKR1181, HTDP1181, HTTM1181, HTOP1181, HBFB1181, HSMB1181, HSAP1181, HSDJ1181, HEMK1181, HECM1181, HYFT1181, HPRM1181, HIAP1181, HBTB1181, HMSP1161, HMSP2161, HPR1181, HHS1181, HBMT1181, HPRXS3A161, HHM1181, HIAI1181, HICMA1181, HIT1181, HLWH1181, HPPS1181, HTDS1181, HTDSA1181, HSCI1181, HPLM1181, HPAD1181, HCLP3171
				SA 1 Time Table for open book online exams with SA2's to submit. Please book to sit for these online exams as soon as you are ready. These exams must be completed on the stipulated dates as indicated below. Remember to upload your SA2 via ColCampus by the stipulated due date no later than 23:59.
17	June	3	09:00-12:00	HPBM440-1
	June	5	09:00-12:00	HPMK440-1
	June	9	09:00-12:00	HPBM443-1
17	June	9	23:59	**SA 1 & SA2 Time Table for projects/internship/assignments only. Submit online via *ColCampus* no later than 9 June 23:59**
				HHRM3161, HPRXN3B161, HPRXS3B161, HSAD3161, HSYD2A161, HWDFA3171, HWDHR3171, HWDBM3171, HWDMM3171, HWDEM3171, HWBCM3171, HWCACP1171, HWCMP1171, HWCBMP1171, HWCHCM1171, HWCHRP1181, HWCMSP1181, HWCMTM1181, HWCHRM1171, HWCMDM1181, HWCMSM1181, HWCGMT1181, HWCHAP1181, HWCHMP1181, HWCTTMP1181, HWDPR1181, HPX100-1, HPFM440-1, HPMK442-1, HPRM440-1, HPCP440-1, HPBM442-1, HPBM441-1, HPLW440-1, HPRM441-1, HPBM444-1, HASD200-1, HPXS200-1, HWCLSP1171,

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
15 to 17	May/June	25-9		**SA 1 Time Table for online exams with SA2's to submit.** **Please book to sit for these online exams as soon as you are ready. These exams must be completed within the exam period. Remember to upload your SA2 on ColCampus by the stipulated due date.**
				HALT130-1, HBMN130-1, HMKT130-1, HACP130-1, HCLT3171, HCLT103-1, HNTS2B161, HNTS2C161, HNTS2D161, HNTS3161, HPRXN3A161, HSYD2B161, HMKT100-1, HEVM100-1, HBMN100-1, HADV100-1, HENT100-1, HHRM100-1, HSYD100-1, HISM100-1, HISL130-1, HLWS130-1, HISM3161, HECO130-1, HENT130-1, HFOA100-1, HHRD100-1, HIPLW130-1, HLAA130-1, HLWP130-1, HPSY131-1, HSOC131-1, HANT130-1, HBMN102-1, HTSS100-1, HCGE130-1, HPSY132-1, HSOC132-1, HNTS2A161, HTCP3161, HPXN200-1, HDBP200-1,
19	June	26	13:00	SA 1 & 2 Results Release
20	June	30	17:00	SA 1 & 2 Results Appeal Close
20	July	3	13:00	SA 1 & 2 Results Appeal Release
21	July	6-10		**Supplementary SA 1 Time Table for paper-based sit down exams only (with Supplementary SA2).** **Accompanying Supplementary SA 2's to be submitted online via *ColCampus* no later than 23:59 on day that SA1 is written**
	July	6	09:00-12:00	HTAX230-1,
			09:00-11:00	HBMN3161, HBMN21615, HBMN230-1, HBMN2181, HBLE3161, HIPM3161,
			12:00-14:00	HCML2161, HPRM2161, HTAX1181, HTAX2181, HTAX201-1, HLWC230-1, HLWC200-1, HBMN200-1
			15:00-17:00	HPAA200-1, HADV2161, HFMD1161
	July	7	09:00-12:00	HFAC132-1, HFAC231-1
			09:00-11:00	HENT2161, HENT3161, HBMN201-1, HENT230-1, HLWI230-1, HENT200-1
			12:00-14:00	HFMN3161, HFAC2B161, HFAC3A161, HFAC3B161
			15:00-17:00	HIND2161, HIND3161, HBRD3161, HEVM2B161, HEVM3A161, HEVM3B161, HBRD1161, HPSW200-1, HEVM200-1
	July	8	09:00-12:00	HFAC131-1, HFAC130-1, HFAC230-1
			09:00-11:00	HBRD2161, HMKR3161, HWFM3161, HAPRD161, HISM200-1,
			12:00-14:00	HMKT2161, HMLW2161, HINT2161, HPSW230-1, HLWM200-1

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
			15:00-17:00	HHRM200-1, HPR200-1, HLWE230-1
	July	9	09:00-12:00	HMAC230-1
			09:00-11:00	HMAC2B161, HMAC3A161, HMAC3B161, HGPLC230-1, HMAC200-1
			12:00-14:00	HPRM1161, HPRM11615, HINT3A161, HIMC300-1,HINT3B161, HHRD2161, HHRD3161, HSFT3161
			15:00-17:00	HMKT3161, HSYD3161, HMKT200-1, HPRM100-1,
	July	10	09:00-12:00	HAUD230-1
			09:00-11:00	HSEC2161, HADV3A161, HSEC200-1, HADV3B161, HPR2B181, HPR2B161,
			12:00-14:00	HLLW3161,HLLW2161, HAUD1161, HIND21615, HSPM3161,
21	July	6-10		**Supplementary SA 1 Time Table for online exams only. No Supplementary SA2's. Please book to sit for these online exams as soon as you are ready. These exams must be completed within the exam period.**
				HCLT101-1, HCLT102-1, HCLT2171, HALP1181, HADV1181, HBRD1181, HENT1181, HINT1181, HAPS1181, HEVM1181, HMLW1181, HMKT1181, HSPS1181, HBMN1181, HSEC1181, HLWC1181, HIND1181, HCOU1181, HHIVC1181, HSHE1181, HCNM1181, HHWPT1181, HHMP1181, HHRF1181, HODV1181, HHTD1181, HSEM1181, HSMS1181, HSOS1181, HCBB1181, HMKR1181, HTDP1181, HTTM1181, HTOP1181, HBFB1181, HSMB1181, HSAP1181, HSDJ1181, HEMK1181, HECM1181, HYFT1181, HPRM1181, HIAP1181, HBTB1181, HMSP1161, HMSP2161, HPR1181, HBMT1181, HPRXS3A161, HHM1181, HHS1181, HIAI1181, HICMA1181, HIT1181, HLWH1181, HPPS1181, HLWH1181, HTDS1181, HTDSA1181, HSCI1181, HPLM1181, HPAD1181, HCLP3171
				Supplementary SA 1 Time Table for open book online exams with Supplementary SA2's to submit. Please book to sit for these online exams as soon as you are ready. These exams must be completed on the stipulated dates as indicated below. Remember to upload your Supplementary SA2 via ColCampus by the stipulated due date no later than 23:59.
21	July	6	09:00-12:00	HPBM440-1
	July	8	09:00-12:00	HPMK440-1
	July	10	09:00-12:00	HPBM443-1
21	July	6-10		**Supplementary SA 1 Time Table for online exams with Supplementary SA2's to submit. Please book to sit for these online exams as soon as you are ready. These exams must be**

Academic Calendar Sem A 2020				
SEMESTER: JANUARY-JULY				
Week	**Month**	**Date**	**Time**	**Activity**
				completed within the exam period. Remember to upload your SA2 on ColCampus by the stipulated due date.
				HALT130-1, HBMN130-1, HMKT130-1, HACP130-1, HCLT3171, HCLT103-1, HNTS2B161, HNTS2C161, HNTS2D161, HNTS3161, HISM3161, HPRXN3A161, HSYD2B161, HMKT100-1, HEVM100-1, HBMN100-1, HADV100-1, HENT100-1, HHRM100-1, HSYD100-1, HISM100-1, HISL130-1, HLWS130-1, HECO130-1, HENT130-1, HFOA100-1, HHRD100-1, HIPLW130-1, HLWP130-1, HPSY131-1, HSOC131-1, HANT130-1, HBMN102-1, HTSS100-1, HLAA130-1, HCGE130-1, HPSY132-1, HSOC132-1, HNTS2A161, HTCP3161, HPXN200-1, HDBP200-1,
21	July	10		**Supplementary SA 1 & Supplementary SA2 Time Table for projects/internship/assignments only.** **Submit online via *ColCampus* no later than 10 July 23:59**
				HHRM3161, HPRXN3B161, HPRXS3B161, HSAD3161, HSYD2A161, HWDFA3171, HWDHR3171, HWDBM3171, HWDMM3171, HWDEM3171, HWBCM3171, HWCACP1171, HWCMP1171, HWCBMP1171, HWCHCM1171, HWCHRP1181, HWCMSP1181, HWCMTM1181, HWCHRM1171, HWCMDM1181, HWCMSM1181, HWCGMT1181, HWCHAP1181, HWCHMP1181, HWCTTMP1181, HWDPR1181, HPX100-1, HPFM440-1, HPMK442-1, HPRM440-1, HPCP440-1, HPBM442-1, HPBM441-1, HPLW440-1, HPRM441-1, HPBM444-1, HASD200-1, HPXS200-1, HWCLSP1171,
23	July	21	17:00	Supplementary SA 1 & 2 Results Release
23	July	24	13:00	Supplementary SA 1 & 2 Results Appeal Close
25	July	29	17:00	Supplementary SA 1 & 2 Results Appeal Release

INFORMATION SHEET: PLAGIARISM

This document serves as a source of information regarding the nature of plagiarism, why it is important to avoid, and how to ensure that you do not commit plagiarism.

Definition

Plagiarism is the reproduction of somebody else's work or ideas, and presenting it as your own without giving recognition to that person (Larney, 2012:5). Any piece of work that you present under your own name must indeed be your own. If you used someone else's ideas or words without citing that person's work, you have committed plagiarism.

Importance

If you have used someone else's words or ideas in your work without giving them due credit, that amounts to you presenting that person's ideas as your own (AAUP, 2015:6). This affects the academic integrity of your work, and can also be considered an infringement on the copyright of the author whose work you used. It is therefore very important to avoid plagiarism when you present academic work.

Examples

Plagiarism comes in many forms and is not limited to the direct quotation of another person's work without giving him credit. The most important cases of plagiarism are set out below:

Plagiarism of Ideas

> ***Definition:*** Appropriating an idea (e.g. an explanation, a theory, a conclusion, a hypothesis, a metaphor) in whole or in part, or with superficial modifications, without giving credit to its originator (Roig, 2011:4)
>
> ***Example:*** Original text: "Customer involvement is a fairly novel phenomenon in the marketplace. By involving customers in the service delivery process, innovation and productivity is improved." (Axcell et al, 2015:217)

Plagiarism of idea: "If one involves customers in the process of service delivery, this generally increases innovation and productivity – even though this idea is still a relatively new and foreign one in the marketplace."

This is plagiarism because the idea of Axcell et al was taken directly without providing a reference to their work. The plagiariser only changed "novel idea" to "a relatively new and foreign idea" to his own version – but this does not represent his own thoughts. It is the idea of Axcell et al written in a slightly different way.

This can be corrected by adding a reference to the source into work. For example: "If one involves customers in the process of service delivery, this generally increases innovation and productivity – even though this idea is still a relatively new and foreign one in the marketplace (Axcell et al, 2015:217).

