

c) Explain inter-granular corrosion with suitable diagram. (04)

Q. 4 a) What are Alloy Steel? Explain special effects of the following metals on properties of alloy steels. (06)

i) Ni ii) Co iii) Mo iv) Cr . v) W

b) What is metallic coating? Distinguish between Galvanizing and Tinning (05)

c) Explain Laminar composite with suitable example (04)

Q. 5 a) What is meant by knocking in Internal combustion engine? Define Octane and Cetane Number. Name any two antiknock agents (06)

b) Write short note on following :- (05)

i) Compaction ii) Sintering

c) Define matrix phase of composite materials. State functions of matrix phase. (04)

Q. 6 a) With a suitable diagram explain electrochemical mechanism of rusting of Iron in neutral aqueous medium (05)

b) A coal sample was found to contain the following composition by weight: -- (05)

:C=81%,H=5%,S=1%,O =8%,N =1%,And Ash=4%.Calculate the minimum amount of air required for complete combustion of 2 kg of coal

c) i) Distinguish between Brass and Bronze (03)

ii) Give composition and uses of the Duralumin (02)
