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UNIVERSITI SAINS MALAYSIA

Second Semester Examination  
Academic Session 2007/2008

April 2008

**RAK 344 – Sejarah dan Teori Senibina**  
***(History and Theory of Architecture)***

Masa: 3 jam  
*(Duration: 3 hours)*

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Sila pastikan bahawa kertas peperiksaan ini mengandungi **SEMBILAN** muka surat yang tercetak sebelum anda memulakan peperiksaan ini.

*Please check that this examination paper consists of **NINE** printed pages before you begin the examination.*

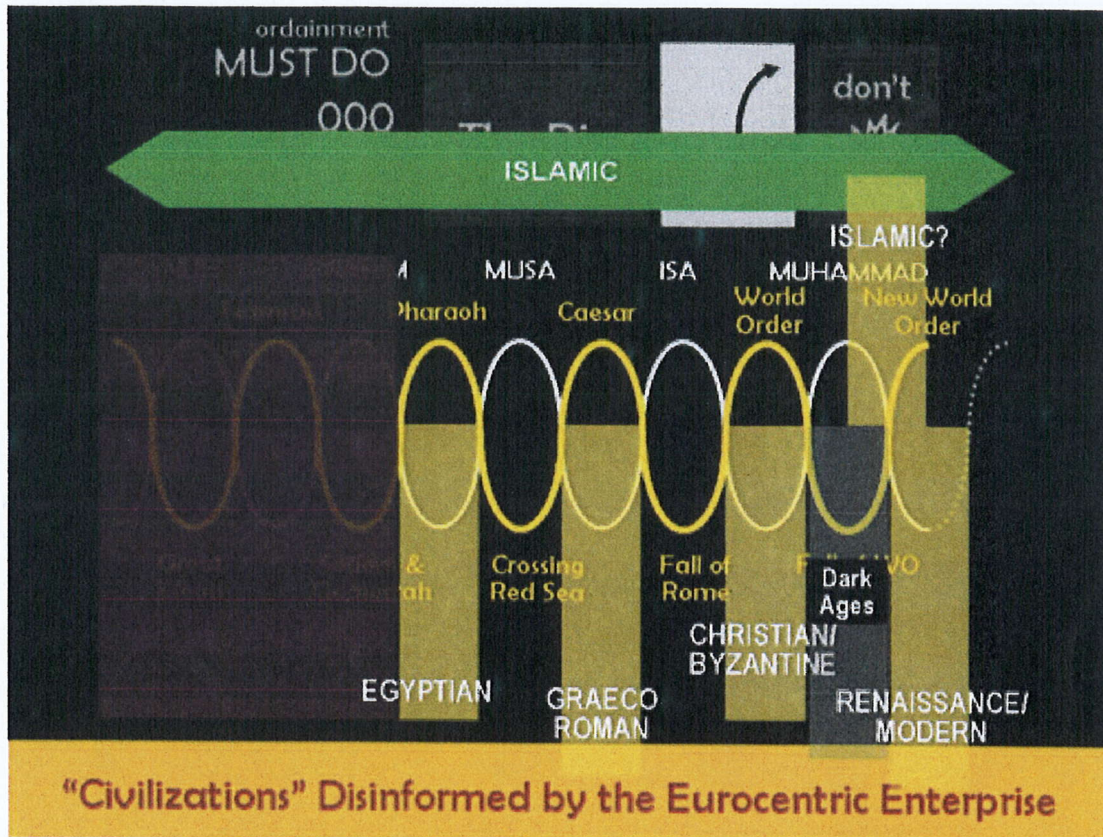
Pelajar dibenarkan menjawab semua soalan dalam Bahasa Inggeris ATAU Bahasa Malaysia sahaja.

*Students are allowed to answer all questions either in English OR in Bahasa Malaysia only.*

**Arahan:** Bahagian A: **WAJIB.**  
Bahagian B: Jawab **DUA** soalan.  
Bahagian C: Jawab **DUA** soalan.  
Bahagian D: Jawab **EMPAT** soalan.

**Instruction** **Section A : COMPULSORY.**  
**Section B : Answer TWO questions.**  
**Section C : Answer TWO questions.**  
**Section D : Answer FOUR questions.**

**Bahagian A: (WAJIB)**  
**Section A (COMPULSORY)**



**Gambarajah 1:** Sejarah Berkitar Lwn Sejarah Linear |

**Figure 1:** Cyclical Vs. Linear History.

1. (a) Menggunakan **Gambarajah 1**, terangkan erti "tamadun yang telah **terdisinformasi** oleh budaya Eropah"?