Plagiarism of Text

Definition: Copying a portion of text from another source without giving credit to its author and without enclosing the borrowed text in quotation marks (Roig, 2011:6).

Example: Original text: "The period from 1652 to 1870 was characterized by colonial settlement and slavery. 1870 – 1924 bought the discovery of gold and diamonds, limited trade unionism, industrialization and oppression of black workers. From 1924-1956 the Industrial Conciliation Act was promulgated which created dispute settlement mechanisms through establishing industrial councils." (Thompson, 2015: 94).

Plagiarism of text: The period from 1652 to 1870 was characterized by colonial settlement and slavery. 1870 – 1924 bought the discovery of gold and diamonds, limited trade unionism, industrialization and oppression of black workers.

This is plagiarism because you are quoting the work of Thompson directly without putting it in between quotation marks, and without providing a reference to his work.

This can be corrected by adding a reference to the source into the text and placing the sentence in between quotation marks. For example: "The period from 1652 to 1870 was

characterized by colonial settlement and slavery. 1870 – 1924 bought the discovery of gold and diamonds, limited trade unionism, industrialization and oppression of black workers" (Thompson, 2015: 94).

Plagiarism by Improper Paraphrasing

Definition: Taking portions of text from one or more sources, paraphrasing what was said, and then adding some of your own ideas to that text to pass the entire thought off as your own. (Roig, 2011:7).

Example: Original text: "The entrepreneur has to be sensitive to opportunities or problems arising in the business or outside. This awareness is the stimulus for creative ideas. It is also important that one should have clarity concerning the nature of the problem in order to develop a creative solution. Therefore, it is of utmost importance to define the problem clearly." (De Beer et al., 2008, 168)

Plagiarism by improper paraphrasing: It is important for an entrepreneur to be sensitive to opportunities as well as problems that occur inside or outside the business. Such awareness will allow him to come up with creative ideas. Therefore it is important to pursue the continuous generation of creative ideas.

This is plagiarism because you merely rephrasing the idea of De Beer et al. and then adding your own sentence to that, without giving reference to the authors for the first part of your text.

This can be corrected by adding a reference to the source after the first part of this paragraph. For example: "It is important for an entrepreneur to be sensitive to opportunities as well as problems that occur inside or outside the business. Such awareness will allow him to come up with creative ideas" (De Beer et al., 2008: 168). Therefore it is important to pursue the continuous generation of creative ideas.

Tips to avoid plagiarism:

1) Ensure that you understand the source that you are using and the ideas that it is trying to convey. A good rule of thumb is that if you can repeat what you have read in your own words, you most likely have a good understanding of that work. And if you can do that – you can be sure that you are writing your own ideas.
2) Refer to a few sources (or at least more than one) before starting to write your own work. This allows you to develop your own thoughts and opinions on the subject matter.
3) Be sure to cite every source that you use. When you are collecting sources, ensure that you have all the relevant detail for the source that you need to cite it correctly – refer to the referencing guide in this regard
4) Use quotation marks around text that you have taken directly from an original source.
5) Always include a list of references at the end of your work, with the relevant detail of all the sources you referred to in your text.
6) Read and edit your work to make sure that you can confidently present it as your own words and ideas.

Useful sources if you want more information on plagiarism

UT-Austin *Academic Integrity* "A Brief Guide to Avoiding Plagiarism" (2012) Available at: [http://www.utexas.edu/cola/cwgs/_files/pdf-4/ai2012.pdf]

The referencing guide booklet is available in the Library module on COLcampus.

LIST OF REFERENCES:

AAUP 2015. Policy Documents and Reports 11ed. Baltimore: Johns Hopkins University Press.

Axcell S., Benedict E., Pria S.D., Kharsany K., Meyer S., Williams S.J. 2015. Marketing Management 3. Cape Town: EDGE Learning Media.

De Beer A.A., Zeelie D., Groenewald H., Watson H., Rossouw D., Jacobs H. 2008. Entrepreneurial Skills. Cape Town: Juta and Co Ltd.

Roig, A. 2011. Avoiding Plagiarism, Self-Plagiarism, and Other Questionable Writing Practices: A Guide to Ethical Writing. ORI. Avaialble at: [http://ori.hhs.gov/avoiding-plagiarism-self-plagiarism-and-other-questionable-writing-practices-guide-ethical-writing. Last accessed: 9/11/2015]

Thompson, D. 2015 Company Law 2. Cape Town: EDGE Learning Media.

HIGHER EDUCATION PROGRAMMES

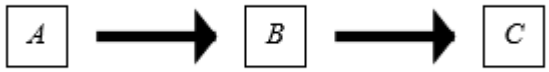
Academic Year 2020:	January - June
Formative Assessment 1:	Work Flow Management 3 (HWFM3161)
NQF Level, Credits:	6, 21
Weighting:	20%
Assessment Type:	Essay Questions
Educator:	C. Muranda
Examiner:	O. Dyantyi
Due Date:	27 March 2020
Total:	100 marks

Instructions:

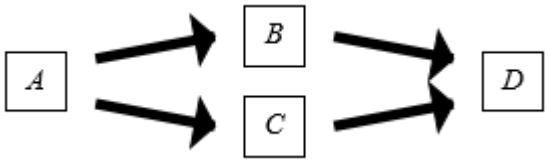
- This formative assessment consists of FOUR (4) Questions.
- It is based on Unit 1 to Unit 4 (Ch.1-Ch.3) of your prescribed HWFM3161 courseware.
- All sections are compulsory.

Question 1 **[12 marks]**

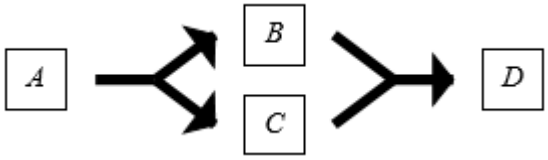
For each of the following workflow routing constructs, ascertain the name and briefly explain the construct.



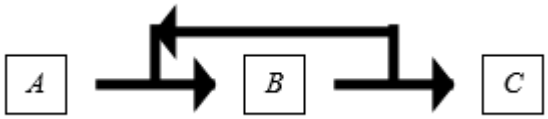
1.1. (3 marks)



1.2. (3 marks)



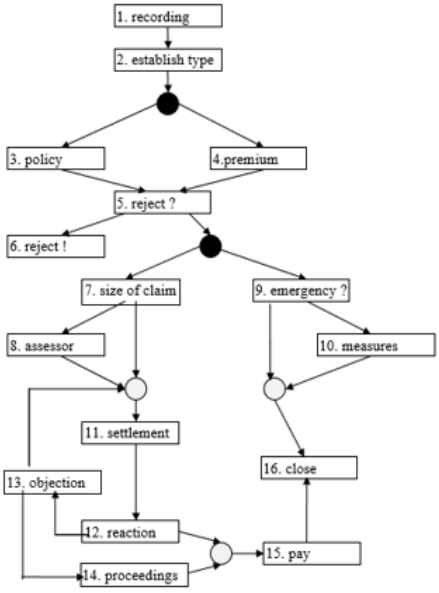
1.3. (3 marks)



1.4. (3 marks)

Question 2 **[30 marks]**

A process consists of several tasks, which need to be carried out, and a set of conditions, which determine the order of the tasks. As an example of a process, examine the following (fictional) insurance company dealing with a claim. See and learn about the tasks involved in the insurance claim process and how the process is represented using a Petri net.



1. Recording the receipt of the claim;
2. Establishing the type of claim (for example, fire, motor vehicle, travel, professional);
3. Checking the client's policy, to confirm that it does in principle cover what has been claimed for;
4. Checking the premium, to confirm that payments are up to date;
5. Rejection, if task 3 or 4 has a negative result;
6. Producing a rejection letter;
7. Estimating the amount to be paid, based upon the claim details;
8. Appointment of an assessor to research the circumstances of the damage and to establish its value;
9. Consideration of emergency measures to limit further damage or relieve distress;
10. Provision of emergency measures if approved as part of task 8;
11. Establishment or revision of amount to be paid and offer to client;
12. Recording of client's reaction: acceptance or objection;
13. Assessment of objection and decision to revise (task 11) or to take legal proceedings (task 14);
14. Legal proceedings;

Other Business processes or workflows you can choose from include:

HR: Workflow applications that automate and execute HR-related procedures such as Starter, Leaver, Annual Review.

Banking: A workflow for a new client account, an approval cycle for an investment decision, a client approval cycle for a mortgage or loan request.

Manufacturing: Quality Assurance workflows such as non-conformities, complaints, requests, and preventive maintenance.

Customer Service: A workflow that assigns tasks to agents who handle customer requests.

Defence/Emergency: A workflow that manages a situation in a situation room.

Travel: A workflow that manages a client vacation, hotel reservation, flight reservation, etc. for a travel agency.

2.1 Using the same format in the example of the insurance claim process, choose a business process of your choice, outline the tasks involved in the process. (12 marks)

2.2 Model the business process you mentioned in question 2.1 using Petri net diagrammatic tool showing all the tasks involved. (15 marks)

2.3 What are the THREE products of workflow management systems? (3 marks)

Question 3 **[20 marks]**

According to your study guide, the organisation of work is becoming more and more difficult. Information systems are therefore designed to support the management of processes.

Briefly explain each of the following information systems and in addition to your explanation provide two (2) examples of such systems in the area (Banking, Human Resource, Manufacturing, Customer Service, Travel, etc.) of your choice.

3.1 Transaction-processing systems (6 marks)

3.2 Knowledge-management systems (6 marks)

3.3 Decision-support systems (6 marks)

3.4 What would you say is the reason Information Systems are designed for business processes? (2 marks)

Question 4 **[38 marks]**

4.1 Briefly, explain the categories of processes within the organisation and their links between each other. (9 marks)

4.2 When looking at the process-oriented approach to designing Information Systems, explain the requirements that the information system must meet for it to be structured, in such a way that it can respond to possible future changes (8 marks)

4.3 Briefly discuss the components of a workflow management system in reference to the Workflow Management Coalitions' reference model. (21 marks)

HIGHER EDUCATION PROGRAMMES

Academic Year 2020:	January - June
Sample Formative Assessment 1:	Workflow Management 3 (HWFM3161)
NQF Level, Credits:	6, 21
Weighting:	20%
Assessment Type:	Essay Questions
Educator:	C. Muranda
Examiner:	H Pienaar
Due Date:	Sample
Total:	100 marks

Instructions:

- This assessment consists of Questions 1 - 3.
- It is based on Units 1 – 3 of your prescribed HWFM3161 courseware
- All questions are compulsory.

Question 1 **(30 marks)**

The list of acronyms below are well known in the industry. Describe the following acronyms and briefly explain:

1.1 DesM

1.2 DiscM

1.3 SelM

1.4 MerM

1.5 CompM

1.6 DesCM

1.7 MerCM

1.8 ConCM

1.9 RefM

1.10 EnM

Question 2 **(20 marks)**

Many businesses make use of business process modelling. Discuss five objectives of business processing in detail.(In your answer you must refer to the Business process definition, Business process enactment, ect)

Question 3 **(50 marks)**

3.1 Discuss the history the BPEL process. (10 marks)

3.2 Present your understanding of each element in the BPEL process structure and explain the purpose of each element. (40 marks)

HIGHER EDUCATION PROGRAMMES

MEMORANDUM

Academic Year 2020	January - June
Sample Formative Assessment 1:	Workflow Management 3 (HWFM3161)
NQF Level, Credits:	6, 21
Weighting:	20%
Assessment Type:	Essay Questions
Educator:	C. Muranda
Examiner:	H Pienaar
Due Date:	Sample
Total:	100 marks

Instructions:

- This assessment consists of Questions 1 - 3.
- It is based on Units 1 – 3 of your prescribed HWFM3161 courseware
- All questions are compulsory.

