



FINAL EXAMINATION
NOVEMBER 2023

COURSE TITLE	SCIENCE AND TECHNOLOGY IN EARLY CHILDHOOD EDUCATION
COURSE CODE	ECLE2233
DATE/DAY	15 FEBRUARY 2024 / THURSDAY
TIME/DURATION	02:00 PM - 04:00 PM / 02 Hour(s) 00 Minute(s)

INSTRUCTIONS TO CANDIDATES :

1. Please read the instruction under each section carefully.
2. Candidates are reminded not to bring into examination hall/room any form of written materials or electronic gadget except for stationery that is permitted by the Invigilator.
3. Students who are caught breaching the Examination Rules and Regulation will be charged with an academic dishonesty and if found guilty of the offence, the maximum penalty is expulsion from the University.

(This Question Paper consists of 6 Printed Pages including front page)

*****DO NOT OPEN THE QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO*****

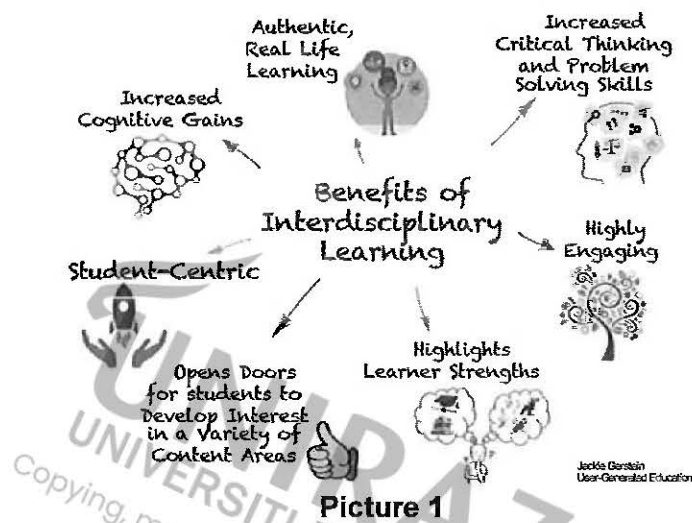
This question paper consists of FOUR (4) questions. Answer ALL questions in the answer booklet provided. [50 MARKS]

Terdapat EMPAT (4) soalan di dalam kertas peperiksaan ini. Sila jawab SEMUA soalan dalam buku jawapan yang disediakan. [50 MARKAH]

QUESTION 1

(14 Marks)

This question is based on the picture shown below:



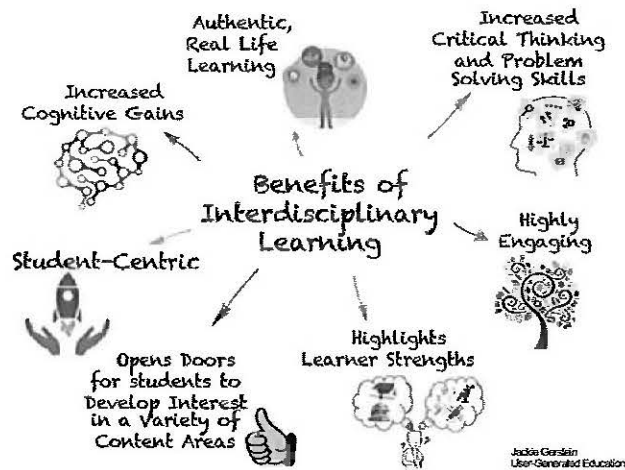
Picture 1

- a) Elaborate FOUR (4) props the teacher can use to teach interdisciplinary learning for Science and Technology activities. (8 marks)
- b) Briefly discuss THREE (3) roles of the teacher in planning interdisciplinary learning for Science and Technology activities. (6 marks)

SOALAN 1

(14 Markah)

Soalan ini adalah berdasarkan gambar di bawah:



Gambar 1

- Huraikan **EMPAT (4)** alat bahan yang boleh digunakan oleh guru untuk mengajar pembelajaran antara disiplin untuk aktiviti Sains dan Teknologi. (8 markah)
- Bincangkan secara ringkas **TIGA (3)** peranan guru dalam merancang pembelajaran antara disiplin untuk aktiviti Sains dan Teknologi. (6 markah)

QUESTION 2

(16 Marks)

POPSICLE STICK CATAPULT STEM ACTIVITY FOR KIDS



Picture 2

- a) Define STEM Education with appropriate examples. (6 marks)
- b) Refer to picture 2, and provide **FIVE (5)** benefits of this STEM activity for young children. (10 marks)

SOALAN 2

(16 Markah)

POPSICLE STICK CATAPULT
STEM ACTIVITY FOR KIDS



a) Terangkan pendidikan STEM bersama contoh yang sesuai. (6 markah)

b) Rujuk gambar 2, sediakan **LIMA (5)** faedah aktiviti STEM ini untuk kanak-kanak. (10 markah)

QUESTION 3

(10 Marks)

Explain **FIVE (5)** examples of inquiry-based learning in Science and Technology exploration for children aged 5 years old.

SOALAN 3

(10 Markah)

Terangkan **LIMA (5)** contoh pembelajaran berasaskan inkuiri dalam penerokaan Sains dan Teknologi untuk kanak-kanak berumur 5 tahun.

QUESTION 4

(10 Marks)

- Objective** : To develop a stop-motion video online.
Materials : Technology tools.
STEM Activities : Here's an excellent option for creative STEM learning. We've all seen the fun stop-motion videos online, but you probably never thought of creating one yourself or, better yet, with children. With just a few objects, a smartphone or iPad® and a stop-motion app, children can learn about the technology behind movie-making and create a video unique to their interests.

Based on this activity, explain **FIVE (5)** methods of assessment the teacher could use to assess children in this STEM activity.

SOALAN 4

(10 Markah)

- Objektif** : Untuk membangunkan video gerakan henti dalam talian.
Bahan : Alat teknologi.
Aktiviti STEM : Berikut ialah pilihan terbaik untuk pembelajaran STEM kreatif. Kita semua telah melihat video gerakan henti yang menyeronokkan dalam talian, tetapi anda mungkin tidak pernah terfikir untuk menciptanya sendiri atau, lebih baik lagi, bersama kanak-kanak. Dengan hanya beberapa objek, telefon pintar atau iPad® dan aplikasi gerakan berhenti, kanak-kanak boleh belajar tentang teknologi di sebalik pembikinan filem dan mencipta video yang unik mengikut minat mereka sendiri.

Berdasarkan aktiviti ini, terangkan **LIMA (5)** kaedah untuk menilai kanak-kanak dalam aktiviti berkaitan STEM tersebut.

***** END OF QUESTION PAPER *****