*Using **Figure 1**, explain what it means by "civilizations disinformed by European culture?"*

- (b) Apakah kedudukan arkitektur di dalam budaya **mendisinformasi** dan **didisinformasi** ini?

*What is the position of architecture in the culture that disinform or was disinformed?*

- (c) Apakah jalan keluar kepada masalah disinformasi ini?

*What is the way out of this disinformation enterprise?*

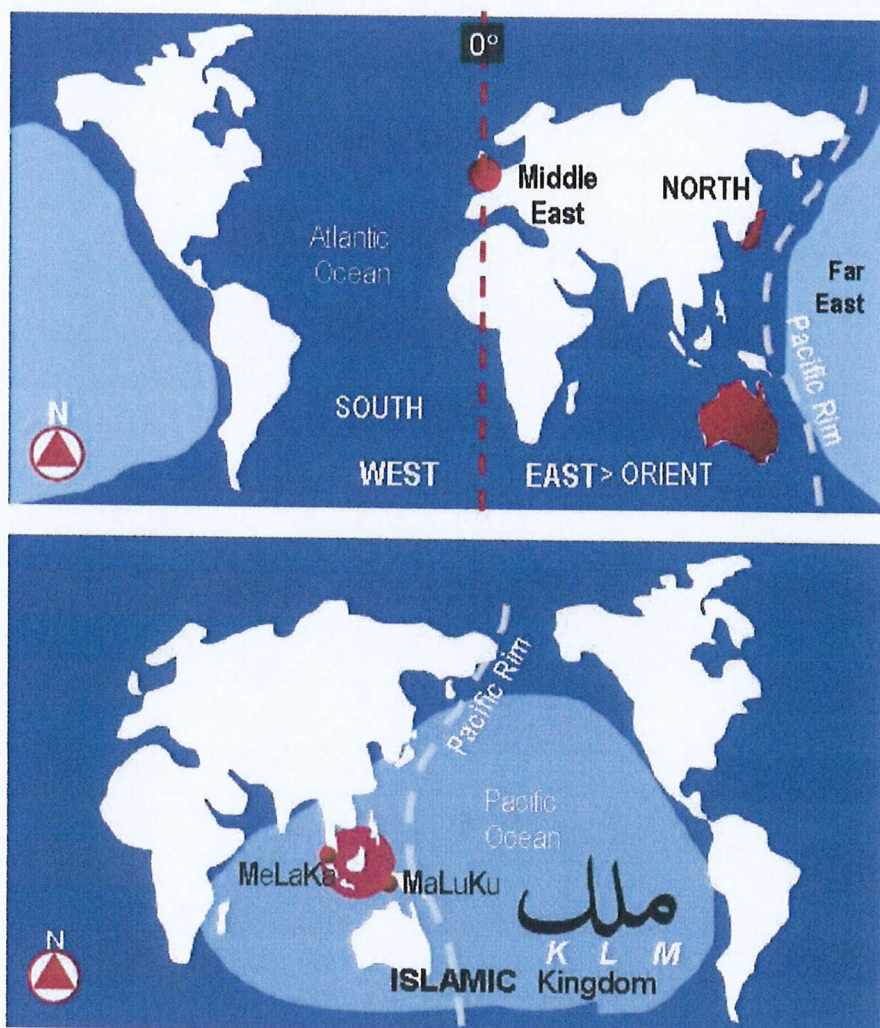
(20 markah/marks)

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**Bahagian B:** Jawab **DUA** soalan sahaja.  
**Section B:** Answer **TWO** questions only.

2. (a) Apakah ideologi asas dalam **Gambarajah 1**?  
*What is the basis of the ideology in **Figure 1**?*
- (b) Terangkan erti ideologi ini dalam konteks Penghasilan Arkitektur.  
*What is the significance of this ideology in the Production of Architecture?*
- (c) Tunjukkan bagaimana ideologi ini digunakan hari ini.  
*Show how this ideology is used today.*

(15 markah/marks)