Question 1 **(30 marks)**

The list of acronyms below are well known in the industry. Describe the following acronyms and briefly explain:

(note to grader: One mark for the description and two marks for the explanation, award a maximum of 3 marks per question.)

1.1 DesM

1.2 DiscM

1.3 SelM

1.4 MerM

1.5 CompM

1.6 DesCM

1.7 MerCM

1.8 ConCM

1.9 RefM

1.10 EnM

1. Use case design model✓ (DesM) refers to the creation of a process model from scratch✓by a human. This is still the most common way to create models. The hand-made model may be descriptive, normative, or executable. ✓

2. Use case discover model from event data✓ (DiscM) refers to the automated generation of a process model✓ using process mining techniques. The goal of process mining is to extract knowledge about a particular (operational) process from event logs.✓

3. Use case select model from collection✓ (SelM) refers to the retrieval of existing process models✓. Based on keywords or process structures✓.

4. Use case merge models✓ (MerM) refers to the scenario where different parts of different models are merged into one model✓. Unlike classical composition, the original parts maybe indistinguishable. ✓

5. Use case compose model✓ (CompM) refers to the situation where different models are combined into a larger model✓. The different parts can be related to the original models used in the composition. ✓

6. Use case design configurable model✓ (DesCM). A configurable process model represents a family of process models✓, that is, a model that through configuration can be customized for a particular setting. ✓

7. Use case merge models into configurable model✓ (MerCM) refers to approaches that obtain a configurable model✓ by merging example members of a process family into a model. ✓

8. Use case configure configurable model✓ (ConCM) refers to the scenario where a concrete model is obtained by selecting a process variant.✓ From a family of process variants one member is selected✓.

9. Use case refine model✓ (RefM) describes the scenario of converting a model tagged with "DIN"✓ into a model tagged with "E".✓

10. Use case enact model✓ (EnM) takes as input a model✓ and as output a running system. ✓

Chapter 1, page 12

Question 1. Assessed the following learning outcome(s):
- Application of BPM

Question 2 **(20 marks)**

Many businesses make use of business process modelling. Discuss five objectives of business processing in detail.(In your answer you must refer to the Business process definition, enactment, ect) **(note to grader: One mark for the description and three marks for the explanation, award a maximum of 4 marks per objective.)**

Business process definition✓

One of the major benefits offered by the act of business process modeling is that it provides a guided approach to gaining an understanding of the most important aspects of a business process✓ and documenting them in a form that alleviates any potential for ambiguous interpretation✓. The notion of modeling the dynamic aspects of processes is not particularly novel and has been undertaken in the software design field for many years; however, it is only with the advent of richer, multi-perspective business process modeling techniques that the accurate capture of the broader range of aspects relevant to business processes has been possible in a single model✓.

Business process enactment✓

Although in some cases business process modeling may be an objective in its own right✓, more generally, the development of such models is an intermediate step to their ultimate automation using some form of BPMS✓. As such, the business process model serves as a design blueprint for the subsequent software development and deployment activity. It may also serve as a means of identifying the most appropriate enactment technology. ✓

Business process communication✓

The use of business process models provides an effective means of communicating their intention and operation in an unambiguous way to the various parties involved in their operation✓. As the underlying technology matures and the ambition level associated with business process automation initiatives increases✓, this becomes increasingly important as often the parties involved are not located within a single department or at a single operating location within a single organization but increasingly are located across a variety of different geographic locations and may even be members of different organizations(e.g., upstream suppliers or downstream customers). Business processes increasingly span organizational boundaries, and cross-organizational business process automation offers opportunities for enhancing and optimizing these processes in ways that were previously not possible. As the various parties to such a process will frequently utilize differing enabling technologies, business process models provide a way of communicating the operational expectations associated with these processes in an organizationally and technologically independent way. ✓

Business process analysis✓

Business process models provide a good starting point for all kinds of analyses✓. For example, there me striking similarities between simulation models and the models used to enact processes using a WFM or BPM system✓. In the context of business process modelling, the two main types of analysis are verification and performance analysis. ✓

Business process compliance✓ Many organizations have deployed automated business in recent years✓; however changing business conditions and the relative inflexibility of the enabling technologies often means that the actual business process enacted by members of the organization on a day-to-day basis does not necessarily match that described in the original or intended business process model✓. Nonetheless, many corporate quality and risk management systems assume adherence to a given set of operating norms, which are often based on process models. Recent legislation such as the Sarvanes-Oxley Act required that U.S organizations demonstrate compliance with a set of standard business processes in order to mitigate potential business risk. ✓

Chapter 2, page 35-37

Question 2. Assessed the following learning outcome(s):
- Knowledge of why the use of BPM

Question 3 **(50 marks)**

3.1 Discuss the history the BPEL process. (10 marks)

Web Services Business process Execution Language (BPEL) is an executable language for describing web service interactions✓. It has its genesis in the WSFL and XLANG initiatives championed by Microsoft and IBM✓, respectively, who recognized the need for such a language✓ and, faced with the increasing prominence of another initiative in the area (BPML),decided to amalgamate their efforts✓. The result was BPEL4WS, which was first released in 2003 and has met with broad support from vendors✓. Soon after, in conjunction with a group of vendors, the BPEL proposal was submitted to OASIS as part of a formal standardization effort✓, and they have overseen its development from this point. The current release is termed WS-BPEL 2. 0✓, in line with other web services standards that OASIS administers✓. BPEL is intended as an orchestration language✓, and consequently it describes web service interactions from the viewpoint of a single business process✓.

3.2 Present your understanding of each element in the BPEL process structure and explain the purpose of each element. (40 marks)

(Note to grader: One mark for the description and 4 marks for the explanation, award a maximum of 5 marks per element.)

<extensions>✓ describe language extensions used in the context of the BPEL process✓. These may range from new types or elements through to new activity definitions✓ and provide a mechanism for restricting or further extending current runtime behaviour✓. Each <extension> element identifies the namespace in which the extension is located. ✓

<import>✓ provides a means for a BPEL process to include any externally defined XML Schema✓ or WSDL definitions✓ on which it relies. These may include partner link types ✓ (the notion of partner links is described below), variable properties, and property aliases described elsewhere✓.

<partner Links>✓ are a key feature of a BPEL process✓. They describe the individual conversational links that a process has with various external partner services during its operation✓. The services fulfill specific functional requirements that are required during process execution✓. Each link identifies the service interaction (s) that occur between the process✓ and its partner and the role that each of them is expected to perform during the course of an interaction✓.

<message Exchanges>✓ are used to distinguish between distinct conversational inter-actions that an instance of a BPEL process may have with a partner service✓. Because all conversations are based on incoming message receival activities and corresponding reply activities within a BPEL process✓, and it is possible for distinct conversations to occur with the same partner simultaneously✓, individual <messageExchange> constructs facilitate the pairing of receival and reply activities✓, thus enabling distinct conversations to be disambiguated✓.
<variables>✓ provide the containers for storing the state information✓ relevant to a process✓. This can be messages received from or intended for transmittal to a partner✓ or it can be data elements used during the execution of a business process✓.
<correlationsets>✓ provide a means of tying related incoming and outgoing messages from a business process to a given partner service into a conversation✓. A <correlationset>✓ consists of a list of message properties that remain fixed during the course of a given conversation and can therefore be used for correlation purposes✓. When the first message in a conversation is sent, the values of the message properties are fixed✓. By including these properties in subsequent message interactions, the correlation of messages into a conversation by both the BPEL process and the partner service is possible✓.
<fault Handlers>✓ provides a means of associating error handling strategies with a BPEL process✓. Termed fault handlers, these strategies may apply to a specific scope within a process or to the entire process✓. They can respond to nominated faults generated by the execution of the BPEL engine or raised during the execution of activities within the process✓. When a fault is detected during the execution of a process, execution is suspended within the scope of the process to which the fault handler corresponds and control passes to the relevant fault handler✓. Once invoked, fault handlers have a range of options at their disposal for dealing with a detected fault✓ : they can handle it them selves and then resume execution✓, they can invoke a compensation handler to try and mitigate the effects of the fault✓, they can trigger a fault at a higher level in the process✓, or they can cause execution of the associated scope or even the entire process to be halted✓.
<event Handlers>✓ are analogous to fault handlers✓; however, they have a distinct pur-

pose and consequently operate in a different manner✓. Event handlers provide a means of responding to events arising during the operation of a BPEL process that need to be dealt with✓ but are not necessarily error-related✓ (e. g., a timeout occurring). Event handlers can be associated with either a specific scope within a process or the entire process✓. They can be

triggered by either the receipt of a specific message type or the occurrence of a nominated event✓, such as an alarm. When invoked, event handlers run concurrently with the process✓. They can deal with the detected event in a number of ways, including resolving the issue themselves, cancelling execution ✓in the associated scope✓, propagating the detected event to a higher level in the process, or terminating the process✓.

Chapter 3, page 73-75

Question 3. Assessed the following learning outcome(s):
- Knowledge of BPEL

HIGHER EDUCATION PROGRAMMES

Academic Year 2020:	January - June
Formative Assessment 2:	Workflow Management 3 (HWFM3161)
NQF Level, Credits:	6, 21
Weighting:	20%
Assessment Type:	Multiple Choice Questions
Educator:	C. Muranda
Examiner:	O. Dyantyi
Due Date	08 May 2020
Total:	50 marks

Instructions:

- This assignment consists of 50 multiple choice questions.
- It is based on Units 5 - 8 of your prescribed HWFM3161 courseware
- All questions are compulsory.

Question 1 **(1 mark)**

You have been tasked to develop a Workflow Management System for your Local Clinic.

In which one of the following Interactive Process Oriented System Development (IPSD) processes, is the preparation of integration and acceptance test done?

A. Construction.
B. Architecture.
C. Component design.
D. Requirements.

Question 2 **(1 mark)**

You work as a junior systems analyst; a client has asked you to develop a workflow management system for their furniture delivery company. The client wants the system to be operational as soon as possible, at a reduced cost, not compromising quality and with a high degree of user participation.

Which one of the following systems development methods is best suitable?

A. Business Process Re-engineering.
B. Interactive, Process-oriented System Development (IPSD).
C. Rapid Application Development.
D. Joint Application Design (JAD)

Question 3 **(1 mark)**

In the Rapid Application Development (RAD) approach, in which one of the following phases, is the system's functionality blueprinted?

A. Delivery.
B. Planning.
C. Construction.
D. User Design.

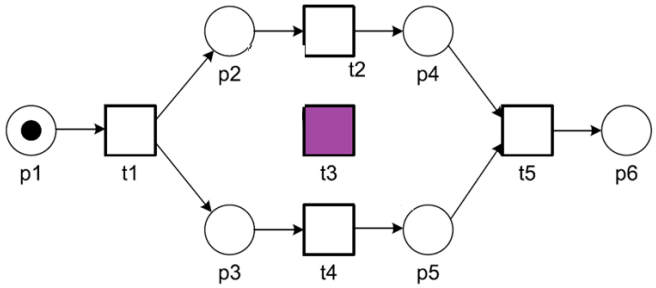
Question 4 **(1 mark)**

A workflow net is able to reach every single transition in the workflow with no dead transition.

