

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2017

Program: B. Plan.	Semester –	Ist
Subject (Course): Materials & Principles of Construction	Max. Marks	: 100
Course Code : BPLC131	Duration	: 3 Hrs
No. of page/s: 2		

Section – A [05×04 =20 Marks]

Attempt <u>all</u> questions

- Q1. A) Draw a brick with all the labeling.
 - B) Write classification of brick on the basis of common practice and materials.
- Q2. Define Timber Flooring. What are the categories of timber flooring?
- Q3. What are the functions of a foundation?
- Q4. Discuss Service Ducts. Which is the fair placing for a service ducts?
- Q5. Explain culverts, flyover and bridges. With the help of sketches

Section – B [04x10 =40 Marks]

Attempt all questions

Q6. Explain Paints and Varnishes. What are the various types of paints and varnishes?

Q7. What is Damp Proofing. Explain various method of Damp Proofing?

Q8. What is the Procedure for Setting out a Building Plan on site?

- Q9. Explain the Following Building Component-
- a) Stairs, b) Sills, c) Chajjas, d) Parapet, and e) Coping

Section – C [02×20 =40 Marks]

Attempt all questions

Q10 Draw a **neat and clean** typical **external wall section** from foundation till coping of a building. It should be in a proper scale with the dimensions.

Q11. What is Site Planning? Explain the various components of site.





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Section – A [05×04 =20 Marks]

Attempt <u>all</u> questions

- Q1. Write 8 characteristics of good timber.
- Q2. Discuss Service Ducts. Which is the fair placing for a service ducts?
- Q3. Explain the following
 - a) Combined Foundation b) Spread Foundation
- Q4. What is landscape design? What are the types of landscape?
- Q5. Explain any two of the following:
 - a) Asbestos, b) Expansion Joint, c) Fiber Reinforced Plastics

Section – B [04x10 =40 Marks]

Attempt all questions

Q6. What is the Procedure for Setting out a Building Plan on site?

Q7. What is flooring? Explain the various types of flooring.

Q8. Explain the types of connection between two walls in detail. Explain by sketching the Plans of wall connections

Q9. What are the basic components of a structure? Explain any 5 elements of building with the help of sketches.

Section – C [02×20 =40 Marks]

Attempt all questions

Q10 Draw a **neat and clean** typical **external wall section** from foundation till coping of a building. It should be in a proper scale with the dimensions.

Q11. Define Roads. Explain various components of Roadways? What are the layers of carriageway? Explain with the diagram.



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