**CEGE0021: Civil Engineering in Practice**

**Problem Paper 1**

**Q1.** 533 × 210 × 92 UB in S275 steel

**Q2.** 533 × 210 × 109 UB in S275 steel

**Q3.** (i) 610 × 229 × 113 UB in S450 steel (ii) 2 flats 50mm × 20mm thick

**Problem Paper 2**

**Q1.** (i) 203 × 203 × 60 UC in S275 steel; (ii) 203 × 203 × 52 UC in S275 steel;

(iii) 254 × 254 × 73 UC in S275 steel

**Q2.** 305 × 305 × 118 UB in S275 steel

**Q4.** Unsatisfactory ???

**CEGE0021: 2019/20 Examination**

Q1 (b) (i) Suitable

(ii) Unsuitable

Q2 (b) Unsuitable

Q3 (a) (i) 467.6 kNm

(ii) 420.3 kN

(b) say 21 studs @ 190 c/c

(c) no additional tension bars required

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Q1 (b) Suitable

(c) Unsuitable

Q2 (a) Suitable