



PAST PAPERS

<i>Faculty</i>	<i>Department / Section/Division</i>
<i>Not Applicable</i>	<i>Learning Resource Centre</i>

**Past Papers**

**Education & Training Course: B.ED  
(HONOURS) In Information Technology**

**(Year 2 – Semester I)**

**2021 - 2022**

<i>Document Control &amp; Approving Authority</i>	<i>Senior Director – Quality Management &amp; Administration</i>
---	--

<i>1<sup>st</sup> Issue Date: 2017.011.30</i>	<i>Revision No.00</i>	<i>Revision Date: 12.01.2022</i>	<i>Validated by: Librarian</i>
---	-----------------------	----------------------------------	--------------------------------



## FINAL EXAMINATION QUESTION PAPER

CODE-QP

*Approved for Quality Management System*

EDUCATION & TRAINING COURSE-ED (HONOURS) IN INFORMATION TECHNOLOGY COURSE

CODE:LC-0851

YEAR 2 -SEMESTER I

SUBJECT: COMPARATIVE EDUCATION

Faculty	Department / Section/Division
Humanities and Education	Education

INSTRUCTIONS TO CANDIDATES	Date: 23/03/2021
Answer any five questions only.	Duration of the examination = 03 hours
Total Marks = 100	Candidates could be disqualified if you violate examination rules.
	Candidates are not allowed to communicate with and disturb fellow candidates during the examination.

**Answer any FIVE questions only**

### Question 1

There are various reasons as to why Comparative Education should be studied by prospective teachers and reformers of education in any country of the world.

- (i) What is Comparative Education? (4 marks)
- (ii) Explain **three** objectives of Comparative Education (6 marks)
- (iii) Discuss the **five** advantages of prospective teachers studying Comparative Education. (10 marks)

### Question 2

It is important to note that, behind every system of education, there are factors or features that determine or influence the system.

- (i) Identify **four** factors that influence education systems of the world. (4 marks)
- (ii) Briefly explain the factors that you have mentioned above in the question 2.(i) (8 marks)
- (iii) "The type of education largely depends on the economic strength of any country". Discuss (8 marks)

**Question 3**

Educational plural society is discussed under four areas as multilingual education, multi religious education, multiethnic education, and multi-cultural education.

- (i) Define the term pluralistic society. (4 marks)
- (ii) Explain **three** characteristics of pluralistic society. (6 marks)
- (iii) Discuss the importance of multi religious education and multiethnic education. (10 marks)

**Question 4**

Globalization refers to the shrinkage of space as well as time, which brings together nations, cultures and economies in mutual respect for one another.

- (i) As a teacher, how do you teach with global perspective? (6 marks)
- (ii) Explain the features of internationalization in education. (6 marks)
- (iii) Discuss the issues in internationalization in education. (8marks)

**Question 5**

The indigenous system of Education in ancient Sri Lanka was organized at three levels.

- (i) Identify the characteristics of indigenous education (6 marks)
- (ii) Discuss the impact of Portuguese education. (7 marks)
- (iii) "Main objective of the Dutch education was to spread religion through education". Explain other major features in Dutch education. (7 marks)

**Question 6**

The British colonial education is very vital in the history of education systems of Sri Lanka.

- (i) Discuss **three** recommendations of Colebrooke Commission. (6 marks)
- (ii) Explain the role of the local government in education under the British Colonial policy. (7 marks)
- (iii) Discuss the recommendations of 1943 Education Committee. (7 marks)

**Question 7**

According to research, contemporary issues in Sri Lankan education system are varied.

- (i) Identify **five** contemporary issues in Sri Lankan education system (5 marks)
- (ii) Discuss the reasons for school dropouts. (7 marks)
- (iii) Analyze the issues relating to teacher recruitment in Sri Lanka (8 marks)

-----*END OF THE QUESTION PAPER*-----



## FINAL EXAMINATION QUESTION PAPER

CODE - QP

*Approved for Quality Management System*

EDUCATION & TRAINING COURSE-ED (HONOURS) IN INFORMATION TECHNOLOGY COURSE CODE:

LC - 0851

YEAR 2 - SEMESTER I

SUBJECT: GUIDANCE & COUNSELLING BDP4082

Faculty	Department / Section/Division
Humanities and Education	Education

INSTRUCTIONS TO CANDIDATES	Date: 23/03/2021
Answer any four questions only.	Duration of the examination = 03hours
Total Marks = 100	Candidates could be disqualified if you violate examination rules.
	Candidates are not allowed to communicate with and disturb fellow candidates during the examination.