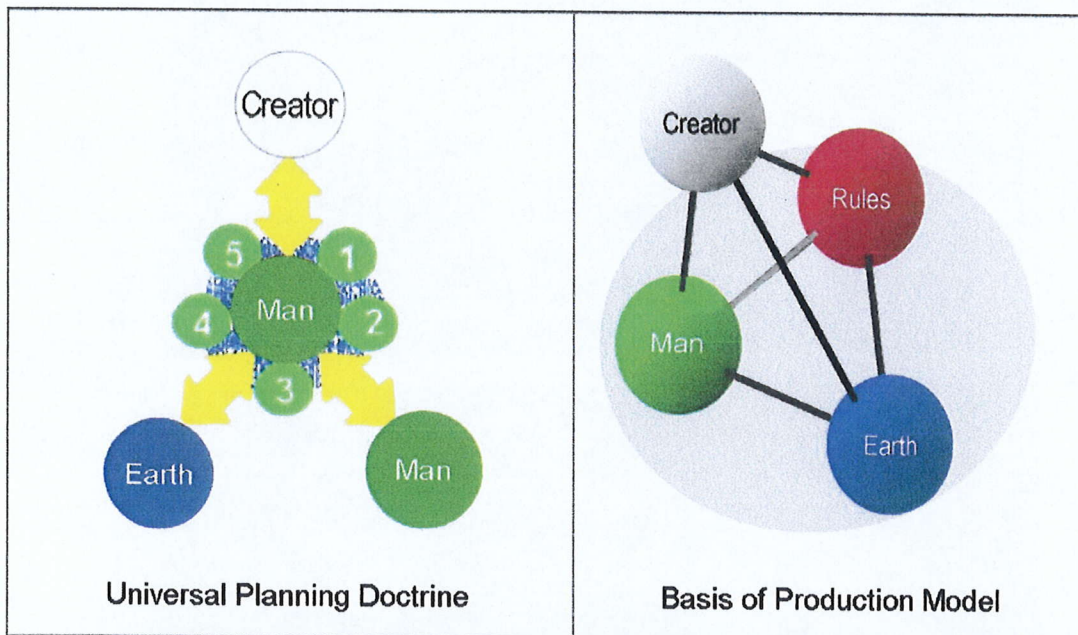


**Gambarajah 2:** Representasi Bumi/

**Figure 2:** Representations of the World

3. (a) Apakah ideologi-ideologi asas di dalam representasi-representasi bumi dalam **Gambarajah 2**?  
*What are the underlying ideologies in the representations of the world in **Diagram 2**?*
- (b) Apakah pentingnya perbandingan kedua representasi di atas?  
*What is the significance of the comparison of the representations?*
- (c) Tunjukkan bagaimana perbandingan ini boleh mempengaruhi Penghasilan Arkitektur.  
*Show how this comparison can effects the Production of Architecture.*

(15 markah/marks)



**Gambarajah 3: Perbandingan Ideologi**  
**Figure 3: Comparison of Ideologies**

4. (a) Apakah perbezaan utama di antara ideologi-ideologi yang mendasari skema dalam **Gambarajah 3**?  
*What is the main difference between the ideologies underlying the schemas in **Figure 3** ?*
- (b) Lakarkan satu contoh rekabentuk dari tiap satu skema ini.  
*Sketch an example of a design based on each of the schemas.*

- 5 -

- (c) Apakah kesan disinformasi kepada Penghasilan Arkitektur.  
*What is the effect of disinformation on Architecture Production.*

(15 markah/marks)

**Bahagian C:** Jawab **DUA** soalan sahaja.  
**Section C:** Answer **TWO** question only.

**Gambarajah 4:** Untuk Soalan 5 & 6.

**Figure 4:** For Questions 5 & 6.



**Gambarajah 4:** Penghasilan, Negara dan Kuasa

**Figure 4:** Production, State and Power

5. (a) Terangkan hubungkait Penghasilan, Negara dan Kuasa dalam **Gambarajah 4** menggunakan **arkitektur Eropah** dari mana-mana zaman.

*Explain the relationship between Production, State and Power shown in **Figure 4** using European architecture in any era.*

- (b) Apakah kedudukan arkiteknya di dalam skema ini?

*What is the position of the architect in this schema?*

(10 markah/marks)

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6. (a) Terangkan hubungkait Penghasilan, Negara dan Kuasa dalam **Gambarajah 4** menggunakan **arkitektur bukan Eropah** dari mana-mana zaman.

*Explain the relationship between Production, State and Power shown in Figure 4 using **non-European architecture** in any era.*

- (b) Apakah kedudukan arkiteknya di dalam skema ini?