In which qualitative aspect of workflow is this workflow net?
A. Unbound.
B. Liveness.
C. Reachability.
D. Correctness.

Question 5 **(1 mark)**

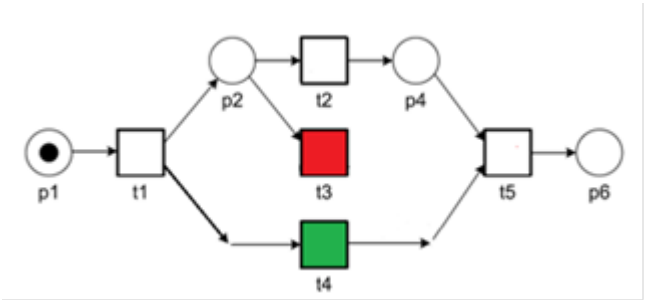
Which one of the following options best explains the workflow net shown in the picture?



A. A workflow net that contains a trapped task.
B. A workflow net that contains a unique task.
C. A dead-end workflow net
D. A workflow net that contains a dead task.

Question 6 **(1 mark)**

Which one of the following options best explains the workflow net shown in the picture?



A. A workflow net that contains tasks without input and/or output conditions.
B. A workflow net that contains tasks with input and/or output conditions.
C. A workflow net that contains tasks with ONLY input conditions.
D. A workflow net that contains tasks with ONLY output conditions.

Question 7 **(1 mark)**

Which one of the following options is best to use when it comes to quantitative aspects of a defined workflow such as completion times of cases, the number of cases that can be processed per time unit?

A. Performance analysis.
B. Qualitative method.
C. Quantitative method.
D. Workflow Evaluation.

Question 8 **(1 mark)**

Which one of the following analysis techniques represents the various states of the workflow case using probability distributions?

A. Queuing theory.
B. Simulation**.**
C. Probability theory.
D. Markov chain.

Question 9 **(1 mark)**

In which phase of the Interactive Process-oriented System Development (IPSD), is the project plan drafted and project team appointed during the development and implementation of a workflow management system?

A. Requirements.
B. Diagnosis.
C. Construction.
D. Preparation.

Question 10 **(1 mark)**

You have been tasked with the work of developing and implementing a workflow management system using the Interactive Process-oriented System Development (IPSD) approach.

In which one of the following phases, is the delivering of use cases possible?

A. Architecture.
B. Construction.
C. Enactment.
D. Process redesign.

Question 11 **(1 mark)**

Which one of the following development methodologies of developing a workflow management system has its emphasis placed upon project targets and not so much upon performing activities?

A. Business Process Re-engineering.
B. Interactive Procedure oriented System Development.
C. Rapid Application Development.
D. Interactive Process-oriented System Development.

Question 12 **(1 mark)**

Which one of the following methods for workflow analysis is concerned with establishing the logical correctness of a defined process?

A. Quantitative method.
B. Qualitative method.
C. Rapid Application Development.
D. Markovian analysis.

Question 13 **(1 mark)**

You have been tasked to develop a workflow management system for a client who is running a website development company.

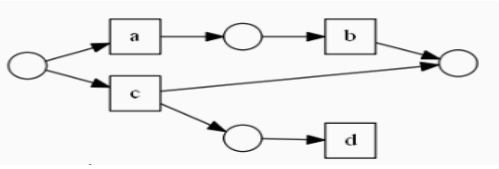
In which one of the following Rapid Application Development (RAD) phases would you use CASE tools?

A. Delivery.
B. Planning.
C. User Design.
D. Construction.

Question 14 **(1 mark)**

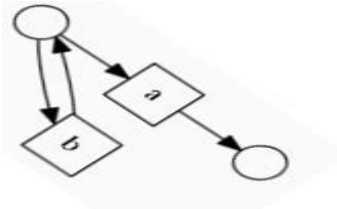
Which one of the following diagrams exhibits properties of correctness or soundness of a workflow?

A.

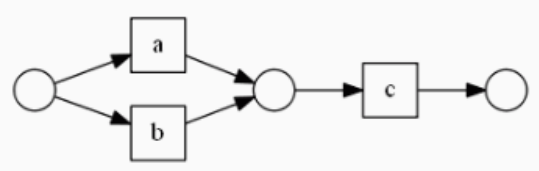


B.

C.



D.



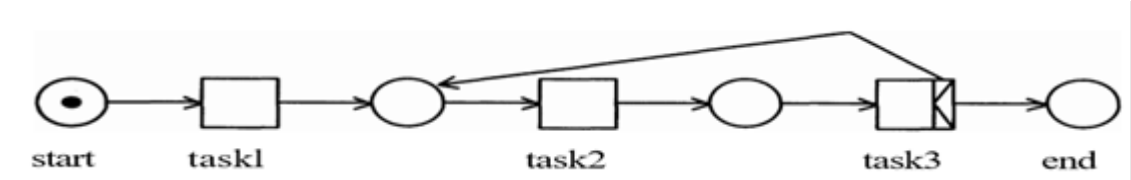
Question 15 **(1 mark)**

Which one of the following workflow or process analysis techniques is also known as a reachability graph with the probability of transitions added to it?

A. Markov chain.
B. Simulation.
C. Queuing theory.
D. Reachability chain.

Question 16 **(1 mark)**

Which one of the following process definition errors is shown in this diagram?

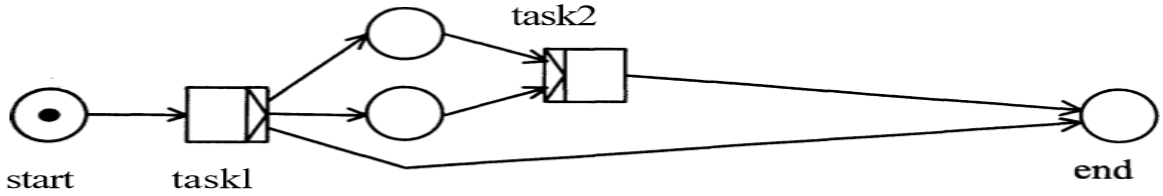


A. Deadlock: jamming a case before the condition "end" is reached.
B. Livelock: trapping a case in an endless cycle.
C. Dead tasks: tasks that can never be carried out.
D. Tasks without input and/or output conditions.

Question 17 **(1 mark)**

Analyse the situation illustrated in the following diagram.

Which one of the following process definition errors is shown in this situation?



A. Tasks without input and/or output conditions.
B. Deadlock: jamming a case before the condition "end" is reached.
C. Tasks without input and/or output conditions.
D. Dead tasks: task(s) that can never be carried out.

Question 18 **(1 mark)**

A workflow net is defined to be sound if and only if it fulfils which one of the following requirements?

A. A token at the start must reach the end.
B. A token at the start must at least pass through two (2) other tasks before it reaches the end.
C. A token at the start must at least pass through one (1) other task before it reaches the end.
D. A token at the start must at least pass through three (3) other tasks before it reaches the end.

Question 19 **(1 mark)**

An analysis of systems emphasises such performance indicators as waiting times, completion times, and utilization of capacity.

Which one of the following options does this statement best describe?

A. Queuing theory.
B. Waiting theory.
C. Simulation.
D. Markov chain.

Question 20 **(1 mark)**

Which one of the following characterizes one of the Rapid Application Development's main objectives?

A. Quality improvement
B. Cost increase
C. Random selection of activities
D. Speed reduction

Question 21 **(1 mark)**

In workflow net development, which one of the following options results in a deadlock?

A. XOR split and AND join
B. AND split
C. AND split and AND join
D. XOR split and XOR join

Question 22 **(1 mark)**

Which one of the following activities is performed In the Integration phase of the Interactive, Process-oriented System Development (IPSD)?

A. Obtaining approval for the project.
B. Production of test report
C. Development of the project schedule
D. Modelling

Question 23 **(1 mark)**

You work as a junior business analyst for an IT consulting firm, fresh out of Boston College having completed your diploma in systems development. A client has consulted your firm, for the development of a workflow system that would integrate workflow management software with their currently existing system.

Which one of the following development approaches is well suited for this process?

A. Rapid Application Development.
B. Waterfall development approach.
C. Interactive, Process- oriented Systems Development (IPSD).
D. Business Process Re-engineering.

Question 24 **(1 mark)**

You work as a junior business analyst for an IT consulting firm, fresh out of Boston College having done your diploma in systems development. A client has consulted your firm, for the development of a workflow system that would integrate workflow management software with their currently existing system.

Which of the following options is advised to be done during this process?

A. New components need to be created during the integration process.
B. Prototypes need to be generated during the integration process.
C. Established components need to be maintained.
D. an Intensive upgrade of the new software needs to be done.

Question 25 **(1 mark)**

Which one of the following is one of the three groups of activities of the diagnosis phase of the Interactive Processes Systems Development (IPSD)?

A. Visioning.
B. Timing.
C. Budgeting.
D. Risk analysis.

Question 26 **(1 mark)**

When analysing a process, which one of the following aspects do you need to give attention?

A. Policy guidelines and rules (either formal or informal) that are not being observed or do not appear to work.
B. Communication of the mission statement, approach, and timetable.
C. Specification of the targets in terms of KPI's.
D. Definition of key performance indicators.

Question 27 **(1 mark)**

Which one of the following Business Process Re-engineering (BPR) lifecycle phases, the analysis of the current situation, and in particular of the problems caused by the existing way of working, is performed?

A. Operational.
B. Redesign.
C. Diagnosis.
D. Reconstruction.

Question 28 **(1 mark)**

During the diagnosis phase analysis of the reasons for change, the strategy and the critical success are carried out.

Which one of the following options is the step to take to be able to translate the objectives into concrete targets?

A. Formulation and definition of Key Performance Indicators (KPI's).
B. Formulation and definition of requirements.
C. Formulation and definition of CASE tools.
D. Formulation and definition of Key Success Factors.

Question 29 **(1 mark)**

Modelling and calibration of the existing situation is an activity that is performed in which one of the following phases of the Interactive, Process Systems Development (IPSD) method?

A. Architecture.
B. Preparation.
C. Process Redesign.
D. Construction.

Question 30 **(1 mark)**

In which one of the following phases of the Rapid Application Development (RAD) is the acceptance test carried out and the system is prepared for production?

A. Planning.

B. Construction.

C. User design.

D. Delivery.

Question 31 **(1 mark)**

If two tasks can be carried out in parallel, it is in general, sensible to ensure that the process allows this.

Which one of the following options is correct about 'parallelising' tasks?

A. Completion times can usually be reduced.
B. Waiting times are usually increased
C. Errors are usually reduced and sometimes eliminated.
D. The Workflow net gets simplified.

Question 32 **(1 mark)**

Checking for soundness within workflow nets, is which one of the following aspects of workflow?

A. Liveness.
B. Boundedness.
C. Correctness.
D. Reachability.

Question 33 **(1 mark)**

Which one of the following defines a workflow that contains no unnecessary task and every case is completed fully?

A. Correctness.
B. Flawless.
C. Liveness.
D. Reachability.

Question 34 **(1 mark)**

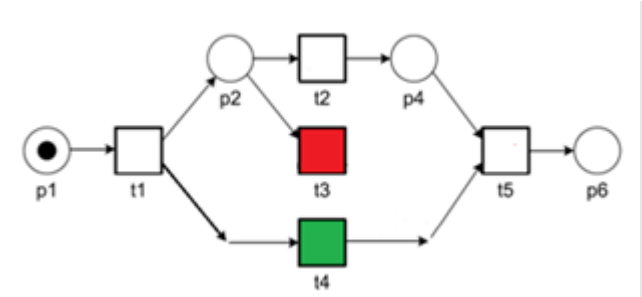
It is possible to reach every single transition in the workflow with no dead transitions.