**Answer any FOUR questions only.**

1. a) Define the term 'Guidance'. (5 marks)  
 b) Define the term 'Counselling' (5 marks)  
 c) Distinguish between Guidance and Counselling referring to five main aspects. (10marks)  
 d) In Sri Lankan context, many teachers find it difficult to assume the role of a counsellor Briefly discuss. (5 marks)
  
2. To play the role of counselor, the teacher is supposed to be equipped with necessary skills. UNESCO discusses those counselling skills under four main categories. Discuss. (25 marks)
  
3. a) The objectives of school guidance and counselling can be categorized into four main domains. What are they? (Discuss) (10 marks)  
 b) Provide two examples of objectives for each of the domains. (15 marks)

4. a) State two key principles that form the foundation of behavioral approach to counselling. (5 marks)
- b) Write a brief note on systematic desensitization as a technique used to bring about behavioral changes. (10 marks)
- c) Discuss modelling as a technique used in behavioral approach to counselling. (10 marks)
4. a) One of the earliest forms of Cognitive Behavioural Therapy (CBT) is considered to be Rational Emotive Behavioural Therapy (REBT) developed by Albert Ellis. Discuss the irrational thoughts that are summarized into three categories in REBT and their behavioural and emotional consequences? (13 marks)
- b) A major aid in Cognitive Behavioural Therapy (CBT) is what Albert Ellis (1957) called the ABC Technique of Irrational Beliefs. Explain. Illustrate it with an example. (12 marks)
5. a) State the underlying principles of humanistic approach to counselling. (15 marks)
- b) There are three key qualities that make for a good client centered counsellor/ teacher. Briefly discuss. (10 marks)
6. Write short notes.
- a) Token Economies as a counselling technique (8 marks)
- b) Five techniques of humanistic approach to counselling as outlined by McLeod (2015) (8 marks)
- c) Common misconceptions about guidance and counselling (9 marks)

-----END OF THE QUESTION PAPER-----

library

00025



FINAL SEMESTER EXAMINATION QUESTION PAPER

CODE - QP

Approved for Quality Management System

EDUCATION & TRAINING COURSE: B.ED (HONOURS) IN INFORMATION TECHNOLOGY

COURSE CODE: LC - 0851

YEAR 2 - SEMESTER I

Measurement & Evaluation in Education - BDP4093

Faculty	Department / Section/Division
Humanities and Education	Education Department

INSTRUCTIONS TO CANDIDATES	Date of the examination: 25/03/2021
Candidates could be disqualified if you violate examination rules.	Duration of the examination = 3 hours
Candidates are not allowed to communicate with and disturb fellow candidates during the examination.	Total Marks = 100 Marks

**Answer only five Questions**

**Question 01**

1. The process of measurement is an essential component of the learning system. Measurement has more administrative utility in education than evaluation. An evaluation process is useful in modifying and improving the learning system and instructional procedure.

- (i). What are the four principles of assessment? (8 Marks)
- (ii). What do you understand by the following terms? (12 Marks)
  - a. Measurement
  - b. Evaluation/Assessment
  - c. Test
  - d. Blueprint or Table of Specification

**Question 02**

There are two main types of assessment: summative assessment and formative assessment. At some level, both happen in almost all classrooms. The key to good assessment practice is to understand what each type contributes and to build your practice to maximise the effectiveness of each. Competency-based assessment is an example of a criteria-referenced assessment.

- (i) Compare and contrast formative and summative assessment. (8 Marks)
- (ii) Distinguish norm-referenced test from criterion-referenced test. (12 Marks)

**Question 03**

There are main steps of standardized test construction. These steps and procedures help us to produce a valid, reliable and objective standardized test.

- (i) Name the main steps of standardized test construction. (8 Marks)
- (ii) Explain test construction stages in brief (12 Marks)

**Question 04**

Classroom assessments can be designed primarily to guide teaching (formative purposes) or to support decisions made beyond the classroom (summative purposes).

- (i) Explain the different types of Assessment followed in the classroom. (8 Marks)
- (ii) How assessment will improve the teachers and schools? (12 Marks)



**Question 05**

Classroom assessment involves deciding how well students have learnt a given content or how far the objective we earlier set out had been achieved quantitatively. The assessment data so obtained can serve various educational functions in the school.

- (i) How can classroom assessment and evaluation of students help with teaching and learning? (8 Marks)
- (ii) Explain what your understanding by a table of specification and why teachers need it in test construction. (12 Marks)

**Question 06**

The reliability and validity of a measure is not established by any single study but by the pattern of results across multiple studies.

- (i) Explain the meaning and nature of the validity of measurement instrument. (8 Marks)
- (ii) Explain the meaning of reliability of measurement instruments. (12 Marks)

**Question 07**

The test data collection process consists of three basic steps: gathering necessary student work and other information, evaluating the results, and storing the data. The Gathering, Evaluating, and Storing (GES) process is used for both direct and indirect measures; however some of the specific steps will vary. Analysis is a process that provides better understanding of data and allows inferences to be made.