*What is the position of the architect in this schema?*

(10 markah/marks)

7. **Petikan/ Extract:**

*"Architects working in Asian countries face crucial and fundamental challenges - this continent is so promising as to be the future of the world, but it is also the place with most complicated and severe problems. One consequence of free trade and service agreements, especially amongst Asia and Pacific countries is architect educated in one country may work in any country in the region. Special strategies in educating architects in this region should be devised in order to prepare future architects to deal with the challenges."*

**Bincangkan kenyataan di atas dalam salah satu konteks di bawah:**

**Discuss the statement in one of the contexts below:**

**(a) Cultural Sensitivity**

*The complexity caused by the great cultural diversity in this continent is magnified by the introduction of modernism and globalization, especially in its urban centers. The advancement of information technology and communication has made the articulation of the already complex regional identities even more difficult. Developing cultural sensitivity to work in multi-cultural setting as well as mastering design in one particular culture is crucial in enabling students to cope with such situation.*

**ATAU/ OR**

**(b) Economic Development**

*Economic growth in some parts of Asia is very promising, but this region also has some most severe economic problems. Architecture is definitely related to the economic conditions of a particular place. Students are notorious in not having sense of economic aspects of building. Great architecture is often associated with higher economic class with unlimited budget. However, solving architectural problems with extremely limited budget and working closely with poor people are also great achievement which educational institution should pay more attention to.*

**ATAUI OR****(c) Technological Advancement**

*Building construction and technology show immense progress and variety, especially in the rapidly growing centers in Asia. High-tech building materials and construction technology spread through Asia and the Pacific especially in mega-cities such as Tokyo, Bangkok and Jakarta. Architects face challenges in developing the genius loci; using appropriate construction methods and building materials today.*

(10 markah/marks)

**BAHAGIAN D: Jawab EMPAT soalan.****Section D: Answer FOUR questions.**

8. Lakarkan rekabentuk konsep pembinaan struktur kubah bangunan Pantheon dan kubah bangunan Hagia Sophia. Nyatakan **Lima (5)** perbezaan elemen-elemen utama binaan yang terdapat antara kubah bangunan Pantheon dan Hagia Sophia.

*Sketch the design construction concept of dome's structure in Pantheon and Hagia Sophia building. You need to indicate the differences of **Five (5)** primary dome's construction elements between Pantheon and Hagia Sophia building.*

(10 markah/marks)

9. Stonehenge merupakan salah sebuah monumen yang disenaraikan oleh Warisan Sedunia UNESCO, dan salah sebuah monumen keajaiban dunia. Huraikan (dengan bantuan lakaran):

- (a) Mesej konsep rekabentuk binaannya kepada perkembangan senibina.  
 (b) Bagaimana ia dibina (proses membina Stonehenge)?

*Stonehenge is one of the monuments enlisted under the UNESCO's World Heritage Lists, and one of the wonders of the world. By using your sketches, describe:*

- (a) *Its message to the concept of the construction design in architectural development*  
 (b) *How this monument was constructed (construction process)?*

(10 markah/marks)

10. Anda dikehendaki menyediakan satu lakaran lukisan pelan sebuah 'basilica' yang dibina oleh orang-orang Romawi semasa Zaman Awal Kristian. Nyatakan elemen-elemen ini dalam pelan dan keratan lakaran anda iaitu:

- (i) Apse
- (ii) Nave
- (iii) Aisle
- (iv) Atrium
- (v) Transept

*You are required to draw (sketches) one plan and one section of basilica building built by the Roman master builders during Early Christian Period. Please indicate these elements in the plan and section you draw, as follows:*

- (i) Apse
- (ii) Nave
- (iii) Aisle
- (iv) Atrium
- (v) Transept

(10 markah/marks)

11. Lakarkan pelan dan keratan sebuah bangunan yang mempunyai rekabentuk senibina Cina yang menggunakan sistem 'bracket' (tou-kung atau dou-gong atau sistem balak Cina). Nyatakan **Lima (5)** elemen binaan dalam lakaran-lakaran anda.

*Sketch a plan and section of a building which applies 'bracket' system (tou-kung or dou-gong) in the Chinese architecture. You are required to identify Five (5) construction elements in your sketches.*

(10 markah/marks)



12. Lakarkan rekabentuk senibina masjid 'Arab' (pelan lantai, pelan bumbung dan keratan) yang dibina di wilayah Arab (Timur Tengah dan Utara Afrika). Tandakan **Lima (5)** elemen ruang/object utama dalam ekpresi senibina masjid 'Arab' ini dalam lakaran anda.

*Sketch a plan, section and roof plan of 'Arab' mosque architecture built in Arab regions (Middle East and North Africa). Please identify **Five (5)** primary elements in this architectural expression of 'Arab' mosque in your sketches.*

(10 markah/marks)