Which one of the following aspects identifies the state of this workflow?

A. Correct.
B. Bound.
C. Live.
D. Reachable.

Question 35 **(1 mark)**

Using the diagram below of a workflow net, which one of the tasks has an error?



A. p1 and p6.
B. t4 and p4.
C. t2 and t3.
D. t3 and t4.

Question 36 **(1 mark)**

Which one of the following options is characterised by cyclical development tools and is based upon an interactive development process?

A. Rapid Application Development (RAD).
B. Business Process Re-engineering (BPR).
C. Interactive Process- oriented System Development (IPSD).
D. Workflow Management System.

Question 37 **(1 mark)**

The development of the project schedule, the budget and drawing up of a detailed project plan is performed in which one of the following phases of system development methodologies?

A. User design.
B. Diagnosis.
C. Construction.
D. Requirements.

Question 38 **(1 mark)**

Which one of the following options is the result of the diagnosis phase in the Interactive Process oriented System Development approach?

A. Specification of the targets in terms of Key Performance Indicators (KPI's).
B. Requirements for data-processing applications.
C. Organisational model
D. A detailed project plan for the subsequent course of action.

Question 39 **(1 mark)**

Preparation of manuals, training materials, and provision of training is carried out in which one of the following phases of Interactive Process-oriented System Development (IPSD)?

A. Enactment phase.
B. Monitoring phase.
C. Delivery phase
D. Integration phase.

Question 40 **(1 mark)**

Which one of the following phases of Interactive Process-oriented System Development the performance of the acceptance tests are done using scenarios?

A. Initiation.
B. Enactment.
C. Delivery.
D. Component design.

Question 41 **(1 mark)**

When is a workflow net deemed as bounded?

A. When there is a limit on the number of task a workflow can have.
B. When the number of tasks in a workflow net is even.
C. When the number of tasks in a workflow net is odd.
D. When there is a limit on the number of tokens, a particular place can hold.

Question 42 **(1 mark)**

Which one of the following terms is used to characterize a workflow net when each case is always possible to reach the end state?

A. Proper completion.
B. Option to complete.
C. No dead transitions.
D. Reachable state.

Question 43 **(1 mark)**

Which one of the following terms is used to characterize a workflow net when each task is busy executing, all other places must be empty?

A. No dead transitions.
B. Option to complete.
C. Proper completion.
D. Reachable state.

Question 44 **(1 mark)**

You have been tasked to develop a Workflow Management System for a client who is running a Ceramic Pottery Manufacturing Shop.

In which one of the following Business Process Re-engineering phases would you produce an entirely new description of the process?

A. Diagnosis.
B. Redesign
C. Reconstruction
D. Operations

Question 45 **(1 mark)**

You have been tasked to develop a Workflow Management System for a client who is running a Ceramic Pottery Manufacturing Shop.

Which one of the following phases of the Interactive Process-oriented System Development (IPSD) method would you develop a rough functional model of the applications to be developed?

A. Preparation.
B. Diagnosis.
C. Process Redesign.
D. Requirements.

Question 46 **(1 mark)**

You have been tasked to develop a Workflow Management System for a client who is running a Car Grille Manufacturing Shop.

In which one of the following Rapid Application Development phases would you define the results of the project?

A. User design.
B. Construction.
C. Delivery.
D. Planning.

Question 47 **(1 mark)**

Which one of the following options is the valid reason for modelling the existing processes in the redesign phase of the Interactive Process-oriented Systems Development (IPSD) approach?

A. It is a way to understand existing processes better.
B. A way to keep track and detect errors of the existing process.
C. A way to simplify the overall view of the existing process.
D. A way to make the job of the process modeller easy.

Question 48 **(1 mark)**

Which one of the following options is the reason you need to have a good understanding of the correctness/soundness properties when you analyse workflows?

A. To identify and rectify any anomalies or errors within workflows.
B. To be able to model the workflow.
C. For a developer to be able to simplify the workflow.
D. For a modeller to be able to analyse the workflow.

Question 49 **(1 mark)**

Which one of the following options is an important instrument in establishing efficient and effective communication with users?

A. Workflow net.
B. Flowchart.
C. Prototyping.
D. CASE tools.

Question 50 **(1 mark)**

Which one of the following phases of the Business Process Re-engineering (BPR) lifecycle is the performance of the processes is measured and assessed using predefined performance criteria?

A. Operational phase.
B. Redesign phase.
C. Reconstruction phase.
D. Diagnosis phase.

HIGHER EDUCATION PROGRAMMES

Academic Year 2020:	January - June
Summative Assessment 2:	Work Flow Management 3 (HWFM3161)
NQF Level, Credit:	6, 21
Weighting:	10%
Assessment Type:	Research Essay
Educator:	C. Muranda
Examiner:	O.Dyantyi
Due Date	09 June 2020
Total	20 Marks

Instructions

1. Summative Assessment 2 (SA 2) must be handed in online before or on the day of the Summative Assessment 1 (SA 1) sitting.

2. The essay must be a minimum of 600 (six hundred) words, and should not exceed 750 (seven hundred and fifty) words.

3. The essay structure must be as follows:
   - Cover Page:
     - Name
     - Surname
     - Student Number
     - Name of your Support Centre (i.e. Boston, Braamfontein)
   - Introduction: Tells the reader what the essay is about.
   - Body / Main Content: Is based on research and relates to the essay question or topic that has been set.

- Conclusion: Is a summary of what has been covered in the essay, it may also include suggestions / recommendations.
- Reference list: (not included in the word count): the Harvard Referencing Method must be adhered to with regards to in-text citations and the reference list. Please make sure you have read and adhere to the *NWU Referencing Guide*, available in the HE Library module on ColCampus, as well as *The Beginners Guide to Plagiarism*, available in the HE Student Information module, also on ColCampus.

4. The essay must be typed, using the following type settings only:
   - Font: Arial
   - Font Size: 12
   - Line Spacing: 1.5

5. **The following must be adhered to:**

- ***You have been provided with three (3) academic sources (see below); these sources are compulsory and must be consulted and referenced when answering the research question.***
- ***It is imperative to note that the compulsory sources must be accessed using the Library module on ColCampus.***

Compulsory sources to peruse:

Janiesch, J., Koschmider, A., Mecella, M., Weber, B., Burattin, A., Di Ciccio, C., Gal, A., Kannengiesser, U., Mannhardt, F., Mendling, J., Oberweis, A., Reichert, M., Rinderle-Ma, S., Song, W., Su, J., Torres, V., Weidlich, M., Weske, M. and Zhang, L. 2017. The internet-of-things meets business process management: mutual benefits and challenges, 1-9. Retrieved from http://www.pros.upv.es/sites/bp-meet-iot2018/docs/BP-Meet-IoT_Manifesto.pdf [Accessed 14 Oct. 2019].

Bagheri, M. and Movahed, S.H. 2016. The effect of the Internet of Things (IoT) on education business model. In 2016 12th International Conference on Signal-Image Technology and Internet-Based Systems, 435-441. Retrieved from http://shura.shu.ac.uk/14405/1/SITIS2016-MB%26SHM.pdf [Accessed 14 October 2019].

Angelova, N., Kiryakova, G. and Yordanova, L.2017. Trakia Journal of Science. The great impact of internet of things on business, 15(1): 406-412. Retrieved from http://tru.uni-sz.bg/tsj/TJS_Suppl.1_Vol.15_2017/68.pdf [Accessed 14 October 2019].

6. You must make use of the Harvard Method of Referencing. Refer to the examples of referencing below:

Book, single author:

Holt, D.H. 2017. Management principles and practices. Sydney: Prentice-Hall.

Book, 2 or 3 authors:
McCarthey, E.J., William, D.P. & Pascale, G.Q. 2017. Basic marketing, Cape Town: Juta.

Book, more than 3 authors:
Bond, W.R., Smith, J.T., Brown, K.L. & George, M. 2016. Management of small firms, Sydney: McGraw-Hill.

Book, no author:
Anon. 2009. A history of Greece 1994-now. Sydney: Irwin.

eBook:
Harris, C.A. 1917. How to write music: musical orthography, edited by M. Randall. New York, NY: H. W. Grey. http://gutenbert.org/files/37281/37281-h/37281-h.htm. Date of access: 31 August 2017.

Academic Journal article with one author:
Allan, J. 2017. Nurturing supportive learning environment in higher education through the teaching of study skills: to embed or not to embed? *International Journal of Teaching and Learning in Higher Education*, 19(2):64-76.

Academic Journal with 2 or more authors:
Glatt, M.M., Grindstone, C.H & Hult, C.J. 2019. The geographic expansion of Mexican immigration in the United States and its implications for local law enforcement. *Law Enforcement Executive Forum Journal*, 8(1):73-82.

Webpage, no author:
(use first few words of the page title) Improve indigenous housing now, government told. 2007. Available from: <http://www.architecture.com.au/i-cms?page=10220>. Date of Access, 8 February 2016.

Website:
Australian Securities Exchange. 2019. Market Information. Available from: <http://www.asx.com.au/professionals/market_information/index.htm> Accessed on 5 July 2019.

Web based image / table / figure:
The Lunar Interior. 2000. Available from:
http://www.planetscapes.com/solar/browse/moon/moonint.jpg 2 Accessed on 8 November 2016.

Blog:
Newton, A. 2007. Newcastle toolkit. 16 January 2007. Angela Newton: Blog. Available from: <https://elgg.leeds.ac.uk/libajn/weblog/> Accessed on 23 February 2014.

Facebook and Twitter:
Smith, P. 2012. Social networking group, (Facebook), 6 October. Available from: http://facebook.com Accessed on 29 October 2012.

Newspaper, print:
Wolhuter, T. 2011. How to read food labels. *Star*. 26, 2 Mar 2011.

Newspaper, electronic database:
Hans, B. 2011. Cosatu slams Swazi loan. *The mercury*, 15 Aug. http://www.iol.co.za/mercury/cosatu-slams-swazi-loan-1.1117816 Date of access: 1 Sep. 2012.

7. Plagiarism occurs when a writer duplicates another writer's language or ideas, and then calls the work his or her own. Simply put, plagiarism is theft. This includes the 'copy and paste' of work from textbooks, study guides, journal articles. The Plagiarism Declaration, included in this brief, must be signed and attached to the front of your essay. Refer to the Plagiarism Information Sheet in your Course Outline for further information.

8. ***Academic sources:***

Not all sources can be classified as an academic source. To judge whether a source is an academic source, take the following criteria into account:

- The author should be identifiable
- The source should be published by a credible publisher (In an Academic Textbook or Academic Journal)
- A list of references should be provided

Wikipedia ***is not*** a credible academic source. There is no one author identifiable, and editing an article on this site is very easy. Also, blog posts often provide valuable information, but this is not academically sound.

9. To obtain maximum results, please consult the rubric included in this brief to ensure that you adhere to and meet all the given criteria.

Instructions for the assignment:

Use the provided articles (to begin with) and others of your own to help you answer the following research question.