(i) Descriptive statistics are commonly used to describe test scores. Explain, with an appropriate example, what each of the following statistics means when it is used to describe test scores.

- i). Mean
- ii). Median
- iii). Mode
- iv). Standard Deviation [8 marks]

(ii) Below are the marks obtained from 16 students who sat for a monthly test in Science?

61, 82, 74, 58, 74, 58, 75, 54, 78, 65, 81, 38, 72, 98, 41, 74

- a. Calculate the mean. [4 marks]
- b. Calculate the standard deviation. [4 marks]
- c. Calculation of Z-Scores for the highest score. [4 marks]

-----END OF THE QUESTION PAPER-----



**END SEMESTER Examination Question Paper**

*Code - QP*

*Approved for Quality Management System*

**B.Ed (Honours) in Information Technology**

Course Code: LC – 0851

Year II – Semester I

**Computer Graphics & Multimedia - BDI4064**

<i>Faculty</i>	<i>Department / Section/Division</i>
<i>Humanities and Education</i>	<i>Department of Education</i>

INSTRUCTIONS TO CANDIDATES	<i>Date of the examination: 2021.03.26</i>
<i>Candidates could be disqualified if you violate examination rules.</i>	<i>Duration of the examination = 03 hours</i>
<i>Candidates are not allowed to communicate with and disturb fellow candidates during the examination.</i>	<i>Total Marks = 100 marks</i>

**Answer five questions only**

Question 1

- (i) Identify all components of Multimedia and briefly explain them. Further describe differences in their retention levels. (14 marks)
- (ii) Identify one of the above components of your choice and briefly describe its purpose, list 2 application areas and 2 examples of tools available to develop it. (6 marks)

(Total marks =20)

Question 2

- (i) Describe what is a 'pixel' using illustrations. (4 marks)
- (ii) A non-compressed bitmap image (.bmp) has a resolution of 720x576 with 8bits (depth) per channel in RGB color mode. Calculate following:
  - a. Number of pixels in this image (4 marks)
  - b. Calculate the file size in KB (6 marks)
- (iii) If a smart phone has 13 Mega pixel primary camera, calculate the approximate file size of a picture taken with it. (6 marks)

(Total marks =20)



### Question 3

- (i) Describe the architecture of animation and its measurements (5 marks)
- (ii) Briefly describe following terms:
- Key frame
  - Non key frame
  - Tweening
  - Motion Tweening. (12 marks)
- (iii) Describe the role of scripting when developing animation (3 marks)

(Total marks =20)

### Question 4

- (i) Identify and brief 3 properties of sound (9 marks)
- (ii) Describe following terms related to audio:
- Sample size
  - Sampling Rate. (6 marks)
- (iii) Write brief description of process and steps in applying sound effects using an Audio editing Tool (5 marks)

(Total marks =20)

### Question 5

- (i) Analog television technology is still used in Sri Lanka. Describe the key differences between NTSC and PAL (8 marks)
- (ii) Digital video recording devices use progressing scanning. Explain why this is more convenient compared to Analog recording devices when moving recorded footage in to the Computer. (4 marks)
- (iii) Briefly explain the 4 stages of Video production. (8 marks)

(Total marks =20)

### Question 6

- (i) Discuss key differences between Bitmap and Raster graphic technologies (8 marks)
- (ii) Explain the purpose of multiple viewports when using 3 Dimensional modelling tools. (6 marks)
- (iii) HTML 5 brought several conveniences for the Interactive Multimedia developers. Briefly list 2 of them. (6 marks)

(Total marks =20)



Question 7

- (i) In the last decade or two, plugins were a major component for web based multimedia and interactivity. Explain in your own words on the fate of browser plugins today (6 marks)
- (ii) Describe with an example how 2 dimensional translation works (8 marks)
- (iii) Compare and contrast RGB and CMYK color models (6 marks)

(Total marks =20)

Question 8

- (i) Describe the importance of text styles in both desktop publishing and multimedia. (6 marks)
- (ii) Explain following terms related to multimedia development
- a. Masking
  - b. Sans Serif
  - c. Chroma key (6 marks)
- (iii) Briefly differentiate lossless and lossy compression mentioning example file formats (8 marks)

(Total marks =20)

