


①

P.P. code - 63690

- 1A
- (i) Posterior
 - (ii) Lithostratigraphy
 - (iii) August Weismann
 - (iv) Foraminifera, Dinoflagellates, Conodonts, etc.
 - (v) Brachial valve
 - (vi) order of superposition
 - (vii) radial / Meridional
 - (viii) calcium carbonate
 - (ix) More
 - (x) Phragmocone

- 1B
- (i) It is a process in which organisms diversify rapidly from an ancestral species into a multitude of new forms.
 - (ii) based on presence of fossilized flora or fauna in sedimentary rock telling the age.
 - (iii) Parallel evolution: similar development of a trait in distinct species that are not closely related
 - (iv) Having one muscle scar eg. Pecten, Spondylus etc.
 - (v) Have short range, wide distribution which makes them useful for biostratigraphy eg. Trilobites
 - (vi) straight, simple suture
 - (vii) Periproct = anus and peristome = mouth
 - (viii) Two series of theca on a stipe 
 - (ix) straight-line evolution
 - (x) Abrupt and erratic change at gene level.

Q.2 a) Bed → Member → Formation → Group → supergroup (2)

2 Marks for each description

b) Explanation of seq strati (5 Marks) + Regression (5)

c) chronostratigraphy (5 Marks) Geochronology (5 Marks)

Eonothem
 Erathem
 system
 series
 stage
 chronozone

Eon
 era
 Period
 Epoch
 Age
 chron-

d) Biozones are:

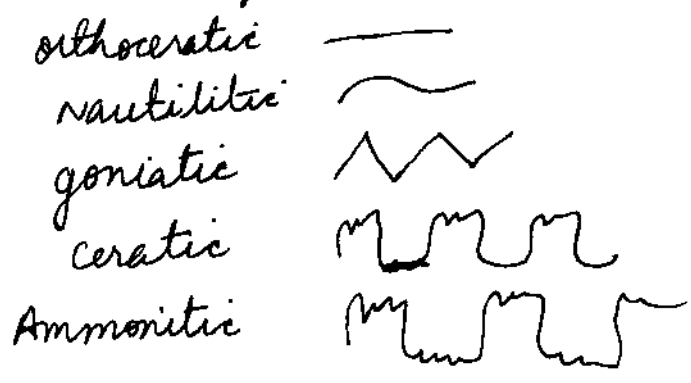
- (i) Assemblage biozone
- (ii) Acme biozone
- (iii) concurrent biozone
- (iv) Interval
- (v) Taxon

Q.3

a) Definition 2 & applications, for each biostratigraphy, economic, paleoecology, climate reconstruction, paleogeography, evolution, etc.

c 9.4

b) 5 Marks for morphology of cephalopod + 5 Marks for correct evolutionary trend



Q.3b) ³ mould, cast, gastroliths, coprolites, Petrification
Permineralisation etc.
2 Marks for conditions + 2x4 each for modes

c.) Evolution in facial suture 2 Marks for each
" " eyes evolutionary
" " pygidium trend
" " glabella
" " thorax etc.

d.) Theory of Natural selection 10 Marks.

Q.4 a) Trace fossils - Ichnofossils, imprints of life activities

b.) pl. see on page 2

c.) - More number of plates 2 Marks for each
- differentiation in pores
- More tube foot
- sunken stomata (Pelalloid stomata)
- spines

d.) types of dentition → Taxodont, schizodont
heterodont, desmodont, dysodont.

Q.5.) a) Walther's law states that any vertical progression of facies is the result of a succession of depositional environments that are laterally juxtaposed to each other. 4 Marks.

b) Volcanic explosion, Meteoritic impact, climate change, sea-level change, Abrupt change, Tectonism, etc. (1 Mark for each reason) ③

- (c.) Theca became more complex in shape (y)
stipes changed from pendent to scandent and
decreased in number
- d.) Proparian, episthparian, gonatoparian, hypoparion
- e.) calyx, epitheca, tabulae, dissepiments,
fossula, growth lines etc.
- f.) The structure cutting is recent / younger
than the structure being cut.