NB: *Do not copy and paste information from the sources as it is. Observe instruction number 3 about referencing.*

Question 1 **(20 Marks)**

Motivate whether you agree or disagree with the statement below:

"IoT will provide many benefits to organizations. However, it will disrupt the workflow processes, as we currently know them "

Compulsory sources to peruse:

- Janiesch, J., Koschmider, A., Mecella, M., Weber, B., Burattin, A., Di Ciccio, C., Gal, A., Kannengiesser, U., Mannhardt, F., Mendling, J., Oberweis, A., Reichert, M., Rinderle-Ma, S., Song, W., Su, J., Torres, V., Weidlich, M., Weske, M. and Zhang, L. 2017. The internet-of-things meets business process management: mutual benefits and challenges, 1-9. Retrieved from http://www.pros.upv.es/sites/bp-meet-iot2018/docs/BP-Meet-IoT_Manifesto.pdf [Accessed 14 Oct. 2019].

- Bagheri, M. and Movahed, S.H. 2016. The effect of the Internet of Things (IoT) on education business model. In 2016 12th International Conference on Signal-Image Technology and Internet-Based Systems, 435-441. Retrieved from http://shura.shu.ac.uk/14405/1/SITIS2016-MB%26SHM.pdf [Accessed 14 October 2019].

- Angelova, N., Kiryakova, G. and Yordanova, L.2017. Trakia Journal of Science. The great impact of internet of things on business, 15(1): 406-412. Retrieved from http://tru.uni-sz.bg/tsj/TJS_Suppl.1_Vol.15_2017/68.pdf [Accessed 14 October 2019].

The following Learning Outcomes are assessed in this assessment:

Describe factors that influence workflow processes of an organization.

Assignment content		Suggested mark allocation				Total
	0	1-4	5-9	10-13	14-17	(14)
Understanding and relevancy	None	Responses not aligned and does not address topic. Content is unclear, inaccurate, and/or incomplete; support for the central purpose, arguments, or goals of the question posed is weak or poorly discussed;	Only certain elements of responses relate to topic. Presents appropriate information that adequately supports 2-1 points of interaction of IoT and Workflow Processes demonstrates satisfactory knowledge of the content area. 2 marks per point. 3 marks for a description of IoT. 2 marks for a description of Workflow Processes.	Responses relevant to topic. Presents noteworthy, and valid information that clearly and convincingly supports 4-3 points of interaction of IoT and Workflow Processes demonstrates in-depth knowledge of the content area. 2 marks per point 3 marks for a description of IoT. 2 marks for a description of Workflow Processes.	Responses relevant & accurate to topic. Presents well-adjusted, significant, and valid information that clearly and convincingly supports 5 points of IoT and Workflow Processes; demonstrates in-depth knowledge of the content area. 2 marks per point 3 marks for a description of IoT. 2 marks for a description of Workflow Processes.	
	0	**0**	**1**	**2**	**3**	**(3)**
Structure (Introduction, body, recommendations & conclusion)	None	Some formatting issues. Structure completely incorrect e.g. single paragraph essay, no breaks to determine where one section starts and ends.	Some formatting issues e.g. incorrect font, incorrect spacing Omitted at least two components e.g. intro and recommendations.	Some formatting issues e.g. Incorrect font, incorrect spacing. Structure mostly correct. Omitted one component only e.g. conclusion.	Type settings correct (font & font size). Spacing correct. Structure accurate & correct.	
	0	**1**		**2**	**3**	**(3)**
Bibliography and Referencing	None	Some sources quoted, but irrelevant. Incorrect referencing. Including incitation.		Minimum relevant sources met. Correct Harvard referencing. Including incitation.	Exceeds number of relevant sources (2+). Correct Harvard referencing. Including incitation.	**/20**

DECLARATION ON PLAGIARISM

NAME: ……

SURNAME: ……..

STUDENT NUMBER: ……..

SUPPORT CENTRE: ……...

MODULE CODE: ……..

TITLE OF ESSAY:

……

This form should be completed by the student and appended to any piece of work that is submitted for Summative Assessment 2. The following defines plagiarism:

“Plagiarism” occurs when a student misrepresents, as his/her own work, the work, written or otherwise, of any other person (including another student) or of any institution and includes the deliberate and detailed presentation of another’s concept as one’s own. “Another’s work” covers all material, including, for example, written work, diagrams, designs, charts, musical compositions and pictures, from all sources, including, for example, the internet, journals, textbooks and essays.

STUDENT DECLARATION: I confirm that I have read and understood the above definitions of plagiarism. I confirm that I have not committed plagiarism when completing the attached piece of work. I confirm that this is my own work.

SIGNATURE……DATE……..

HIGHER EDUCATION PROGRAMMES

Academic Year 2020:	January - June
Sample Summative Assessment 1:	Workflow Management 3 (HWFM3161)
NQF Level, Credits:	6,21
Weighting:	50%
Assessment Type:	Examination
Stationery:	Black / Blue Pen
Pass Requirement:	50%
Educator:	C. Muranda
Examiner:	Hugo Pienaar
Due Date:	Sample
Total:	70 Marks
Time:	2 Hours

Instructions

1. This examination script consists of 12 pages including the cover sheet. Ensure that you have all the pages.
2. This examination consists of two sections: Section A (Multiple-Choice Questions) and Section B (Essay-Type Questions).
3. Answer both Sections A and B in the Assessment Answer Book provided.
4. No answers in pencil will be marked.
5. Ensure that you hand in the entire examination script and the answer book at the end of the session. This script remains the property of Boston City Campus & Business College (Pty) Ltd.
6. Good Luck!

Section A

Question 1 **(1 mark)**

ERP and CRM is part of a range of systems collectively known as?

A. Work Pattern Initiative
B. Process-Aware Information system
C. Work Flow Management
D. Universal Modelling Language

Question 2 **(1 mark)**

The notation of patterns is used for?

A. Categorising reoccurring problems and solution in a particular domain
B. Used for visual inspections
C. Formally evaluation of know processes
D. The transfer of knowledge to new employees to ensure faster onboarding

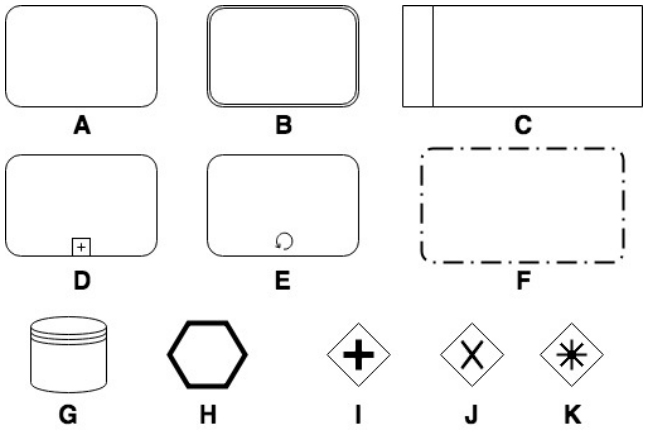
Question 3 **(1 mark)**

The first major value in being able to identify patterns were made in which field?

A. Business Process Modelling
B. Object-Oriented Software
C. Enterprise Resource Planning
D. Error Reporting

Question 4 **(1 mark)**

You are assigned to model a workflow using BPMN. The task has multiple subtasks within a task. Looking at the Figure below, what construct would you use to model this?



A. B
B. B or E
C. D
D. A

Question 5 **(1 mark)**

Workflow pattern templates are created to standardize items and to promote reuse. What standard some of the standard information that would be part of each template?

A. Name, sufficiency
B. Name, issue, solution
C. Name, issue, date
D. Issue, date

Question 6 **(1 mark)**

You need to model a workflow from a resource perspective. Which of the common techniques are not listed below?

- Role-activity diagrams
- Organizational charts
- X.500

A. Petri nets
B. State charts
C. EPCs
D. Use cases

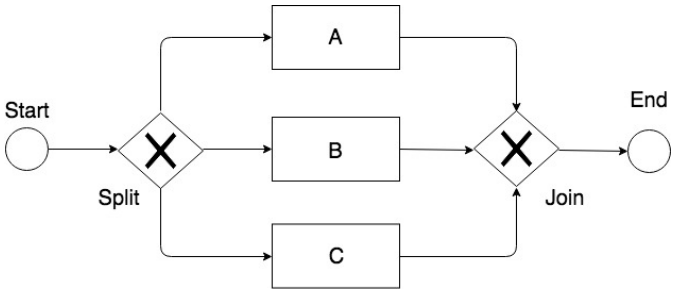
Question 7 **(1 mark)**

What process was UML originally designed for?

A. Manufacturing processes
B. Software processes
C. Operational processes
D. Business processes

Question 8 **(1 mark)**

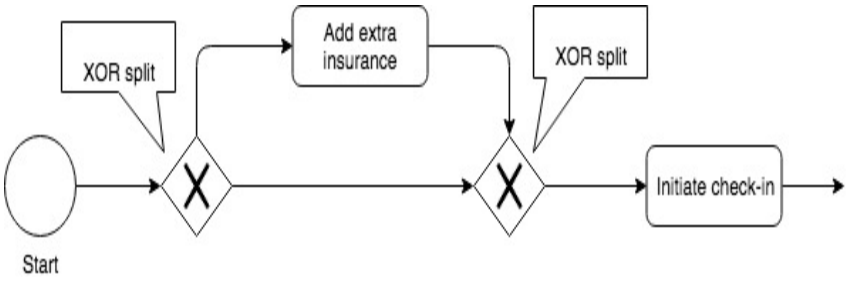
Given the figure below. What state does process A,B and C need to be in for the process to move to the end state?



A. A must be completed
B. A and C must be completed
C. A,B and C must be competed
D. A and B must be completed

Question 9 **(1 mark)**

Looking at figure below. What modelling technique was used?



A. BPMN
B. Use cases
C. Petri nets
D. State charts

Question 10 **(1 mark)**

You need to access data via an API on a daily basis. What data integration would you need to implement?

A. RestFull API
B. Process to environment – push oriented
C. Multiple access
D. Environment to process - pull oriented

Question 11 **(1 mark)**

Which technique was proposed to be the first attempt to standardise a dedicated BPM technique?

A. Petri nets
B. Workflow nets
C. BPMN
D. UML activity diagrams

Question 12 **(1 mark)**

BPMN is a well-known as a good technique to use, what maybe the main reason?

A. Everybody knew BPMN
B. It is easy to use
C. I was widely used
D. It can model complex processes for business and technical users to understand

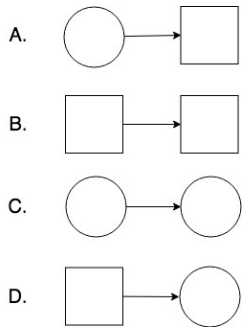
Question 13 **(1 mark)**

Peri nets consist of a set of main constructs. What are they?

A. place, transition, arc
B. gate, flow, stop
C. token, transition, flow
D. and, xor, flow

Question 14 **(1 mark)**

Looking at the figure below. What items are correct when working with Peri nets?



A. A and B
B. B and D
C. B and C
D. A and D

Question 15 **(1 mark)**

All techniques have rules and limitations. When working with a workflow net what constraints do you need to keep in mind?