-----END OF THE QUESTION PAPER-----



END SEMESTER EXAMINATION QUESTION PAPER

CODE - QP

Approved for Quality Management System

EDUCATION & TRAINING COURSE: B.ED (HONOURS) IN INFORMATION TECHNOLOGY

COURSE CODE: LC - 0851

YEAR II - SEMESTER I

SOFTWARE PROCESS MODELLING - BDI4074

Faculty	Department / Section/Division
Management, Humanities and Social Sciences	Education

INSTRUCTIONS TO CANDIDATES	Date of the examination: 2021.03.26
Candidates could be disqualified if you violate examination rules.	Duration of the examination = 03 hours
Candidates are not allowed to communicate with and disturb fellow candidates during the examination.	Total Marks = 100 marks

**Answer for any five (05) questions only**

**Question 01**

- (i) What are the phases in Software Development Life Cycle? (02 Marks)
- (ii) Write two advantages in waterfall model. (02 Marks)
- (iii) Draw the representation of following models.
- a. Waterfall model
- b. Spiral Model (16 Marks)

(Total marks =20)

**Question 02**

Write the most suitable Software Development Model for following scenarios.

- (i) An Inventory management system is required for a shop. This is a stand-alone application. All the requirements are well defined. The project team has experience in developing this kind of systems before. (04 Marks)

- (ii) A software development team release a software and then according to user requirements they decided to increase the quality of their product. After do several modifications they release a new version of the software. (04 Marks)
- (iii) A Student Management System for CINEC Campus. (04 Marks)
- (iv) A Project is to develop a complete system for a new bank. System will have many users, interrelationships, and functions. The project has few risks related to requirements definition. These risks need to be reduced. (04 Marks)
- (v) A health care application linking all hospitals and healthcare services in Sri Lanka. Then patients can find all the hospitals and health care services in one place. Ministry requires all initial versions of the system to be launched first and then the system can be completed gradually linking all hospitals and healthcare services. (04 Marks)

(Total marks =20)

### Question 03

Assume that you need to implement a Classroom Management System for your school. Answer to following questions which are based on your implementation.

- (i) What are the techniques you can use to gather the requirements? (02 Marks)
- (ii) Write Two (02) non-functional requirements. (02 Marks)
- (iii) Write three (03) functional requirements which you have classified in this system. (03 Marks)
- (iv) Write three (03) user-story cards which describe the functionality of the system. Provide the answer according functional requirements you wrote in part (ii). (03 Marks)
- (v) What is SRS? What is the purpose of having a SRS and What is the structure of SRS? Briefly describe your answer. (10 Marks)

(Total marks =20)

### Question 04

- (i) What is software testing? Briefly explain. (02 Marks)
- (ii) List down five (05) software testing levels. (05 Marks)
- (iii) Briefly describe 'White-box testing' and 'Black-box testing'. (04 Marks)

- (iv) Devise a test plan with three (03) test cases for given scenario. (09 Marks)  
A simple program which will calculate the bill for customers who buy up to ten (10) different books, each costing between Rs.100.00 and Rs.2000.00.

(Total marks =20)

### Question 05

- (i) What is 'Agile Methodology'? Write the definition. (05 Marks)
- (ii) Write five (05) characteristics of agile methodology. (05 Marks)
- (iii) Write five (05) benefits of using agile methodology. (To customer, vendor or development team) (05 Marks)
- (iv) Write your opinion of using agile methodology for the implementations. (05 Marks)

(Total marks =20)

### Question 06

Draw a use case Diagram to given description. (20 Marks)

'Siksa' is a private school in Malabe. The principle of 'Siksa' decided to have an online student learning system due to the covid-19. Teachers can upload teaching materials to the system. They also can mark assignments through the system. Student can view lecture materials and upload answers to the system. Before all these functions both student and teachers must login to the system by providing user credentials. If the user credentials are invalid system should display an error message.

(Total marks =20)



**Question 07**

Write the usecase scenario for 'view lecture materials' function. (Even the description is same as Question 06, it is **not compulsory** to do Question 06 to do Question 07.) (20 Marks)

'Siksa' is a private school in Malabe. The principle of 'Siksa' decided to have an online student learning system due to the covid-19. Teachers can upload teaching materials to the system. They also can mark assignments through the system. Student can view lecture materials and upload answers to the system. Before all these functions both student and teachers must login to the system by providing user credentials. If the user credentials are invalid system should display an error message.

(Total marks =20)

**Question 08**

- (i) What is DFD? Briefly describe. (03 Marks)
- (ii) What are the advantages of using DFD? Write two (02). (04 Marks)
- (iii) Briefly explain Level 0 and Level 1 in Data Flow Diagrams. (05 Marks)
- (iv) Briefly describe the symbols, use to draw DFD (both 'Yourdon and Coad' and 'Gane and Sarson'). (08 Marks)

(Total marks =20)

-----END OF THE QUESTION PAPER-----