A. Insufficient notation to model
B. All workflow nets have a start and end and all transitions go from start to end
C. There are dead transitions
D. None of the above

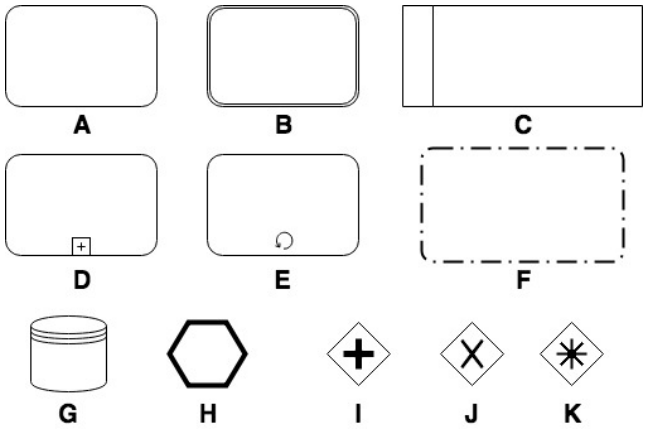
Question 16 **(1 mark)**

How would you summarise the qualities you need in a business process modeling tool?

A. Expressiveness, ease of use, precision
B. Expressiveness, sufficiency, precision
C. Cost, sufficiency, precision
D. Precision

Question 17 **(1 mark)**

You are assigned to model a workflow using BPMN. The first task after the workflow has started is that the person needs to log a booking. Looking at the Figure below what construct would you use to model this?

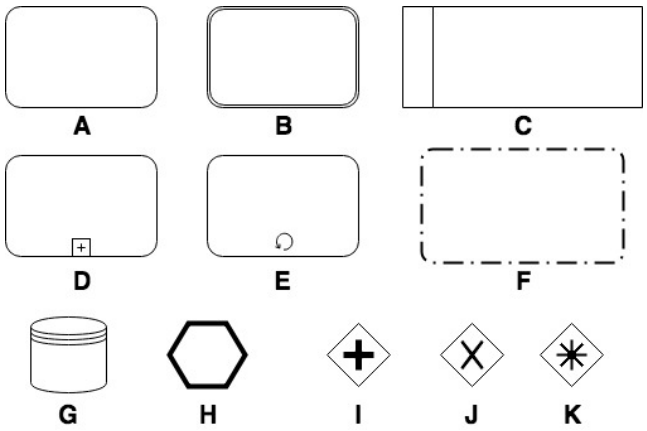


A. E
B. A or B
C. D
D. A

Question 18 **(1 mark)**

You are assigned to model a workflow using BPMN and a group of tasks needs to be performed by a business division and you want to group the task for the division.

Looking at the Figure below what construct would you use to model this?



A. C

B. B or E

C. F

D. H

Question 19 **(1 mark)**

When a task is in progress and something goes wrong, which event handling would you need to use?

A. 

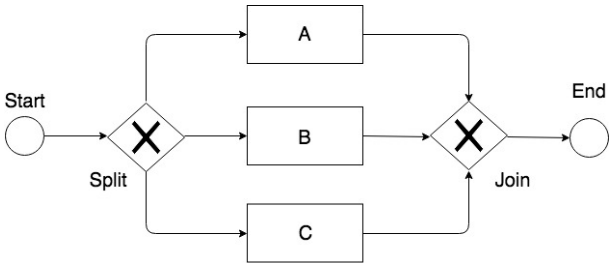
B. 

C. 

D. 

Question 20 **(1 mark)**

Looking at the figure below. What is the specific name for the split and join function called?



A. XOR
B. Gate
C. AND
D. Timer

Question 21 **(1 mark)**

UML constructs can be grouped in main categories. What are these main categories?

A. Action, paths
B. Task, transitions
C. Actions, tasks, paths
D. Actions, nodes, paths

Question 22 **(1 mark)**

Why would you use Linear Temporal Logic?

A. It is a task in a model
B. It is the go to tool to use
C. It identifies models that can never reach the end state
D. It identifies complex models

Question 23 **(1 mark)**

You are tasked to report on the workflow system. In your opinion which of the following would you avoid using as a key performance indicator to report on?

A. Number of tasks
B. Service time
C. Synchronization time
D. Waiting time

Question 24 **(1 mark)**

You are a client at a cellular provider and you need to go to the shop to have details changed on your account. The cellular provider provides the key performance indicators. What metric would be of most value to you as the client when you arrive at the shop?

A. Number of tasks
B. Service time
C. Synchronization time
D. Waiting time

Question 25 **(1 mark)**

You are a branch manager of a cellular provider. You have a small workforce and a large client base for the shop. What metric would be of the most value to you?

A. Number of tasks
B. Service time
C. Synchronization time
D. Waiting time

Section B

Question 1 **(32 mark)**

Business processes varies widely between BPM offerings.

Distinguish the 3 technologies discussed in your prescribed textbook and how they manage business activities.

Question 2 **(13 mark)**

Describe and motivate the Retain Familiar resource pattern.

HIGHER EDUCATION PROGRAMMES
MEMORANDUM

Academic Year 2020:	January - June
Sample Summative Assessment 1:	Workflow Management 3 (HWFM3161)
NQF Level, Credits:	6,21
Weighting:	50%
Assessment Type:	Examination
Stationery:	Black / Blue Pen
Pass Requirement:	50%
Educator:	C. Muranda
Examiner:	Hugo Pienaar
Due Date:	Sample
Total:	70 Marks
Time:	2 Hours

Instructions

1. This examination script consists of 5 pages including the cover sheet. Ensure that you have all the pages.
2. This examination consists of two sections: Section A (Multiple-Choice Questions) and Section B (Essay-Type Questions).
3. Answer both Sections A and B in the Assessment Answer Book provided.
4. No answers in pencil will be marked.
5. Ensure that you hand in the entire examination script and the answer book at the end of the session. This script remains the property of Boston City Campus & Business College (Pty) Ltd.
6. Good Luck!

Section A

Question 1 **(1 mark)**

ERP and CRM is part of a range of systems collectively known as?

A. Work Pattern Initiative
B. Process-Aware Information system
C. Work Flow Management
D. Universal Modelling Language

Correct answer: B. Process-Aware Information system

Chapter 1, page 16

Question 1. Assessed the following learning outcome(s):
- Knowledge of standard terms in industry

Question 2 **(1 mark)**

The notation of patterns is used for?

A. Categorising reoccurring problems and solution in a particular domain
B. Used for visual inspections
C. Formally evaluation of know processes
D. The transfer of knowledge to new employees to ensure faster onboarding

Correct answer: C. Categorising reoccurring problems and solution in a particular domain

Chapter 1, page 14

Question 2. Assessed the following learning outcome(s):
- Comprehension on why workflow is valuable

Question 3 **(1 mark)**

The first major value in being able to identify patterns were made in which field?

A. Business Process Modelling
B. Object-Oriented Software
C. Enterprise Resource Planning
D. Error Reporting

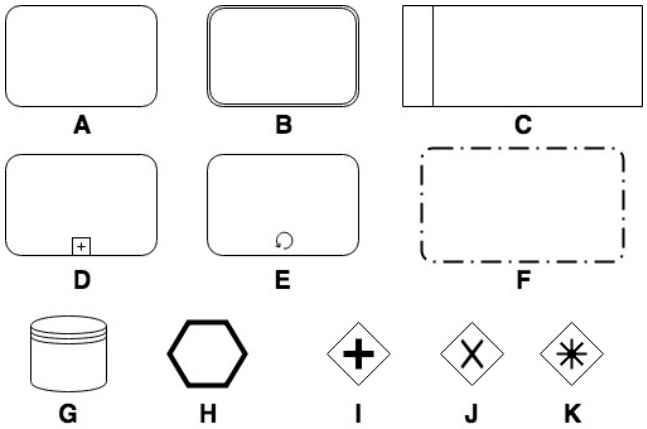
Correct answer: B. Object-Oriented Software

Chapter 1, page 14

Question 3. Assessed the following learning outcome(s):
- Comprehension on why workflow is valuable

Question 4 **(1 mark)**

You are assigned to model a workflow using BPMN. The task has multiple subtasks within a task. Looking at the Figure below, what construct would you use to model this?



A. B
B. B or E
C. D
D. A

Correct answer: C. D

Chapter 2, page 43

Question 17. Assessed the following learning outcome(s):
- Application of BPMN techniques

Question 5 **(1 mark)**

Workflow pattern templates are created to standardize items and to promote reuse.

What standard some of the standard information that would be part of each template?

A. Name, sufficiency

B. Name, issue, solution

C. Name, issue, date

D. Issue, date

Correct answer: B. Name, issue, solution

Chapter 1, page 19

Question 5. Assessed the following learning outcome(s):
- Comprehension on why we select certain techniques

Question 6 **(1 mark)**

You need to model a workflow from a resource perspective. Which of the common techniques are not listed below?

- Role-activity diagrams
- Organizational charts
- X.500

A. Petri nets

B. State charts

C. EPCs

D. Use cases

Correct answer: D. Use cases

Chapter 1, page 6

Question 6. Assessed the following learning outcome(s):
- Knowledge on what tools to use

Question 7 **(1 mark)**

What process was UML originally designed for?

A. Manufacturing processes
B. Software processes
C. Operational processes
D. Business processes

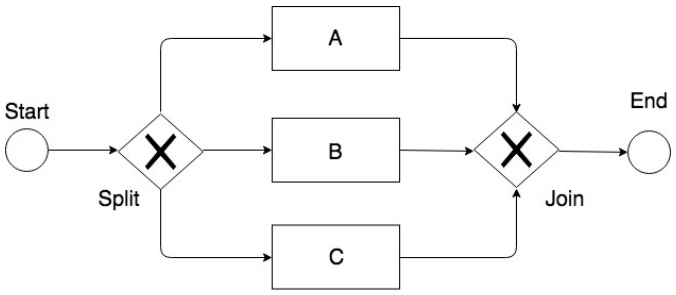
Correct answer: B. Software processes

Chapter 2, page 50

Question 20. Assessed the following learning outcome(s):
- Knowledge of UML and its use

Question 8 **(1 mark)**

Given the figure below. What state does process A,B and C need to be in for the process to move to the end state? **(Note to grader: I am testing the very basics of workflow here as and/xor have not been discussed in detail)**



A. A must be completed
B. A and C must be completed
C. A,B and C must be competed
D. A and B must be completed

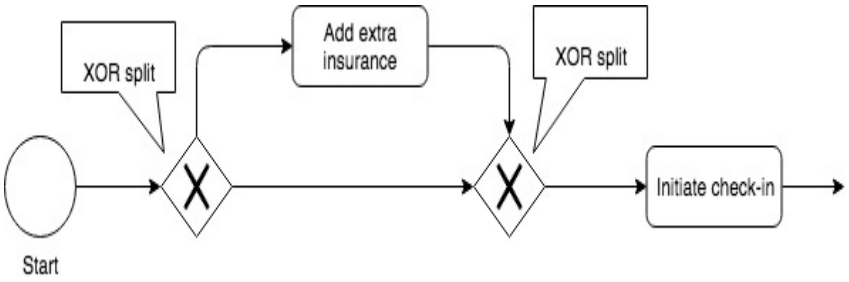
Correct answer: C. A,B and C must be completed

Example in Chapter 1, page 8 and detail on Chapter 4 page 110

Question 8. Assessed the following learning outcome(s):
- Analysis logical analysis of and gates in example

Question 9 **(1 mark)**

Looking at figure below. What modelling technique was used?



A. BPMN
B. Use cases
C. Petri nets
D. State charts

Correct answer: A. BPMN

Chapter 1, page 8

Question 9. Assessed the following learning outcome(s):
- Analysis logical analysis of and gates in example

Question 10 **(1 mark)**

You need to access data via an API on a daily basis. What data integration would you need to implement?

A. RestFull API
B. Process to environment – push oriented
C. Multiple access
D. Environment to process - pull oriented

Correct answer: D. Environment to process - pull oriented

Chapter 5, page 216

Assessed the following learning outcome(s):
- Application of external interactions

Question 11 **(1 mark)**

Which technique was proposed to be the first attempt to standardise a dedicated BPM technique?

A. Petri nets
B. Workflow nets
C. BPMN
D. UML activity diagrams

Correct answer: C. BPMN

Chapter 2, page 40

Question 11. Assessed the following learning outcome(s):
- Knowledge where modelling started

Question 12 **(1 mark)**

BPMN is a well-known as a good technique to use, what maybe the main reason?

A. Everybody knew BPMN
B. It is easy to use
C. I was widely used
D. It can model complex processes for business and technical users to understand

Correct answer: D. It can model complex processes for business and technical users to understand

Chapter 2, page 40

Question 12. Assessed the following learning outcome(s):
- Knowledge recall facts on why we use the technique

Question 13 **(1 mark)**

Peri nets consist of a set of main constructs. What are they?

A. place, transition, arc
B. gate, flow, stop
C. token, transition, flow
D. and, xor, flow

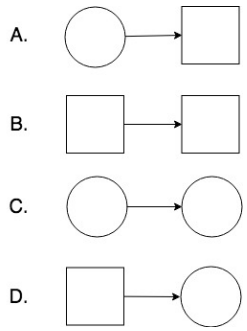
Correct answer: A. place, transition, arc

Chapter 2, page 42

Question 13. Assessed the following learning outcome(s):
- Knowledge recall facts on how we use the technique

Question 14 **(1 mark)**

Looking at the figure below. What items are correct when working with Peri nets?



A. A and B

B. B and D

C. B and C

D. A and D

Correct answer: D. A and D

Chapter 2, page 41

Question 14. Assessed the following learning outcome(s):
- Comprehension of Peri nets

Question 15 **(1 mark)**

All techniques have rules and limitations. When working with a workflow net what constraints do you need to keep in mind?

A. Insufficient notation to model

B. All workflow nets have a start and end and all transitions go from start to end

C. There are dead transitions

D. None of the above

Correct answer: B. All workflow nets have a start and end and all transitions go from start to end

Chapter 2, page 43

Question 15. Assessed the following learning outcome(s):
- Comprehension of limitations of workflow nets

Question 16 **(1 mark)**

How would you summarise the qualities you need in a business process modeling tool?

A. Expressiveness, ease of use, precision

B. Expressiveness, sufficiency, precision

C. Cost, sufficiency, precision

D. Precision

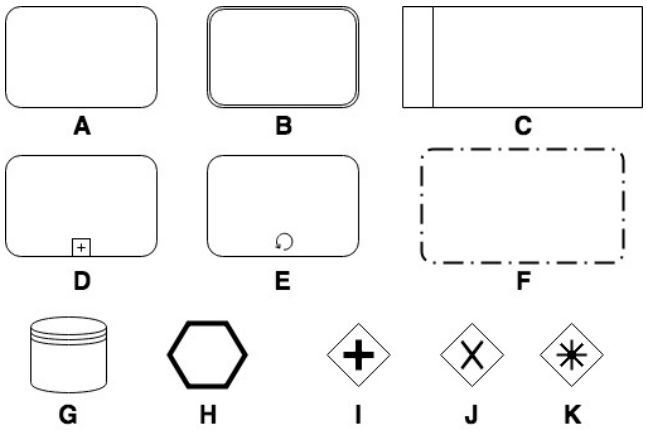
Correct answer: B. Expressiveness, sufficiency, precision

Chapter 1, page 7

Question 4. Assessed the following learning outcome(s):
- Comprehension on why we select certain techniques

Question 17 **(1 mark)**

You are assigned to model a workflow using BPMN. The first task after the workflow has started is that the person needs to log a booking. Looking at the Figure below what construct would you use to model this?



A. E

B. A or B

C. D

D. A

Correct answer: D. A

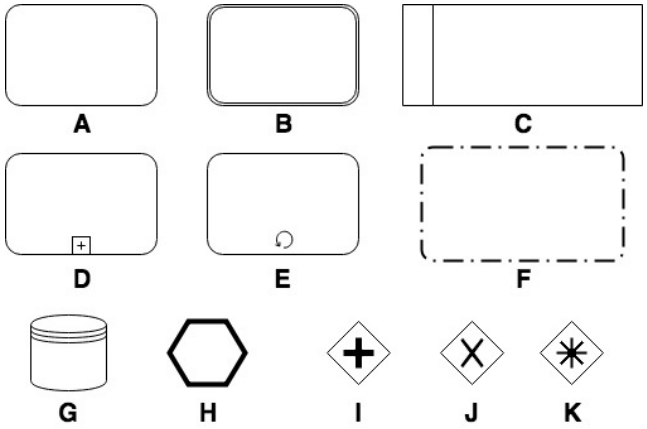
Chapter 2, page 49

Question 16. Assessed the following learning outcome(s):
- Application of BPMN techniques

Question 18 **(1 mark)**

You are assigned to model a workflow using BPMN and a group of tasks needs to be performed by a business division and you want to group the task for the division.

Looking at the Figure below what construct would you use to model this?



A. C

B. B or E

C. F

D. H

Correct answer: A. C

Chapter 2, page 48-49

Question 18. Assessed the following learning outcome(s):
- Application of BPMN techniques

Question 19 **(1 mark)**

When a task is in progress and something goes wrong, which event handling would you need to use?

A. 

B. 

C. 

D. 

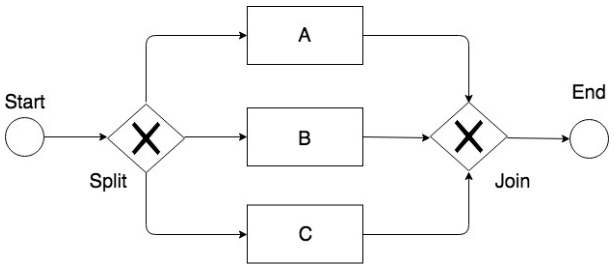
Correct answer: D. 

Chapter 2, page 51

Question 19. Assessed the following learning outcome(s):
- Application of BPMN techniques

Question 20 **(1 mark)**

Looking at the figure below. What is the specific name for the split and join function called?



A. XOR

B. Gate

C. AND

D. Timer

Correct answer: A. XOR

Example in Chapter 1, page 8 and detail on Chapter 4 page 110

Question 7. Assessed the following learning outcome(s):
- Analysis logical analysis of and gates in example

Question 21 **(1 mark)**

UML constructs can be grouped in main categories. What are these main categories?

A. Action, paths
B. Task, transitions
C. Actions, tasks, paths
D. Actions, nodes, paths

Correct answer: D. Actions, nodes, paths

Chapter 2, page 51-53

Question 21. Assessed the following learning outcome(s):
- Knowledge of UML and its use

Question 22 **(1 mark)**

Why would you use Linear Temporal Logic?

A. It is a task in a model
B. It is the go to tool to use
C. It identifies models that can never reach the end state
D. It identifies complex models

Correct answer: C. It identifies models that can never reach the end state

Chapter 2, page 54-55

Question 22. Assessed the following learning outcome(s):
- Knowledge on verification of models

Question 23 **(1 mark)**

You are tasked to report on the workflow system. In your opinion which of the following would you avoid using as a key performance indicator to report on?

A. Number of tasks
B. Service time
C. Synchronization time
D. Waiting time

Correct answer: A. Number of tasks

Chapter 2, page 55-56

Question 243 Assessed the following learning outcome(s):
- Knowledge on process performance

Question 24 **(1 mark)**

You are a client at a cellular provider and you need to go to the shop to have details changed on your account. The cellular provider provides the key performance indicators. What metric would be of most value to you as the client when you arrive at the shop?

A. Number of tasks
B. Service time
C. Synchronization time
D. Waiting time

Correct answer: D. Waiting time

Chapter 2, page 55-56

Question 24. Assessed the following learning outcome(s):
- Application on process performance

Question 25 **(1 mark)**

You are a branch manager of a cellular provider. You have a small workforce and a large client base for the shop. What metric would be of the most value to you?

A. Number of tasks
B. Service time
C. Synchronization time
D. Waiting time

Correct answer: B. Service time

Chapter 2, page 55-56

Question 25. Assessed the following learning outcome(s):
- Application on process performance

Section B

Question 1 **(32 mark)**

The approach to integrating people with business processes varies widely between BPM offerings. Explain how this is accomplished by each of the 3 main technologies discussed in this book

BPMone✓: supports an organizational model that is exclusively role-based✓ and is defined in terms of a role hierarchy✓. Correspondences are established between individual users✓ or groups of users and roles✓. Users involved in a business process are characterized in terms of the roles that they possess✓. All work allocations are role-based✓ and are triggered at the request of individual users based✓ on their ability to take on new work items✓.

Oracle BPEL✓: provides support for a sophisticated organizational model✓ both in terms of the definition of individual resources✓ and their various attributes✓, and also in terms of the relationships between them✓. Moreover, it provides a wealth of options for handling the distribution of work items✓ to both individual resources✓ and groups of resources ✓and for managing its conduct through to completion✓. It also caters to the realities of work performance✓ in an operational environment and includes facilities such as escalations✓ and reassignments✓, where specified distribution practices in a business process go awry and provides a framework for binding a wealth of organizational✓ and extra-organizational capabilities and services into processes✓ by virtue of its service-oriented architecture✓.

BPMN✓: provides a different perspective on the distribution of work by virtue of its status✓ as both a modeling language✓ and an execution language for business processes✓. At a conceptual level✓, Pools and Swimlanes can be used to denote the responsibility✓ for undertaking specific activities. When used at an executable level, it supports User Tasks✓ based on the WS-HumanTask specification to more rigorously define a way in which tasks should be assigned to resource✓ and their associated lifecycle at runtime. It also incorporates a basic organizational model✓ that identifies distinct resources and provides various grouping concepts✓.

Chapter 1,6, page 21,240

Question 1. Assessed the following learning outcome(s):
- Knowledge of human interaction in resource patterns

Question 2 **(13 mark)**

Describe and motivate the Retain Familiar resource pattern

(Note to grader: any of the marks allocated below is correct only award a maximum of 13 marks)

Description: The ability to allocate a work item✓ to the same resource✓ that undertook a preceding work item✓ for the same case✓.

Motivation: Distributing a work item to the same resource that undertook a previous work item is a common means of expediting a case✓. As the resource is already aware of the details of the case✓, it saves familiarization time at the commencement of the work item✓. Where the two work items are sequential✓, it also offers the opportunity for minimizing switching time as the resource can commence the latter work item immediately✓ on completion of the former✓. This pattern is a more flexible version of the Case handling pattern✓ discussed earlier. It only comes into effect when there are multiple resources available to undertake a given work item✓, and where this occurs, it favors the allocation of the work item to the resource that undertook a previous work item in the case. Unlike the Case handling pattern, this pattern applies at the work item level✓ and comes into play when a work item is being distributed to a resource✓. The Chained execution pattern✓ is related to this pattern and is designed to expedite the completion of a case by automatically starting subsequent work items once the preceding work item is complete✓.

Chapter 6, page 250

Question 2. Assessed the following learning outcome(s):
- Knowledge or resource patterns